



Ku-ring-gai Council Play Space Strategy

Volume 1

Analysis and Principles



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Prepared for Ku-ring-gai Council by



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Issued January 2020

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VOLUME 2 PLAY SPACE ASSESSMENTS

1. executive summary

This Play Space Assessment aims to guide the provision, development and management of outdoor play spaces in public parks across the Ku-ring-gai Local Government Area (LGA).

In the first sections the two-volume report establishes a vision, philosophy, criteria and principles for effective play provision across the Ku-ring-gai Council.

Section 2 sets out a vision for play and explains the terminology and key concepts used in this report.

Section 3 introduces the location of play spaces and Map 1 shows their distribution across the Ku-ring-gai LGA. This section includes a table listing all the spaces and their classification.

Section 4 introduces some important planning principles applied to parks and play spaces and sets out a classification system for play spaces in order to establish benchmarks for the provision of amenities and other design criteria expected for each site.

Section 5 takes a broader perspective and analyses demand and supply - the current distribution of play spaces and opportunities across all of the suburbs of Ku-ring-gai, and an overview of demographic factors affecting demand for play spaces. It includes a series of maps showing demographic data, play space distribution, areas of high dependence and areas poorly served by parks for play.

Section 6 introduces the qualitative aspects of play space design, and the approach taken to assessing play value on each site. This section introduces the ideas underlying the individual site assessments (Volume 2) and illustrates some of the qualitative aspects of play value. It raises the issue of nature play.

Section 7 highlights key issues, and makes recommendations for staged action resulting from the site assessments.

Section 8 discusses play space management, and maintenance. The objective is to develop an efficient, cost effective management approach to play provision that is also consistent with the vision for play discussed at the beginning of this report.

Volume 2 is organised by suburb and includes an assessment report for each existing play space.

2. introduction and scope



About Ku-ring-gai

Ku-ring-gai Council is located on the leafy North Shore 16 kilometers north of Sydney's CBD. It straddles the Pacific Highway and the North Shore train line, the main transport arteries between Sydney and Newcastle.

Bounded by Garigal National Park in the east, Lane Cove National Park in the west and Ku-ring-gai Chase National Park in the north, this LGA is a beautiful leafy environment with a unique natural setting.

Over 120,000 people live in Ku-ring-gai, and this is one of NSW's most socially advantaged LGA's. While many residents live in low density housing, there are areas where medium and higher density housing is increasing, in accordance with LEP 194¹ and KLEP 2015², with implications for demands for open space, parks and play areas.

Open space

While many residential areas are well served by parkland, national parks and open space, there are areas within Ku-ring-gai that have a shortage of usable, accessible open space close to residential areas. Council prepared an Open Space Acquisition Strategy in 2007 that addresses this situation strategically as the population grows.

Play spaces in Ku-ring-gai

Ku-ring-gai Council has 104 designated public play spaces, categorized as local, district or regional, distributed throughout the local government area in sportsgrounds, parks and reserves.

The play space asset maintenance and routine inspections are managed within the Operations Department. Council engages an independent assessor to perform an annual audit and the most recent assessment determined that Ku-ring-gai play space equipment is in good condition and maintained to a good standard.

However, ideas regarding overall play space design, play provision and access have changed over the years and the design of play spaces in Ku-ring gai still reflects best practice of former years. Play space design now needs to better reflect the community's needs of today.

Planning, design and documentation of new play spaces, as well as upgrades, are funded through the Capital Works Program and managed by both the Strategy and Environment, and Operations Departments by Council's Landscape Architectural staff.

Replacement of one-off equipment failures is managed by council's Operations Staff and funded by the recurrent budget.

A Play Space Strategy for Ku-ring-gai

Due to the economic pressure on planning, designing and maintaining these important assets, and the simultaneous need to also meet the increasing outdoor play and recreation needs of the community, Council has commissioned this Strategy to guide future play provision, rationalisation and investment across the Ku-ring-gai LGA.

¹ Local Environmental Plan

² Ku-ring-gai Local Environmental Plan 2015

Scope

This report therefore aims to:

- Establish a vision and philosophy for play provision in the Ku-ring-gai LGA.
- Develop criteria and principles for effective play provision, including play value, demand, supply and distribution.
- Map and analyse current distribution of play spaces.
- Analyse current and predicted demographic indicators for the Ku-ring-gai LGA and review the current Ku-ring-gai play space provision and distribution in the light of these data.
- Identify areas of oversupply and undersupply, highlighting gaps in provisions and under-used play spaces and sites where play spaces could be removed.
- Briefly assess existing play spaces for quality of play experiences (play value), age groups catered for, access, and improvement opportunities and make brief recommendations for each.
- Review the provision of inclusive/accessible play spaces.
- Refer to the Everyone Can Play Guidelines for play space design and evaluation ¹
- Prioritise the removal, provision and upgrade of play spaces and summarise the budget implications of removing or adding play spaces.
- Discuss engaging the Community and garnering support.
- Raise other issues as they affect play in Ku-ring-gai and make recommendations.
- Assist with asset management, record keeping and processes where possible in order to develop a management approach to play provision consistent with the vision.

This project is limited to the assessment of Ku-ring-gai Council's public play spaces and does not cover early childhood centre-based play spaces.

a vision for play

It is recommended that Council adopts the following approach to underlie the provision of play opportunities within the Ku-ring-gai LGA.

The Ku-ring-gai Council respects the rights and need of children to play².

The establishment of Ku-ring-gai Council as a child-friendly and inclusive LGA will benefit residents and visitors of all age groups.

Council is committed to the provision of high-quality play environments across the Ku-ring-gai LGA. These will be appropriate, accessible, inclusive, stimulating and challenging, and realistic budgets need to be provided for provision and maintenance.

Play is significant in the development of all children

Play is critically important to all children in the development of their physical, social, cognitive, emotional and creative skills. It is the process of a child's own self-directed learning and as such is valid for all ages of children. It is a fundamental and integral part of healthy development – not only for individual children, but also for the society in which they live. All children have the right to play, regardless of their abilities

The qualities of the physical environment have a significant effect on outdoor play.

Play requires access to a broad range of environments and play opportunities. Decision-making at all levels of government should explicitly foster and support play. During general decision-making processes, Council will consider the impact on children's opportunities to play and the broader implications for children's health and wellbeing. The impact of modern society on children's lives has significantly restricted their opportunity to play freely and has impacted upon play opportunities in the general environment.

terminology and explanations of key concepts

Parks vs Play Spaces

Most public provision for play typically takes place in parks. The location, size and distribution of parks determine the availability of most play opportunities, so the two cannot be considered in isolation. This document is therefore inevitably about both parks and play spaces.

Play Space

In this report, the term *Play Space* has been generally applied to any purpose-built settings for play. Play spaces frequently include play equipment and their accompanying areas of impact absorbing surfacing, but they may also include, (or solely consist of) play elements such as trees, boulders and logs, sand, planting, earth -forming, sculpture, musical items or other natural or man-made elements provided for the purpose of play. The play space can also include open areas of lawn; a small forest; hard or soft surfaces for ball games, ping pong tables, and mounds or walls if these are provided in the context of a park or play setting.

Play Provision

Play provision is a term used throughout this document to encompass a range of ways of providing for play in public spaces. It can include play space equipment, cubbies or nature play areas, ball courts and open grass areas, and may also include areas of planting and bush, water, hard surfaces, paths, art works and other landscape elements. These may have been purpose-designed, or may be appropriated by children for their own purposes.

Play Elements

Play elements include man-made items such as play equipment, as well as natural items such as boulders and logs, sand, planting, earth forming, sculptures etc., which typically have other purposes and sources, but have been brought into a play space to support and enhance play. In this context they become *play elements*.

Play Equipment

In this report, the term *play equipment* has been used to mean purpose-designed structures intended to support physical, creative, imaginative or social/dramatic play. In this context, this category does not include fitness equipment.

Nature Play Space

For the purposes of this document a “Nature Play Space” is interpreted here to mean a purpose-provided outdoor space intended for play and social interaction that:

- includes natural materials (such as durable timber, logs, rocks/stone, grass, trees, and other plant materials) as well as terrain, paths and other components of the space
- is inherently open-ended and therefore adaptable for children’s purposes
- deliberately provides some loose materials with which children can engage (these may be sand in some cases; pebbles, dirt, flowers, gum nuts etc., twigs and small branches). Plants need to be selected for this interest
- encourages parents and carers to support and encourage children to develop their skills, self-reliance and adaptability and take on challenges

- possibly receives less intensive management (and commensurately reduces the expectations of the community for the more intense management found in other types of play spaces)
- is managed with the expectation that children will interact with some loose materials and that this is an acceptable purpose of these spaces; some dirt and mess will be an inherent characteristic
- is backed up by an education and marketing program across the Ku-ring-gai LGA
- is risk-managed to reduce exposure to litigation.

Amenities

Play spaces frequently also include *amenities* such as furniture, barbecues, bins, lights, shade structures, toilets, drinking fountains, vegetation, paths and paving, fences, and other items. These are typically provided for social amenity but some might frequently double up as play elements, such as:

- a path providing for hopscotch or toddler bikes and wheeled access
- boulders and logs providing for both seating and balancing ,as well as retaining
- low walls for climbing and balancing, as well as for seating,
- vegetation providing a source of play materials (such as gum nuts, sticks and flowers), or
- a drink fountain providing a source of water for play.

The role of accessible, inclusive amenities in supporting both play and social interaction and community building should not be underestimated. The placement of furniture will affect how well these areas encourage social interaction and inclusion.

Children, Teenagers, Adults

In general, this report aims to address the needs of children. The term 'children' is however used rather loosely and is not intended to exclude older children, teenagers or adults. Indeed, play between adults and children, and intergenerational play, is encouraged.

The needs and interests of different age groups vary as children grow up but they also overlap. Ideally most parks and play spaces should provide some spaces or activities that can be used by people of any age, including teenagers, adults and older people regardless of the population profile that may currently dominate the age structure of the local resident community.

Across all residential precincts, Council will be able to ensure that as young children become teenagers, adults and older adults, the network of parks and play spaces will continue to meet their needs through the provision of:

- a diverse choice of activity types and settings for play and outdoor recreation,
- varying degrees of challenge,
- accessible and inclusive spaces that have a multitude of functions and possibilities, and
- design that encourages social interaction.

Multi-Age Demographics and Provision for Play in Parks

Planning for the needs of specific age groups can be difficult because investment in parks infrastructure needs to have a shelf life of many years, during which time children grow up and their interests change. Information on age groups is therefore used with caution and while larger numbers of children may indicate the need for more play provision, a lack of children in other areas should not be used to justify the disposal of open space. Although communities may be planned with a particular demographic group in mind, times will change and there will always be blended families with multiple age groups, visitors and exceptions to the main predicted demographic group, whose needs must be met.

Communities dominated by older adults and retirees still need a good framework of parks and play spaces. Grandparents have taken on an increasing role as childcare providers, and play spaces which are accessible and inclusive are increasingly useful for this group, as well as for the general social and recreation activities of multi-age families and groups.

For these reasons, a basic framework of open space, parks and play spaces will always be required, ready to be adapted if necessary in small ways as waves of children move in, grow up and move on. Some details can be changed, and the specifics of play elements can be adjusted over time if required, but the parks and open space framework must remain in place.

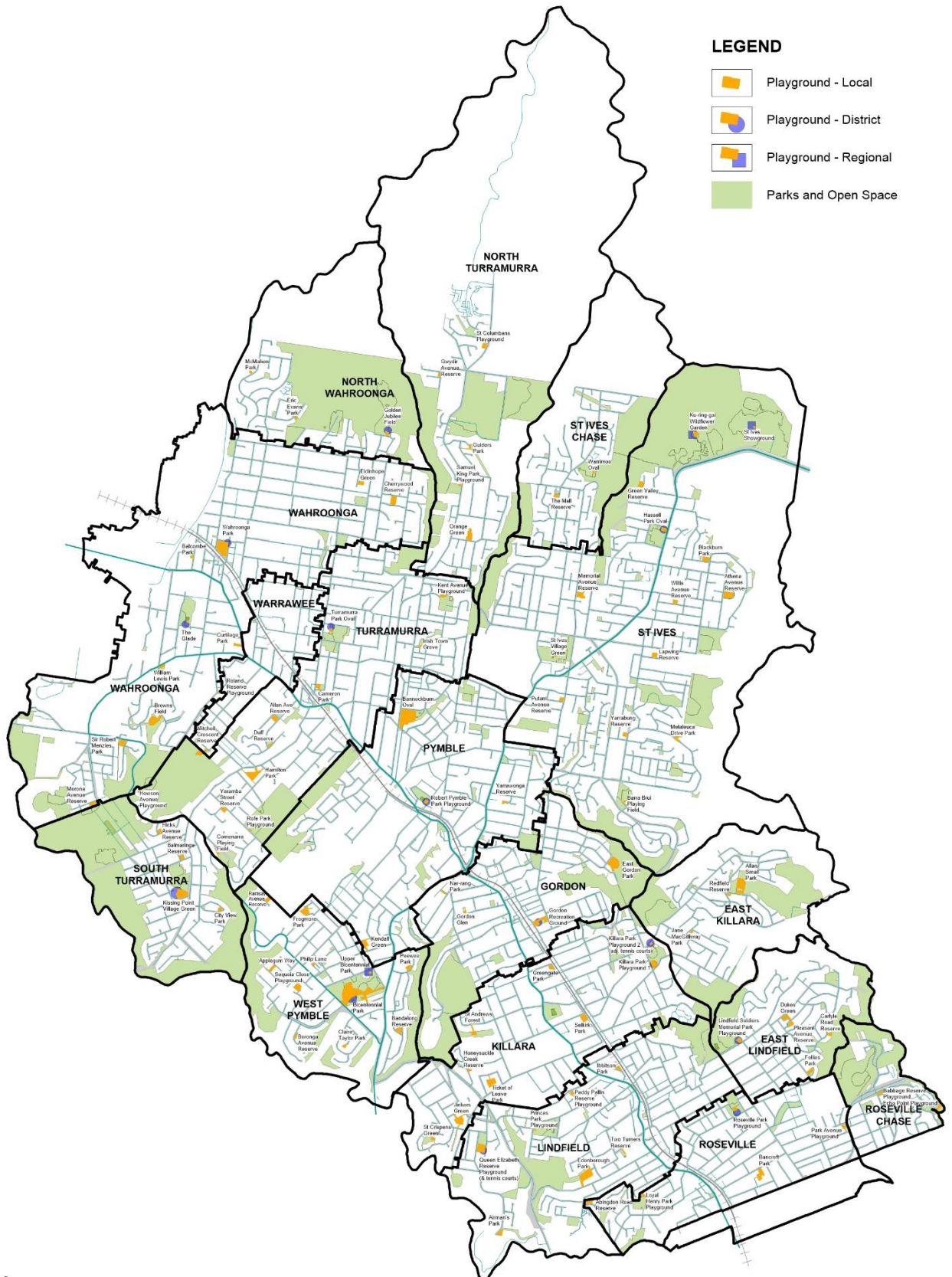
Parks should be retained to provide recreation spaces even when the current wave of children has grown up and moved on, and the play space in the park can be removed or changed.

Where parks are determined to be surplus to need, any funds generated from their sale should be invested back into play provision, including programming.

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3. location of play spaces in Ku-ring-gai





MAP 1

Existing playgrounds in
Ku-ring-gai L.G.A. and
their classification

TABLE 1 LIST of play spaces in Ku-ring-gai by Suburb and Classification

Ledger no.	PLAYGROUND	SUBURB	LOCATION	CLASSIFICATION
843307	Gordon Glen	GORDON	55-63 Dumarsq Street	Local
843271	Nar-rang Reserve	GORDON	70 Ridge Street	Local
843350	Gordon Recreation Reserve	GORDON	63A Werona Avenue	District
843133	Darnley Oval/ East Gordon Park	GORDON	Elgin/ Darnley Streets	Local
843157	Allan Small Park	KILLARA EAST	Saiala Road opposite nos.33-41	Local
843152	Jane McGillivray Park	KILLARA EAST	cnr. Eastgate and Fairburn Avenues	Local
843155	Redfield Reserve	KILLARA EAST	cnr. Saiala and Redfield Roads	Local
843311	St Crispens Green	KILLARA	between nos.16-22 Albert Drive	Local
843314	Jinkers Green	KILLARA	between nos.31-33 Charles Street	Local
843318	Ticket of Leave Park	KILLARA	Coronga Cres /Fiddens Wharf Road	Local
843300	St Andrews Forest	KILLARA	between no's 80 and 82 Spencer Road	Local

Ledger no.	PLAYGROUND	SUBURB	LOCATION	CLASSIFICATION
843309	Honeysuckle Creek Reserve	KILLARA	corner Bowes and Gurin Avenue	Local
843172	Selkirk Park	KILLARA	cnr. Marian Street and Culworth Avenue	Local
800540	Greengate Park	KILLARA	Cnr Bruce Ave and Greengate Lane	Local
843365	Killara Park	KILLARA	Stanhope Road	District
843782	Morona Ave Reserve	WAHROONGA	End of Morona Avenue	Local
843235	Sir Robert Menzies Park	WAHROONGA	cnr. Jordan Road and The Comenarra Parkway	Local
843225	Browns Field	WAHROONGA	no.97A Campbell Drive	Local
843216	William Lewis Park	WAHROONGA	corner Fox Valley Road and Lucinda Avenue	Local
843211	The Glade Oval	WAHROONGA	cnr. The Glade and Koora Ave south to Tanderra St	District
800351	Curtilage Park	WAHROONGA	1536 Pacific Hwy opposite Warrawee bowling club; next to Mahratta	Local
843	Balcombe Park	WAHROONGA	12 Woonona St	Local
843058	Wahroonga Park	WAHROONGA	Coonanbarra Road between Illoura Avenue Millewa Avenue and Stuart Street	District

Ledger no.	PLAYGROUND	SUBURB	LOCATION	CLASSIFICATION
843055	Eldinhope Green	WAHROONGA	opposite no.8 Morris Avenue	Local
843052	Cherrywood Reserve	WAHROONGA	no.9A Bunyana Avenue through to between nos.12 and 14 Cherrywood Avenue	Local
843002	Eric Evans Park	NORTH WAHROONGA	between 33 and 35 Barton Close	Local
843062	McMahon Park	NORTH WAHROONGA	between nos.70 and 72 Curtin Avenue	Local
843005	Golden Jubilee Field	NORTH WAHROONGA	end of Westbrook Avenue north side of Esk Street	District
843036	Orange Green	NORTH TURRAMURRA	between nos.16 and 24 Allara Avenue	Local
843006	Samuel King Oval (North Turramurra Park)	NORTH TURRAMURRA	east side of Bobbin Head Road opposite nos.289-299	Local
843210	Gwydir Avenue Reserve	NORTH TURRAMURRA	cnr. Stonecrop Road and Gwydir Avenue	Local
843013	Guiders Park	NORTH TURRAMURRA	no.34 Glengarry Avenue	Local
000710	St Colombans Park	NORTH TURRAMURRA	Bobbin Head Road	Local
843232	Mitchell Crescent Reserve	WARRAWEE	nos.16 and 18 Mitchell Crescent to behind 16-22 Mitchell Crescent	Local

Ledger no.	PLAYGROUND	SUBURB	LOCATION	CLASSIFICATION
843218	Roland Reserve	WARRAWEE	between 40-46 Roland Avenue	Local
843327	Abingdon Road Reserve	LINDFIELD	corner Eton Road and Abingdon Road	Local
843321	Edenborough Park	LINDFIELD	end of Edenborough Road	Local
843173	Ibbitson Park	LINDFIELD	cnr. Wolseley Road to railway line	Local
843163	Lindfield Soldiers Memorial Park	LINDFIELD	opposite nos.91-115 Tryon Road (next to no.64 Tryon Road)	District
843328	Paddy Pallin Reserve	LINDFIELD	between nos.47-49A Highfield Road and 42-44 Provincial Road	Local
843339	Princes Park/Primula Oval	LINDFIELD	cnr. Highfield Road and Primula Street	Local
843330	Two Turners Reserve	LINDFIELD	between nos.24-26 Gladstone Parade	Local
843322	Airman's Park	LINDFIELD	southern end of Bradfield Road opposite nos.147-153	Local
843316	Queen Elizabeth Reserve	LINDFIELD	Bradfield Road corner Charles Street	District
843861	Queen Elizabeth Reserve - Tennis Courts	LINDFIELD	between Bradfield Road and opposite 25-29 Edmund Street	District
843652	Carlyle Road Reserve	LINDFIELD EAST	between 48 & 52 Carlyle Road	Local
843178	Dukes Green	LINDFIELD EAST	11 Wellington Road (East Lindfield Shops)	Local

Ledger no.	PLAYGROUND	SUBURB	LOCATION	CLASSIFICATION
843187	Follies Park	LINDFIELD EAST	next to no.11 Canberra Crescent	Local
843179	Pleasant Avenue Reserve	LINDFIELD EAST	1A Pleasant Avenue	Local
843073	Bannockburn Oval	PYMBLE	cnr. Bannockburn Road and Birubi Avenue	Local
843784	Kendall Green	PYMBLE	27 Kendall Street	Local
843080	Robert Pymble Park	PYMBLE	between Park Crescent and Alma Street	District
843130	Yarrawonga Reserve	PYMBLE	no.3 Yarrawonga Close	Local
843208	Bancroft Park	ROSEVILLE	between nos.43 and 47 Bancroft Avenue	Local
800600	East Roseville Community Centre	ROSEVILLE	cnr. Park Ave & Babbage Rd	Local
843333	Loyal Henry Park (West Roseville Park)	ROSEVILLE	next to no.45 Thomas Avenue south to next to no.48 Bromborough Road west to behind Abingdon Road	Local
843871	Roseville Park	ROSEVILLE	between 60 Clanville Road and Cranbrook Avenue	District
843198	Echo Point Park	ROSEVILLE CHASE	Middle Harbour foreshore opposite no 80 Babbage Road	Local
000711	Babbage Park	ROSEVILLE CHASE	Cnr Malga Ave and Babbage Rd	Local

Ledger no.	PLAYGROUND	SUBURB	LOCATION	CLASSIFICATION
843255	Balmaringa Reserve	SOUTH TURRAMURRA	corner Balmaringa Avenue and Auluba Road	Local
843263	City View Park (East End)	SOUTH TURRAMURRA	adjacent to no's 15 and 17 Geoffrey Street	Local
843245	Hicks Avenue Reserve	SOUTH TURRAMURRA	Corner Hicks and Parkinson Avenues	Local
843259	Kissing Point Village Green	SOUTH TURRAMURRA	cnr. Vernon Street and Kissing Point Road	District
843090	Athena Avenue Reserve	ST IVES	opposite no.30 Athena Avenue cnr. Hayle Street	Local
843134	Barra Brui Playing Field	ST IVES	entrance through no.2A Burraneer Avenue opposite no.2	Local
843086	Blackburn Reserve	ST IVES	cnr. Blackburn Street and Acron Road	Local
843021	Green Valley Reserve	ST IVES	no.20 Greenvalley Avenue	Local
843025	Hassall Park	ST IVES	no.352 Mona Vale Road between Mawson and Palm Streets	District
843022	Ku-ring-gai Wildflower Garden	ST IVES	no.420 Mona Vale Road	Regional
843115	Melaleuca Drive Park	ST IVES	between nos.39-47 Melaleuca Drive	Local
843030	Memorial Avenue Reserve	ST IVES	no.59 Memorial Avenue	Local

Ledger no.	PLAYGROUND	SUBURB	LOCATION	CLASSIFICATION
843107	Putarri Avenue Reserve	ST IVES	cnr. Putarri Avenue and Rosedale Road	Local
843024	St Ives Showground. Playground # 6	ST IVES	no.450 Mona Vale Road	Regional
843024	St Ives Showground. Playground # 4	ST IVES	no.450 Mona Vale Road	Regional
843024	St Ives Showground. Playground # 7	ST IVES	no.450 Mona Vale Road	Regional
843120	The Mall Reserve	ST IVES	158 Warrimoo Avenue adj. Shops	Local
843031	St Ives Village Green	ST IVES	Playground near skatepark at St Ives Village Green	District
843091	Willis Avenue Reserve	ST IVES	no.14 Willis Avenue	Local
843113	Yarrabung Reserve	ST IVES	no.59B Yarrabung Road	Local
000709	Lapwing Reserve	ST IVES	14-18 Carcoola Rd	Local
843019	Warrimoo Oval	ST IVES CHASE	north of no.157 Warrimoo Avenue to opposite Gould Avenue east to behind nos.39-43 Dalton Road	Local
843039	Kent Playing Field	TURRAMURRA	south end of Kent Road and west end of Chester Road	Local
843044	Cameron Park	TURRAMURRA	cnr. Eastern Road and Gilroy Road	Local

Ledger no.	PLAYGROUND	SUBURB	LOCATION	CLASSIFICATION
8430254	Comenarra Playing Field	TURRAMURRA	opposite end Forwood Avenue Comenarra Parkway adjacent no.61	Local
843230	Duff Street Park	TURRAMURRA	Corner Duff and Cornwall Avenue	Local
TBC	Allan Ave Reserve	TURRAMURRA	Duff Street, Allan Ave and Holmes Street	Local
843247	Hamilton Park	TURRAMURRA	no.82 Kissing Point Road and between Boronia Avenue and Barellan Avenue	Local
843237	Howson Oval	TURRAMURRA	oval adjacent to no.39 Howson Avenue	Local
843040	Irish Town Grove	TURRAMURRA	opposite no.19 Adams Avenue south-west to cnr. Princes Lane/ Bannockburn Rd	Local
843251	Rofe Park/ Mimosa Oval	TURRAMURRA	no.40 Mimosa Road	Local
843042	Turramurra Memorial Park	TURRAMURRA	cnr Karuah Road and Eastern Road	District
843246	Yeramba Street Reserve	TURRAMURRA	cnr. Yeramba Street and Acacia Close	Local
843282	Applegum Way	WEST PYMBLE	next to no.11 Hillary Street through to next to no.12 Jugiong Street	Local
843298	Bandalong Reserve	WEST PYMBLE	corner Bandalong and Bolwarra Ave	Local
843289	Peewee Park	WEST PYMBLE	no.37 Kiparra Street opp. Dunoon Ave	Local

Ledger no.	PLAYGROUND	SUBURB	LOCATION	CLASSIFICATION
843288	Ku-ring-gai Bicentennial Park	WEST PYMBLE	End of Prince of Wales Drive.	Regional
843285	Bicentennial Park Lofberg Playground	WEST PYMBLE	cnr. Lofberg Road and Shaddock Avenue to opposite Grayling Road	Regional
843291	Boronga Avenue Reserve	WEST PYMBLE	Boronga Avenue opposite no.11-17	Local
843294	Claire Taylor Park	WEST PYMBLE	end of Camira Street	Local
843266	Frogmore Park	WEST PYMBLE	No.35 Wyomee Avenue to Warrowa Place	Local
843279	Phillip Mall	WEST PYMBLE	End Phillip Mall, at West Pymble shops	Local
843265	Ramsay Avenue Reserve	WEST PYMBLE	Ramsay Avenue opposite end Evans St	Local
843281	Sequoia Close Park	WEST PYMBLE	No.4 Sequoia Close	local

4. principles for planning play spaces in parks



Parks for play - some fundamental planning principles and assumptions

This report is based on information, research, observations, experience, benchmarks and common practice sourced from Local Government Areas all over Australia. Some of the fundamental ideas that underlie the report and its recommendations are outlined below. This section also contains important definitions that have been used in this report.

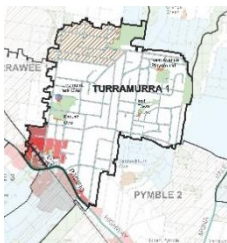
The role of play in the healthy development of children

Play in its many forms is significant in the healthy development of children and young people. The location, planning and design of parks have a significant effect on how they will be used. Parks and play spaces play a vital role in encouraging children and families and other community members to play out of doors and thus make a considerable contribution to community health and well-being.

Play provision as a system

Planning and designing places for play should not be seen as a one-off matter to be resolved on a single, park-by-park basis. Rather, each park and play space contributes to an overall 'package' available to the public across their residential precinct. These must be viewed as an overall system, with each individual park contributing to the diverse whole, and each complementing the other.

Definition of residential Suburbs and Precincts



Suburbs are the basic planning unit which have been used in this report to map and plan play provision across the LGA. Suburbs are residential areas contained by any physical or social boundaries or barriers such as busy roads, railway lines or water bodies that might affect the easy independent movement of children on foot or bike.

The Suburbs are based largely on boundaries for administrative purposes. In this report, the Suburbs have been further divided into Precincts, where busy roads or other barriers define smaller areas within the larger Suburb. The adjacent map shows a large precinct within the suburb of Turramurra.

Refer to **Map 1** showing all Ku-ring-gai Council suburbs and play spaces

Walking distance
to parks from
residential areas

All residents should ideally have access to a park (of any category) within an approximate 10-minute walk³, or approximately 400m.

The distance must be measured by approximate actual walking routes (not by the radius of circles drawn on a plan) and should not cross a busy road or railway line, unless there is a signalized safe crossing or bridge.

Where these distances are impractical, the *quality* and *diversity* of those play opportunities that do exist becomes more significant. Where residents only have limited options for access to parks or play spaces, those that are accessible need to be of a higher quality to make up for limits in choice.

Dependence

In some cases, a larger than usual population may depend upon just one park to meet all of their local play and recreation needs. Such parks are classified as 'high dependence' and will require higher quality provision than might otherwise be expected of a similar sized park elsewhere.

Refer to **Map 3**.

'Higher quality' might in such cases mean catering for a broader range of age groups; of activity types, and a higher level of accessibility than would otherwise be the case if there were more parks to choose from.

Access and
inclusion for users
with a disability

Clearly there are many kinds of disability; each has its own implication for design. Numerically there are far more people identifying with intellectual disability than any other disability.

When the words *access* or *inclusion* are used in this context in this report, these terms are frequently aimed at providing inclusive physical access to parks, play opportunities and social spaces (such as a path and/or an accessible soft fall surface linking to the equipment). These will benefit not only users with mobility aids and especially wheelchairs but help define spaces and provide orientation for users with a vision impairment and/or intellectual disability, as well as catering for Ku-ring-gai's larger than usual older population who are also often grandparents.

Refer to the **Everyone Can Play Guidelines** to create inclusive play spaces prepared by the Office of Open Space and Parklands, NSW Department of Planning and Environment 2019

<https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/everyone-can-play-guideline-2019-02-20.pdf>

Off-road
connections/ links

It is not intended that any park should be expected to (on its own) meet the needs of every resident. It is therefore assumed that residents will have some choices as to where they play, so they can select the setting that suits their needs best within their residential precinct. This also assumes that people will be able to move around their neighbourhood between a choice of parks and play spaces.

It is therefore vital that there are **safe routes** for children to move around their neighbourhoods and between parks as they get older, via pedestrian and bike routes (preferably off road). Such routes are therefore an important factor in the assessment of the value and catchment of play spaces. This is a problem in many parts of Ku-ring-gai where there are no footpaths.

Diversity for play
within precincts
and parks

Diversity is a fundamentally important concept in the provision of places for play and recreation.

A diverse 'package' of play opportunities needs to be available within any one suburb or precinct (such as the parks, open spaces, play equipment, bushland, plazas, rivers or creeks, pedestrian zones and any other public spaces where children might play). This is critical in planning, design and management for play.

When a precinct contains more than one park or play space, the provision for play should be different in each park within that precinct so that children and families have access to a diverse range of play settings.

As some children and families will not have opportunities to move far afield, within each park there also needs to be some choice of opportunities and settings. The design of individual parks and parcels of open space needs to take this into account where size permits.

Classification of
parks

All parks for play and social/ family recreation are typically classified according to their position in a hierarchy. The classification serves a number of functions, one of which is to determine benchmarks for design and for management and levels of service. The classification also establishes the likely catchment from which users will be drawn, and the role of the park within the parks system.

Refer to the more detailed discussion below.

classification of parks for play

Introduction to Tables 2 and 3 overleaf

As mentioned previously, play spaces in parks are part of a *system* of open space provision.

Parks are typically classified into a **hierarchy** for planning and management purposes. The three levels of classification are used for parks for the purpose of play and social/family recreation in Ku-ring-gai's settings:

- Local
- District
- Regional

These are described overleaf.

Table 1 listed all the play spaces and shows the classification of each.

Refer to **Table 2** overleaf for the basic classification and description of parks for play in the hierarchy. Benchmarks for planning, design and management can be attributed to various classifications in the parks hierarchy. Refer to **Table 3**.

The purpose of this classification system is that it can form the basis of a design brief and can be used to manage community expectations regarding what will or will not typically be provided in play spaces. It also assists the determination of carrying capacity and thus related resourcing and service levels for maintenance. Refer also to **Map 1** showing the classification of play spaces across Ku-ring-gai, according to this hierarchy.

TABLE 2. Classification and description of different types of play spaces in the hierarchy; purpose and distribution

	LOCAL PLAY SPACES	DISTRICT PLAY SPACES	REGIONAL PLAY SPACES
Definition and Significance	The basic and possibly most important unit or building blocks of the open space and play space system. Serve homes generally within walking distance. Unlikely to attract users from much further afield unless located on a trail or adjacent to a school.	Serve a whole residential precinct. They are typically larger and more prominent than the local play space, with a distribution similar to local primary schools.	These are destination play spaces that provide play experiences for people from outside their immediate residential areas including visitors from outside the LGA. May also be located near another major destination such as a national park or major sports facility.
Role and Function	Primary purpose is for play & social/ family recreation. Important for children old enough to walk or cycle to play spaces independently. Help make up for a lack of private space. Important meeting places for local families, children and teenagers. Visits are likely to be of short duration.	Primary purpose is for play and social/family recreation & team groups. Visits are often connected to another attraction i.e. to shops, school, kinder, sports etc. and for meeting socially. The role as a community meeting place is a key feature. Visits will be of longer duration than local parks.	Provide special play experiences unlikely to be available in Local or District spaces. Provide for family outings to destination areas. Visits are likely to be of moderate or extended duration.
Distribution and Catchment	Residents should ideally have access to a park within approx. 10 min. walk or up to 400m whichever is the lesser distance. This should be measured by actual walking routes (not by the radius of circles drawn on a plan). Ideally users should not need to cross a busy road to reach a park from home, though this is not always possible in the inner city.	Residents should have access to a District park ideally within their suburb. Frequently located near a node such as a shopping centre, school or community centre, or a sports facility. Serve users living relatively close by. Travel by foot or bike as well as by car.	Attract visitors from across suburb boundaries and further afield by public transport, car, bike or on foot. Public Transport is important.

NB – this includes a sub-classification for Local play spaces in town/local centres. Due to their significance in a high density/high dependency context, their benchmarks are more aligned with a district park classification, despite being smaller in physical area”

TABLE 3. Benchmarks for Assets and Amenities in Play Spaces, by Classification
For new and upgraded parks that are provided for play and social family recreation.

	LOCAL PLAY SPACES	DISTRICT PLAY SPACES	REGIONAL PLAY SPACES
Car Parking	Not required.	Desirable, including accessible spaces.	Required; including accessible spaces.
Access and Inclusion for people with disabilities	Within every local precinct, people with a disability must be able to access a choice of play and social opportunities in parks. Parks with a high level of dependence require higher levels of accessibility even at the local (and most important) level.	District parks are expected to provide a higher level of access and inclusion to play and social features than local parks. Parks with a high level of dependence require higher levels of access including to a choice of play opportunities.	Regional parks are expected to provide a very high level of access and inclusion to features including to a wide choice of play activities, picnic settings and furniture, and natural areas. Accessible parking required as these spaces are used for events and community celebrations.
Path System	Wheelchair accessible path is desirable linking shade/seating/play facilities to footpaths.	A seamless, wheelchair accessible path system is required linking a good choice of social areas and key play areas to surrounding foot paths, car parks etc.	
Synthetic Softfall	Not required – confirmed on a site by site basis	Negotiable – confirmed on a site by site basis	Negotiable – confirmed on a site by site basis
Seats and Tables	Required.	Required. Configuration of furniture needs to encourage and facilitate social interaction	A choice of accessible seating styles and picnic furniture required.
Shade /shelter	Tree shade required over seating and play area/s. Built shade infrastructure on an as needs basis	Built shelter negotiable; Tree shade required for seating and play area.	Built shelter/s required as well as tree shade, if tree shade is not effective in summer.
Drinking water	Preferred.	Required. Accessible model located on an accessible route.	
Rubbish bins	Not required.	Required.	Required.
BBQ's	Not required.	Negotiable.	Required, subject to bushfire and heritage classification. Accessible model on accessible route. Cont./...

	LOCAL PLAY SPACES	DISTRICT PLAY SPACES	REGIONAL PLAY SPACES
Toilets	Not required.	Negotiable; must be accessible if provided. Ideally shared with other facilities.	Accessible toilets required, including toilets for families and ambulant disabled people.
Lighting	Not required.	Negotiable – confirmed on a site by site basis.	Required.
Bike Racks	Desirable.	Required.	Required.
Signs	Ordinance Name and rules	Ordinance Name and rules	Ordinance Name and rules
Fences	Negotiable depending upon the site.	Negotiable; a choice of fenced sites in each suburb desirable.	A choice of fenced sites across the LGA is desirable.
Maintenance /emergency vehicle access	Confirmed on a site by site basis	Confirmed on a site by site basis	Confirmed on a site by site basis

5. demand and supply overview



introducing supply and demand issues

Play spaces should not all be the same. They are a purpose-provided setting for play, recreation and social interaction that should ideally respond to the needs of the local community, to the local context, and to the local physical and cultural environment, which will differ from location to location. However, maintenance and asset management does require some standardisation for economies of scale, work practices and efficiencies.

The purpose of this section is to provide a context and background for individual, site - by-site and suburb-by-suburb planning and design decisions. These decisions cannot be made in isolation, nor in an ad-hoc manner.

In order to ultimately make the required recommendations and decisions about priorities for play space provision in Ku-ring-gai, a demand and supply analysis is required.

This section establishes the relationship between:

- the location and distribution (supply) of parks and play spaces, and
- the communities that use them, (demand)
- as summarised by demographic and other sources of information.

This information can continue to be updated as new census data becomes available.

This section includes maps and analysis that provide an overview that are used in the play space assessments. This information provides the background context that feeds into the suburb reports and site by site recommendations.

The individual reports on each site by suburb are included in Volume 2 of this report.

supply – the distribution of parks for play in Ku-ring-gai

Walking distance and the supply of parks for play

It is a basic premise of this report that wherever possible, residents within Ku-ring-gai should have access to a park or play space within walking distance (up to approximately 400 meters) from home. This is not always achievable but is the ideal. This is consistent with Council's 2006 Open Space Acquisition Strategy.

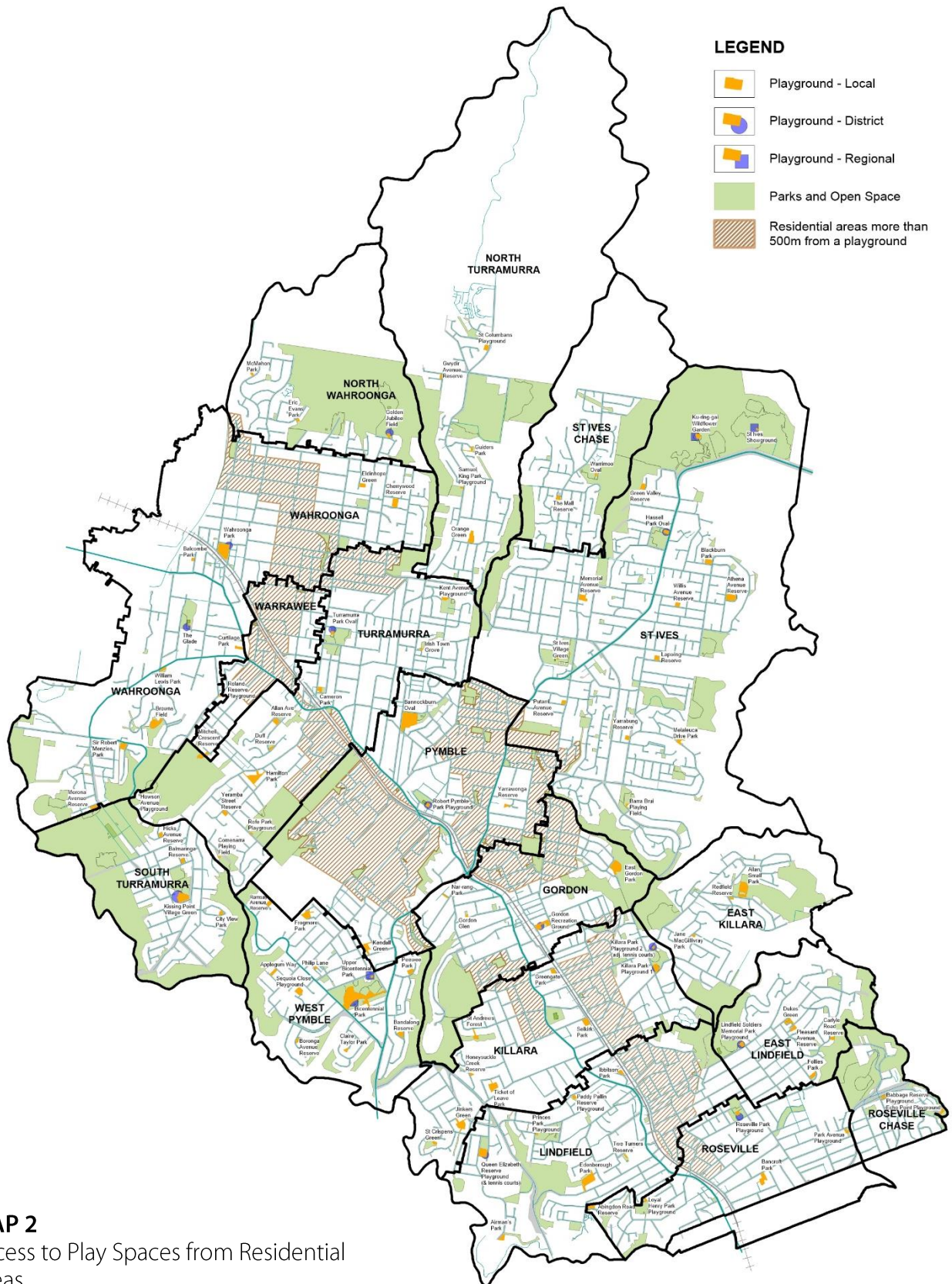
Map 1 shows the current distribution of play spaces in Ku-ring-gai. It shows:

- the boundaries of each Ku-ring-gai Suburb,
- the location of the purpose-provided play spaces, by Suburb
- the classification of each play space.

Map 2 (Accessibility of Play Spaces from Residential Areas) analyses the play space precincts, showing the distribution of play spaces and indicating residential areas that are more than approximately 500m from a play space or park.

It is important to note that the distance of 4-500m needs to be measured reasonably accurately, taking into account:

- the actual walking distance due to the subdivision design and layout of streets
- barriers which children cannot be expected to cross in order to reach a park for play.

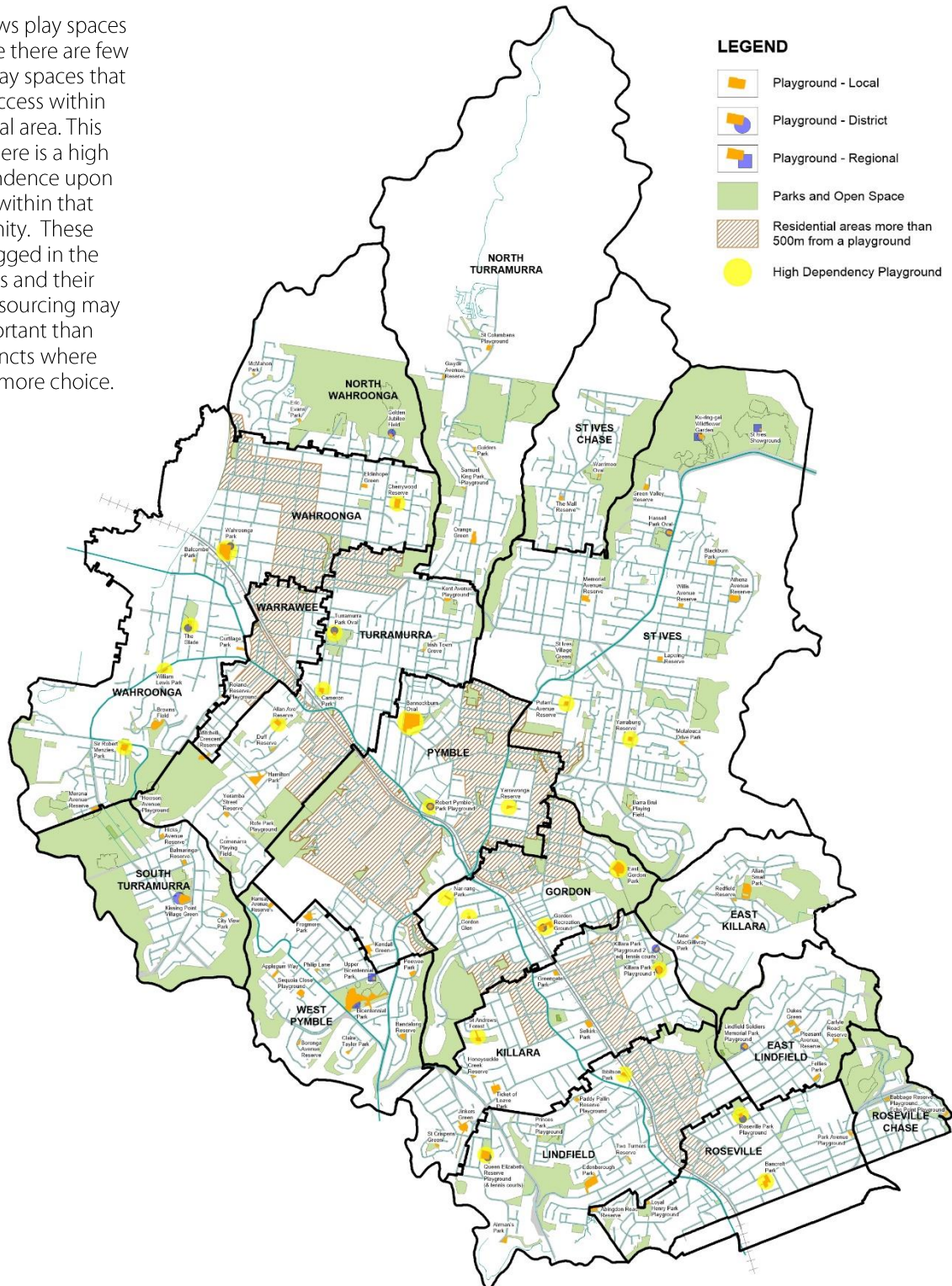


MAP 2

Access to Play Spaces from Residential Areas

Shows residential areas that do not have access to play spaces within approx. 500m

This map shows play spaces in areas where there are few or no other play spaces that families can access within their residential area. This means that there is a high level of dependence upon these spaces within that local community. These spaces are flagged in the suburb reports and their design and resourcing may be more important than those in precincts where families have more choice.

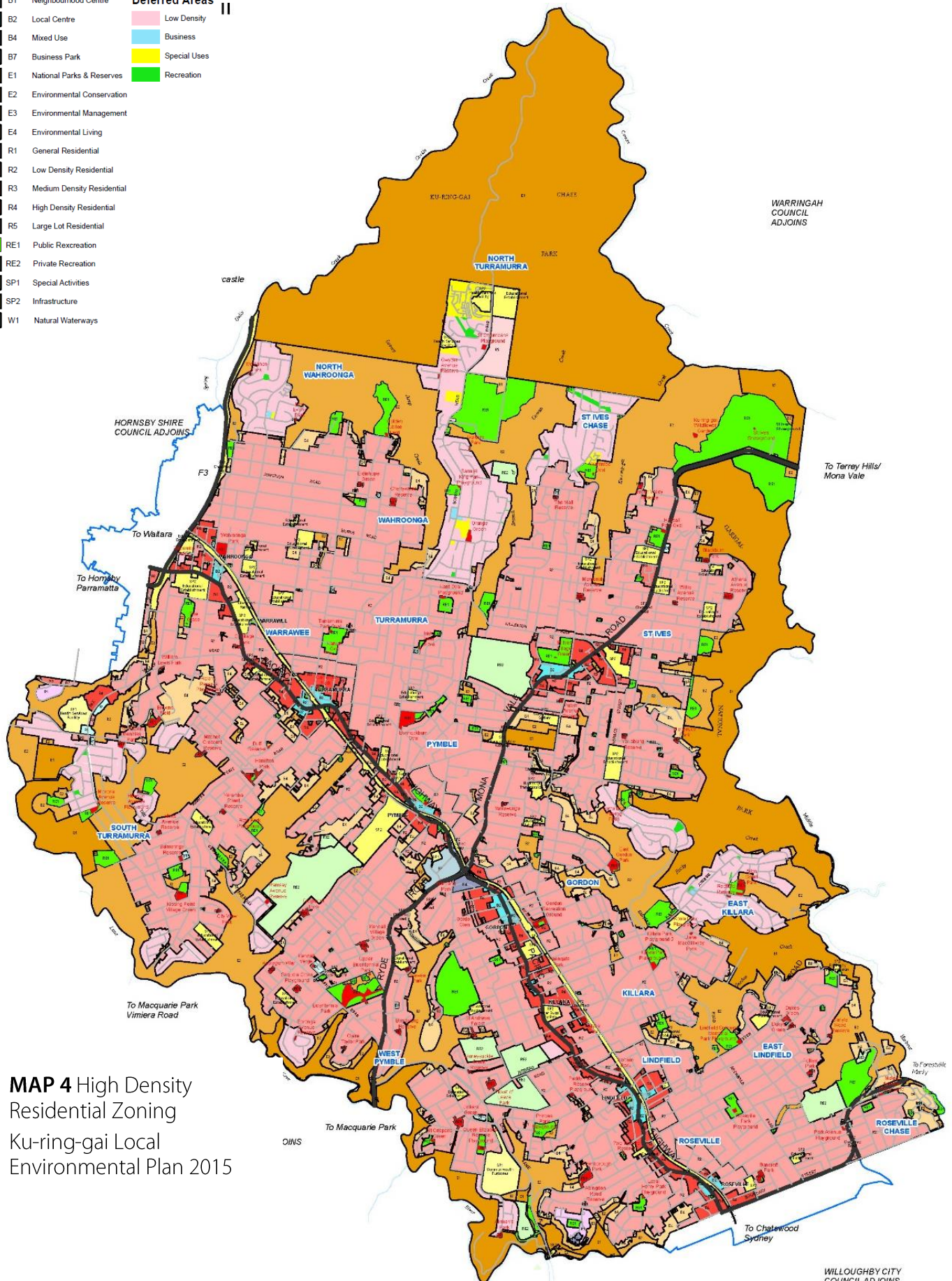


MAP 3

'High Dependence'
Play Spaces

Zoning

B1	Neighbourhood Centre	Deferred Areas	Low Density
B2	Local Centre	Business	
B4	Mixed Use	Special Uses	
B7	Business Park	Recreation	
E1	National Parks & Reserves		
E2	Environmental Conservation		
E3	Environmental Management		
E4	Environmental Living		
R1	General Residential		
R2	Low Density Residential		
R3	Medium Density Residential		
R4	High Density Residential		
R5	Large Lot Residential		
RE1	Public Recreation		
RE2	Private Recreation		
SP1	Special Activities		
SP2	Infrastructure		
W1	Natural Waterways		



demographic analysis and the demand for play opportunities in Ku-ring-gai

Significant social indicators

Some particular demographic characteristics affect the demand for, value, and use of play spaces. The key factors that are of significance are:

- the number and percentage of children as a proportion of the population, by suburb
- the age profile of the population and family composition
- the degree of social disadvantage
- the density of housing
- the number and proportion of children with a disability (needing assistance)
- cultural diversity

These factors are explained below.

Note: other factors need to be considered when planning a network of parks and play spaces other than demographic influences. Demographics change over time, usually quicker than new parks or play spaces can be provided. The discussion below is purely about the demand for play spaces.

Data sources

Demographic data cited below for Ku-ring-gai is based on the 2016 census and was obtained from the .id Community Profile and the data prepared on Communities of Interest by .id. Additional information from DPIE (Department of Planning, Industry and Environment) has also been included.

The number and percentage of children in the population

The majority of users of a play space will be children. The majority will be under 12 years of age. The number of children overall and in a particular suburb, and their age profile influences the demand for play spaces near where children live, the age appropriateness of specific opportunities and the capacity of play spaces to serve many people. Family composition – such as the number of parents may also influence opportunities available to children.

Play spaces, parks, open space and other outdoor recreation opportunities are particularly significant to the healthy social, physical, mental development of children. It is therefore valuable to note where populations of children in various age cohorts are concentrated and are changing. These demographics become especially interesting when the number of children living in high-density increases, and or in areas lacking in open space and play provision.

Even though play space provision should ideally be equitable across the whole municipality, areas with large numbers of children should be a priority area when addressing gaps in parks, open space, and play opportunities.

Demand for open space and parkland will increase as the population and housing densities continue to grow.

The next section discusses the implications of demographic data (housing and the population of children) for play provision in Ku-ring-gai.

Social disadvantage

Families who experience social disadvantage have been shown to have poorer health and lower levels of participation in physical activity and recreation activities. They may also have fewer opportunities to travel to alternative play, social and recreation opportunities further away, and there is, therefore, a higher level of dependence on locally provided play areas. Families experiencing social disadvantage need no- cost or low-cost options to play outdoors, close to home.

Play spaces are also assumed to be significant in populations experiencing social disadvantage because of their benefits as an affordable place to socialise away from home and the role of play, creativity, early childhood development and social/community development in determining children's future outcomes.

Because overall the Ku-ring-gai LGA has very low levels of social disadvantage (the lowest in NSW according to the 2016 census data and SEIFA index⁷) this factor is not a major consideration in this study. However, while the Ku-ring-gai population as a whole may not be disadvantaged, there will be families who experience disadvantage due to housing stress, family composition (number of parents) and family member's age, health status and disability, that also affect family income, and potentially education and development. Also, id ⁸estimates that 95 homeless people are living in Ku-ring-gai.

While a lower proportion of children in Ku-ring-gai are likely to have a disability than the Greater Sydney population, the income data suggests those families with a disability are likely to have fewer resources than other families. These families are also likely to have higher demands on their time, greater need for enhancing development opportunities for children with a disability and more significant challenges in transport and accessing typical play facilities. For these reasons, access to play facilities locally that are inclusive, and provide sensory, social and play opportunities (ie those other than physical challenge), is a high priority in local parks, and not only those spaces that families need to get to by car.

How housing density affects play

In areas of medium and higher density housing it is assumed that residents have:

- fewer (or no) private/backyard /outdoor opportunities for outdoor play and therefore a greater need to use public outdoor spaces for health and wellbeing
- opportunities for certain kinds of games and activities which typically have taken place in backyards.

Housing density affects play space provision because public parks may need to accommodate activities that often take place in back yards, such as gardening, digging, sand play, bike riding, ball games, tree climbing and cubby building.

Access to nature; opportunities to obtain respite from hard urban spaces; or to engage with natural materials, plants, sand, soil or wildlife also become increasingly important, for both children and adults as urban density increases.

The NSW Apartment Design Guide⁹ indicates that all apartments are required to have a balcony of a minimum of 4m² or a ground floor space of a minimum of 15m²; that balconies should be designed to be safe outdoor spaces for children and provide the opportunity for pet ownership. There is also a requirement for communal open spaces and common spaces to be provided for a range of age groups, incorporating some of the following elements:

- play equipment or play areas
- seating for individuals or groups

⁸ .id community, Ku-ring-gai Council area community profile, demographic resource 2016

⁹ Tools for improving the design of residential apartment development. NSW Department of Planning and Environment July 2015

- barbecue areas, and
- swimming pools, gyms, tennis courts or common rooms

Under these guidelines, communal open space has a minimum area equal to 25% of the site and have a minimum dimension of 3m and should be co-located with deep soil areas.

Children in Ku-ring-gai

In 2016 there were 18,229 children between 0-11 years (those most likely to use play spaces) living in the Ku-ring-gai, accounting for 15.4% of the population. This proportion is slightly higher than the Greater Sydney average of 15.2%.¹⁰.

0-11 year olds



Approximately 18,230 0-11 year olds were living in Ku-ring-gai in 2016

Population forecast



Forecasts show an additional 2,349 0-11 year olds by 2038

Dwelling type



One in five 0-4 year olds lived in high-density dwellings in 2016

Snapshot

There were 18,229 0-11-year olds in Ku-ring-gai in 2016. This age group represents 15.4% of the population (slightly more than the Greater Sydney average of 15.2%). Of these, 6,028 are 0-4-year olds (5.1%), and 12,201 (10.3%) are 5-11-year olds.

In comparison with Greater Sydney, Ku-ring-gai has a higher proportion of 10- 14-year olds, 5-9-year olds and 5-11-year olds and a lower proportion of 0-5-year olds.

The suburbs with the highest proportion of 5-11-year olds in 2016 were:

- South Turramurra (12.5%)
- East Lindfield (11.9%) and
- Roseville - Roseville Chase 11.5%)

The suburbs with the highest proportion of 0-4-year olds in 2016 were:

- St Ives and West Pymble (5.9%)
- South Turramurra (5.7%) and
- Lindfield (5.6%)

One in five 0-4-year olds live in high-density housing. This proportion is higher than the Greater Sydney average of 17.8%.

Over 90% of children in Ku-ring-gai live in two-parent families. This proportion is higher than the Greater Sydney rate of 81.9%.

Ku-ring-gai has one of the highest rates of Independent primary school attendance in Greater Sydney, 23% compared to the Greater Sydney average of 11.8%.

.id forecasts an additional 2,349 0-11-year olds in Ku-ring-gai by 2038. However, children's share of the total population is projected to decline to 14.3%.

Population forecasts

DPIE forecasts an additional 2,750 0-9 year olds in Ku-ring-gai by 2036. However, 0-9 year olds share of the total population is projected to decline from 12.5% to 11.8%

Table 4 Number and proportion of 0-11-year olds, 2016 and 2036

Age Group	2016			2036			Change 2016-2036	
	No.	%	Metropolitan Sydney %	No.	%	Metropolitan Sydney %	No.	%
0-4 years	6,750	5.47%	6.95%	7,750	5.01%	6.40%	+1,000	+14.8%
5-9 years	8,700	7.05%	6.28%	10,450	6.76%	6.16%	+1,750	+20.1%
10-14 years	9,650	7.82%	5.78%	12,050	7.80%	6.03%	+2,400	+24.9%
total 0-9 years	15,450	12.52%	13.23%	18,200	11.78%	12.56%	+2,750	+17.8%
total 0-14 years	25,100	20.33%	19.01%	30,250	19.57%	18.59%	+5,150	+20.5%

Source: Department of Planning, Industry and Environment – NSW Population Projections Data (2016)

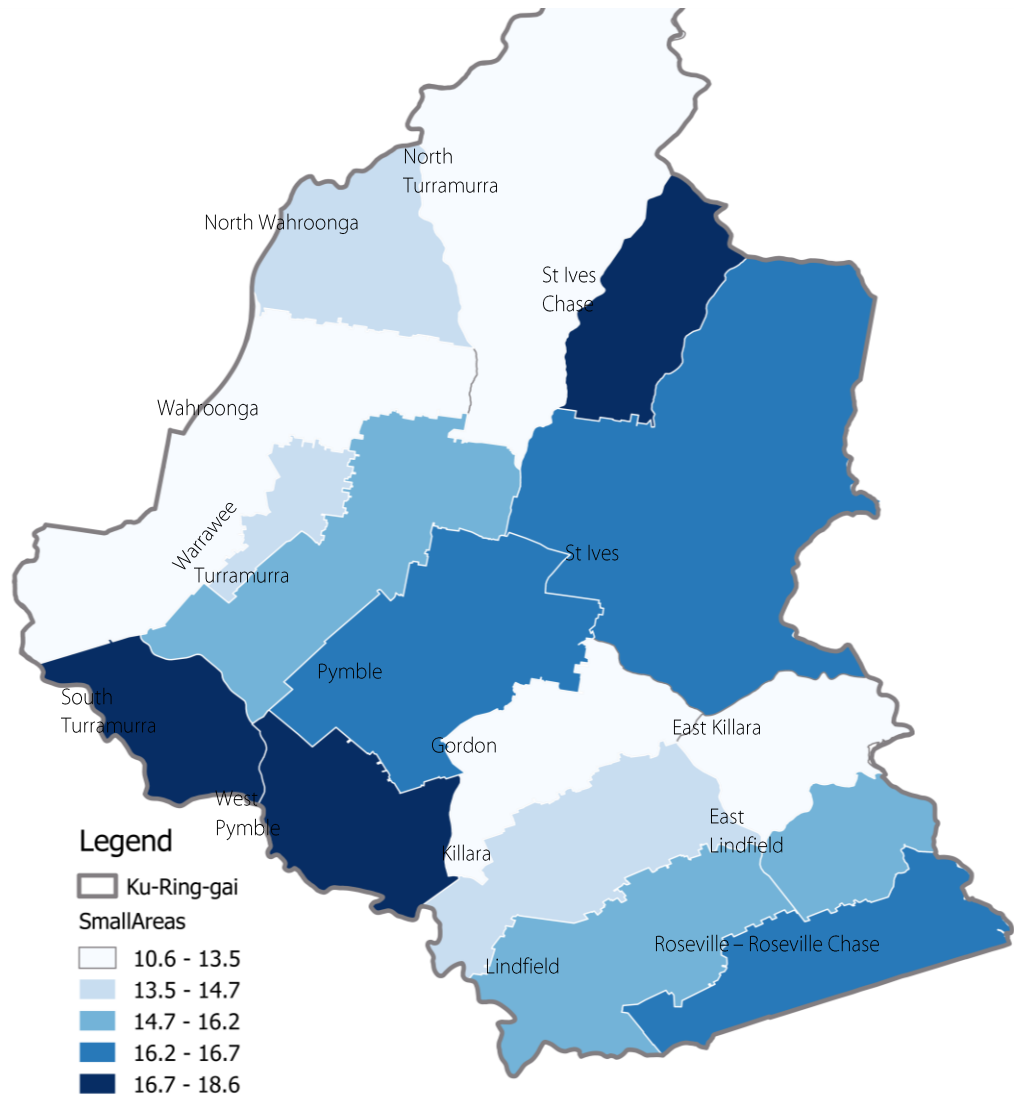
Distribution of children in Kur-ring-gai

The map and table below shows the spatial distribution of 0-11-year olds across Ku-ring-gai by small area, in 2016. The suburbs with a high number and per cent of children in the population (0-11yrs) are St Ives, Turramurra and Pymble. Wahroonga and Lindfield also have a large number of children. The suburbs with the highest proportion of children (0-11years) also include West Pymble, South Turramurra and Roseville - Roseville Chase and St Ives Chase.

Table 5. The proportion of 0-11-year olds by small area, 2016

Suburb	Number	% of total population
St Ives	2844	16.4%
Turramurra	1932	16.1%
Pymble	1782	16.4%
Wahroonga	1741	13.5%
Lindfield	1592	16.1%
Killara	1524	14.2%
Roseville - Roseville Chase	1517	16.7%
Gordon	1010	13.4%
West Pymble	985	18.6%
East Lindfield	599	16.2%
South Turramurra	564	18.2%
St Ives Chase	524	16.8%
North Turramurra	450	10.6%
Warrawee	408	13.6%
East Killara	400	13.4%
North Wahroonga	291	14.6%

Source: ABS Census of Population and Housing, 2016



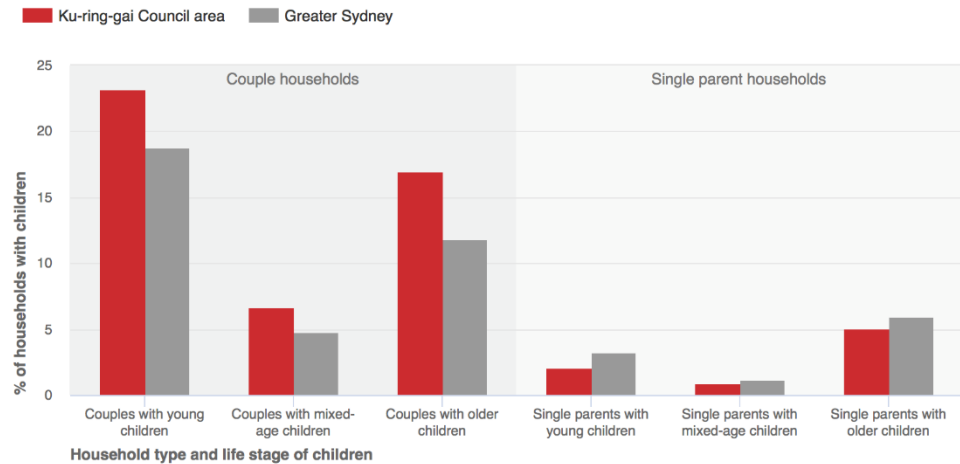
Source: ABS Census of Population and Housing, 2016

Figure 1 Proportion (%) of 0-11-year olds by small area, 2016

Households with children

The proportion of couple *households* with children in Ku-ring-gai (46%) is significantly higher than for Greater Sydney (35%) for both pre-school ages (0-4 years) and school-aged children (5-9-year olds). See graph following.

Households with children, 2016



Source: Australian Bureau of Statistics, Census of Population and Housing, 2016 (Enumerated data). Compiled and presented in profile.id by .id, the population experts.

Figure 2 Households with Children 2016

Family composition

The majority (90.3%) of children aged 0-11 years in Ku-ring-gai live in two-parent families. This proportion is significantly higher than the Greater Sydney average, where 81.9% of children live in two-parent families.

However, as children in Ku-ring-gai age, they are more likely to live in one parent families. Just 4.5% of 0-4-year olds live in one parent families, but 6.4% of 5-11-year olds live in this type of household.

Housing density in Ku-ring-gai - a snapshot

Generally, children in Ku-ring-gai live in separate houses. A higher proportion of children in Ku-ring-gai live in separate dwellings than for Greater Sydney as a whole. However, in 2016 approximately 20% of 0-4 year olds were living in high-density houses – (buildings of 3 storeys or more), compared to 5-11 year olds (9.2%).

Interestingly, the proportion of children aged 0-4 years who live in high-density housing is slightly more than for Greater Sydney as a whole, whereas the percentage of 5-11 years living in medium to high density in Ku-ring-gai is less than for Greater Sydney as a whole.

The number and increasing proportion of very young children living in high density housing has implications for play space provision. These are discussed in the sections below.

Examination of the 2016 census data shows a clear pattern of higher density dwellings situated especially along and between the main transport corridors through Ku-ring-gai (both road and railway) being:

- the Sydney / North Shore railway line
- the Pacific Highway
- Mona Vale Road to the northeast, and
- Ryde Road to the southwest (to a lesser extent).

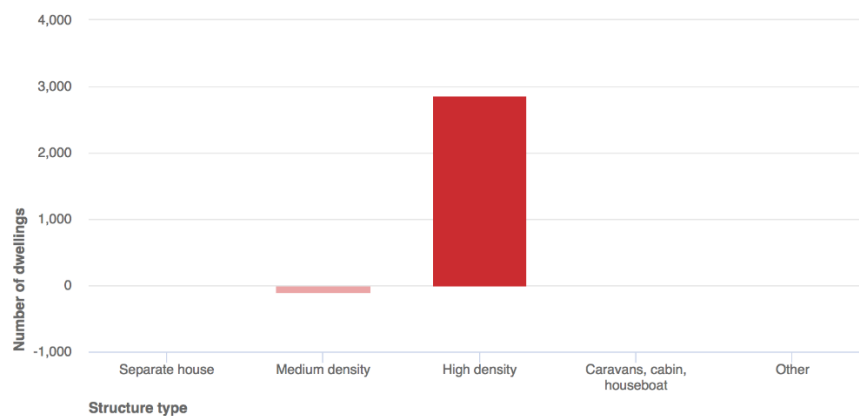
This pattern of increasing density is likely to increase the demand for, and use of, open space, which is already in short or undersupply in many of these areas. It is also a pattern that is rapidly changing as the population grows rapidly.

Changes in Ku-ring-gai Housing Density

Perhaps most significant change since 2011 in the *type of dwellings* in Ku-ring-gai LGA was the percentage increase in the high-density dwellings (+6% across the Council area) and the decrease in the proportion of separate houses (<-5%) and medium density dwellings (<1%). This pattern is illustrated in following Figure 3.

Change in dwelling structure, 2011 to 2016

Ku-ring-gai Council area



Source: Australian Bureau of Statistics, Census of Population and Housing, 2011 and 2016 (Enumerated data). Compiled and presented in profile.id by .id, the population experts.

.id
the population experts

Figure 3 Change in dwelling structure 2011 to 2016

Location of high-density housing in Ku-ring-gai LGA 2016

Suburbs with the highest proportion of high-density dwellings in 2016 were Killara, Lindfield and Gordon, Warrawee and Roseville and Roseville Chase. The suburbs with the highest density have only changed slightly since 2011, when Killara, Lindfield, Warrawee, Gordon and Wahroonga had a higher percentage of high-density dwellings. In both years Killara and Lindfield had the largest numbers of high-density dwellings. The following figure shows the percentage of high-density dwellings by suburb and compared to adjacent Councils, NSW and Australia.

Source: ABS Census of Population and Housing, 2016

Ku-ring-gai Council area

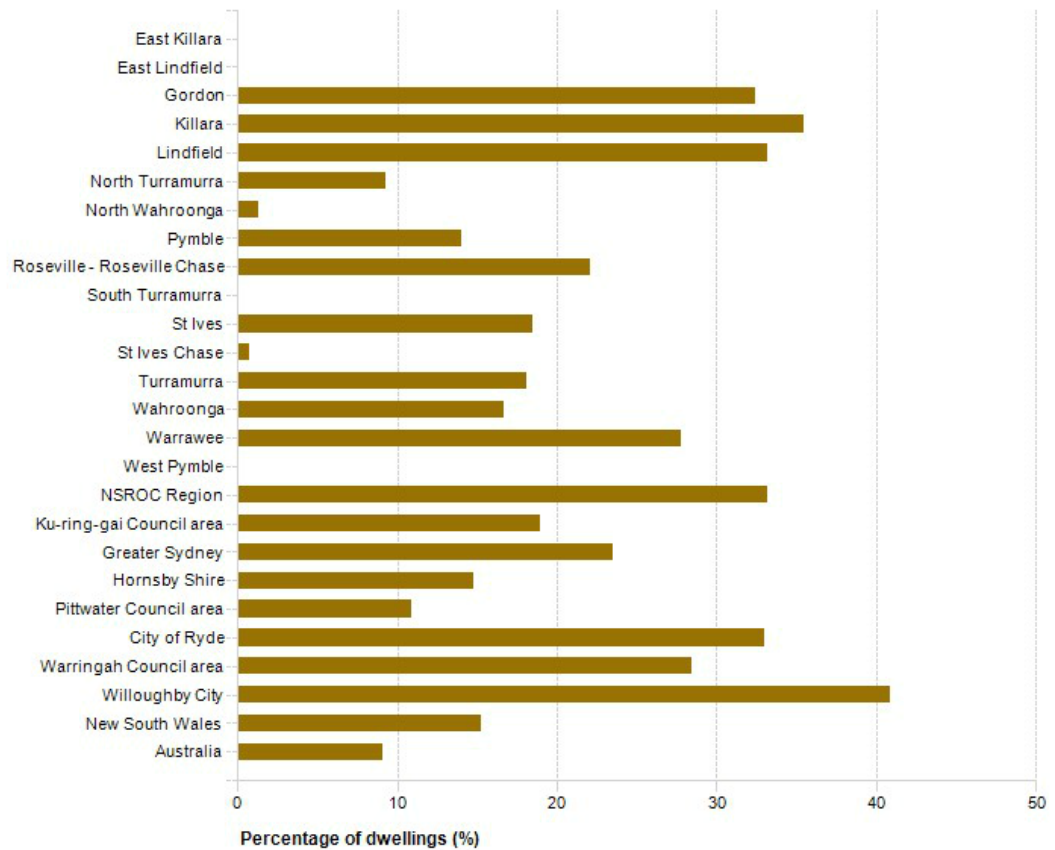
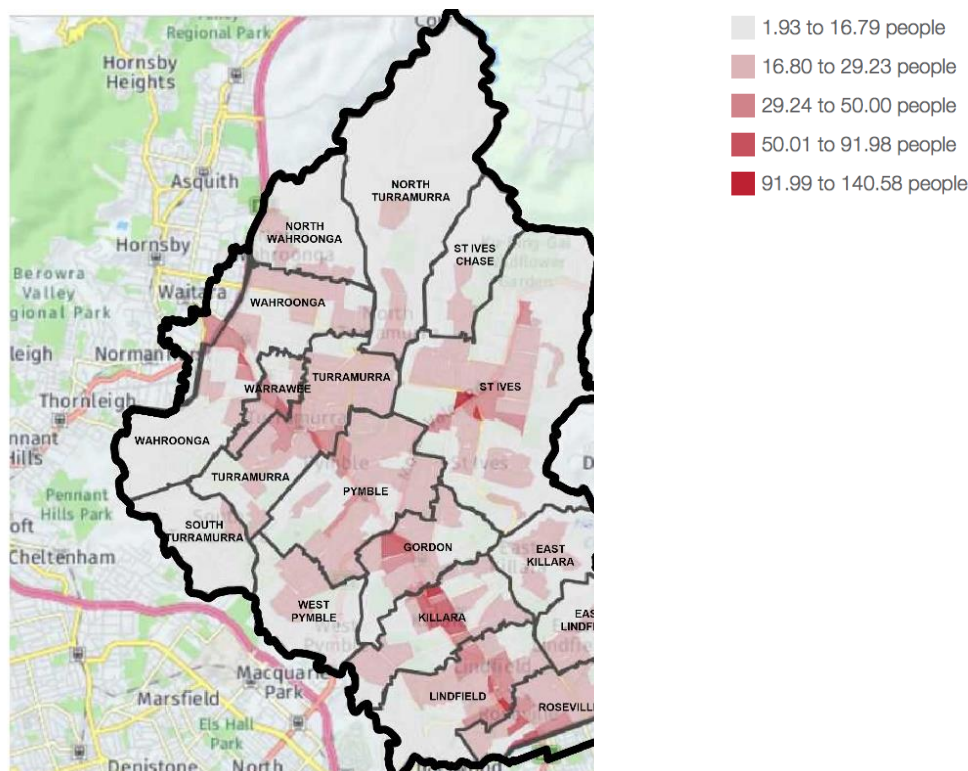


Figure 4 High-density dwellings in Ku-ring-gai LGA 2016 as a % of dwellings

The following map shows the number of people living in high-density dwellings by suburb. Refer also to Map 4 with residential zoning (2015)



MAP 5.

Number of people living in high-density dwellings by suburb: Ku-ring-gai Council Source .id the population experts

Impact of housing density on parks and play spaces

As housing density increases, the general demand for public parkland will increase, and the pressure on natural areas will also increase.

The Ku-ring-gai Open Space Acquisition Strategy 2006¹¹ report clearly articulated the issues around the lack of adequate open space, the inequitable distribution of parkland, and issues of quality and sufficient diversity for not only the existing population, but the growth predicted at that time for Ku-ring-gai.

The high proportion of children and dwelling density are more of an issue when the importance of quality play environments for children and the significance of outdoor play in children's development are taken into account.

As the numbers of children in higher density housing increases, there is a commensurate increase in demand for quality accessible spaces with specific qualities. Parks, bushland and their associated vegetation and habitat, are of particular significance.

Increased demand also places pressure on the management of the Council's resources, and on existing parks and play facilities, which are currently stretched.

Volume 2 of this report examines each Ku-ring-gai suburb and the implications of demographic data, growth patterns, demand and the supply of parks and open space for play. The recommendations for each park take these factors into account.

http://www.kmc.nsw.gov.au/Plans_regulations/Building_and_development/Open_Space_Acquisition_Strategy

Areas with higher density housing and higher proportions of Children – implications for play space provision

Younger children in higher density housing are less likely to have access to private yards. They are therefore less likely to play outdoors; have less access to nature and are less able to interact with soil and plants than children living at ground level.

Given the importance of outdoor play in the development of young children, younger children have arguably a strong need for the provision of open space close to their higher density residential areas.

Some of the suburbs that have been identified above as areas with rapid growth in the density of housing are also areas where the proportion of children in the population are high, relative to both Ku-ring-gai and Greater Sydney. Killara has had a large increase in population since 2011, a high number of people living in high-density housing and a high proportion of children.

A more detailed analysis is required to identify whether the exact locations of each group overlap, but it is worth noting that some suburbs will require more careful attention to play provision than those with an abundance of open space.

Lindfield has both a higher proportion of 5-11 yr. olds *and* a high proportion of high-density housing. Lindfield also has a high proportion of 0-4 yr. old children.

Killara has a high proportion of children and increasing housing density.

Both Lindfield and Killara were listed in the 2006 Open Space Acquisition Strategy as priority suburbs already lacking in parks and open space.

Children needing assistance and developmentally vulnerable

In Ku-ring-gai 54 children under 4 years of age need assistance with core activities, 158, 5-9-year olds and 259 10-19-year olds, also need assistance.

Some 1.4% of children aged 10-19 years in Ku-ring-gai require assistance. A significant number are young children, being cared for by their parents. A large proportion (27.0%) of those with a disability in Ku-ring-gai live in couple households with children. However, this is lower than the Greater Sydney average of 30.8%.

Table 6. Children needing assistance

Age group	Number	% of age group
0-4 years	54	0.9%
5-9 years	158	1.8%
10-19 years	259	1.4%

Households with someone needing assistance have a median weekly income of \$1,782, in contrast to the median income for the general Ku-ring-gai population, which is \$2,635 per week.

Data from the 2015 Australian Early Development Census found that 13.3% of Ku-ring-gai school starters were developmentally vulnerable in one or more measures. This figure is considerably lower than the New South Wales average of 20.2%. Those children in Ku-ring-gai with development issues are more likely to have developmental problems with social, emotional and communication development, but perform well on physical, language and health development¹².

¹² For more information on the Australian Early Development Census, please see <http://www.aedc.gov.au/>

While a lower proportion of children than the Greater Sydney population is likely to have a disability the income data suggests those families with a disability are likely to have fewer resources than other families. In addition, these families are likely to have higher demands on their time, greater need for enhancing development opportunities for children with a disability and more significant challenges in transport and accessing typical play facilities. For these reasons, access to play facilities locally that are inclusive, provide more sensory, social and play stimuli other than physical challenges, is a high priority in local parks, not only those spaces that families need to get to by car.

Culturally and linguistically diverse people in Ku-ring-gai

Ku-ring-gai has become more diverse over the past 10 years.

At the time of the 2016 census, 45,908 Ku-ring-gai residents were born overseas, representing 38.9% of the total population. Of these, just over two-thirds were born in non-English speaking countries. In 2016, the main non-English countries of origin Ku-ring-gai residents are from China, Hong Kong and South Africa.

More than 32,700 residents spoke a language other than English at home in Ku-ring-gai in 2016.

Some 14% of the Ku-ring-gai population speak either Mandarin or Cantonese at home.

Values associated with the benefits and role of play; the use of local parks; nature play and use of the outdoors generally; preferences for activities, and the age of independence for children are all factors likely to be influenced by cultural background and experience.

For children and families from non-English -speaking cultures, play spaces may provide essential conduits for social inclusion and interaction with other local people.

Play spaces therefore need to be welcoming to people of a range of cultural backgrounds, and should include activities likely to be popular with those children and their adult companions or carers. A range of provisions for cooking and preparation of food, as well as a broader range of activities and different games may be welcome.

How demographic data is used in the Ku-ring-gai Play Space Strategy

This section has provided some insight into factors that affect *demand* for play spaces.

The previous pages have discussed *supply/distribution* of parks and Ss and whether the people living in the residential areas of Ku-ring-gai can easily access public parks and play spaces within walking distance from home (Map 2). Map 3 also indicates play spaces of *high dependence*- i.e. those areas where there are few or no other choices for play.

The information from these two sections will all then be combined and overlaid in the more detailed suburb maps in Volume 2.

This mapped information helps to:

- establish priority areas for play provision
- strengthen and update the recommendations for open space acquisition where required
- make recommendations to remove play equipment where sites are unsuitable or under-utilised
- consider the design qualities of spaces where there is high demand and low levels of provision (compensation)

This information will feed into the more detailed reports and recommendations for each suburb of Ku-ring-gai, and allow for planning and budgeting, as well as planning connections and links to enable community movement.

Priority areas with multiple indicators

Residential areas which have high levels of any of the factors mentioned above, (high density housing, a high proportion of children in the population, as well as population growth) and especially those where multiple factors apply, are of particular relevance to the provision of play opportunities.

Areas where these demographic influences are also coupled with a lack of access to quality play spaces are considered to be of the highest priority. Three situations need to be considered:

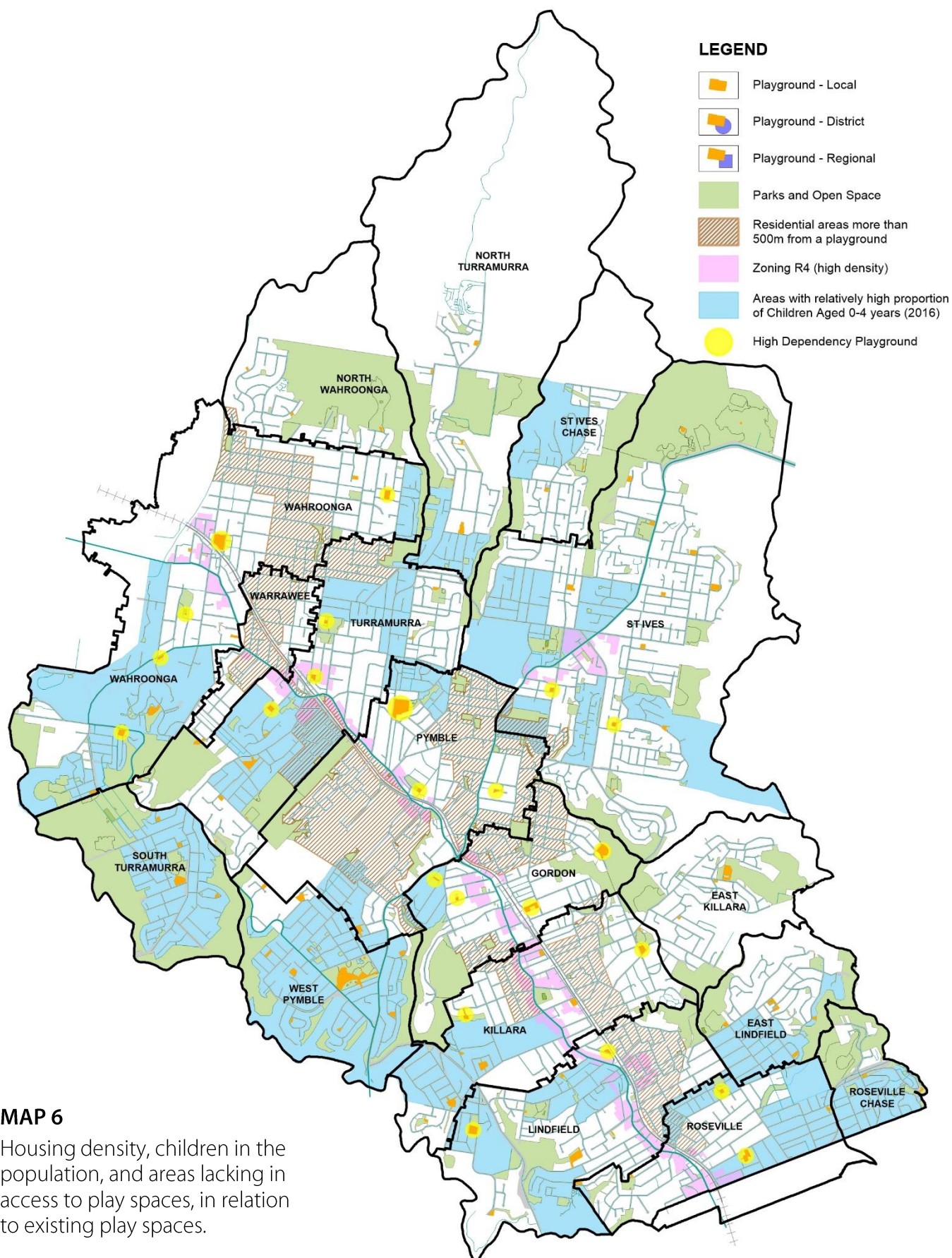
- 1. Areas where there is an overall shortage of open space, parks or play spaces.** These may also be areas that have not in the past been high-density residential but are currently transitioning to high or medium density residential developments or likely to do so in the future. These zones need to be 'flagged' in the planning process, so that acquisition of land for open space/ play becomes part of the strategic planning process for Ku-ring-gai Council. This process is already underway with the Open Space Acquisition Plan, but children's play requires particular attention due to its strategic importance in the physical and developmental well-being of children.
- 2. High Priority Areas** are those where there are currently *at least* two of the following factors affecting the same area:
 - high existing or growing levels of high and medium density housing
 - a relatively high proportion of children in the population
 - a shortage of parks and/or play spaces.
- 3. Play Spaces in Areas of High Dependence** are those where an existing play space is the only one in a relatively large area and there is a lack of other purpose-provided play spaces or general open space.

The actions required in these situations are discussed in the Recommendations in Volume 2.

Higher Priority Areas need particular attention paid to the availability of diverse, quality, accessible and inclusive opportunities for outdoor play and recreation. Refer to Map 6.

6. play value, play space design and the play space assessment reports





How are the Site Assessment Reports compiled?

Volume 2 of this report contains reports on each public play space across all the Suburbs of the Ku-ring-gai LGA. The objectives of these assessments and the resulting reports are to communicate:

- suggestions as to how to improve the play value of the park and play space, in line with the vision and philosophy discussed in this report,
- which spaces might be redundant
- how to better meet the changing needs of the community.

The information that contributes to these assessments has been gathered from numerous sources:

- Reference to detailed maps for each Ku-ring-gai suburb
- Reference to detailed demographic data for each suburb as outlined previously
- Detailed inspection of the Council's GIS mapping
- Review of audit information for each site undertaken annually
- Reference to site photos and to street view where available references to council's website
- Site visits to some parks
- Recommendations from Ku-ring-gai Council officers.

The assessments take into account the 'big picture', starting with:

- an overview of each suburb or precinct and how easily residents can access parks for play from their homes.
- identification of areas which do not have easy access to parks and play,
- the level of dependence upon a particular park.

Zooming in a little, we examine the immediate neighbourhood around a park, identifying the context and

- whether there are schools, early childhood centres, shopping centres, sports facilities etc. nearby that may suggest a natural usage pattern and user group
- the location of other parks nearby
- the prominence of the site in the neighbourhood
- footpaths and means of access.

We then investigate the park itself and:

- the physical character of the site
- what the park itself actually offers in terms of play activities and their value
- the overall amenity of the site; shade, furniture, access paths etc.
- play opportunities offered by the landscape
- play equipment lists and condition/ audit reports.

We describe this latter group as the play value offered by the site. Naturally this is a subjective assessment.

In order to make some of these subjective ideas more transparent, the discussion overleaf attempts to capture some of the nuances that have been considered as background to the site assessments.

assessing play value

what do we mean by *Play Value*?

It is vitally important to convey the idea that quality play provision is not simply about play equipment.

Some play activities seem to be of an inherently higher quality than others, engaging children at a deeper level and contributing to their development through the use of communication and language, social and physical skills, cognitive engagement and problem solving, creative and sensory exploration, and testing resilience, persistence and other personal qualities.

This play behaviour (simplistically described) frequently:

- is complex, involving physical activity *as well as* imagination, exploration, role play, social interaction, fantasy or creativity,
- extends over time and sometimes on repeat visits to the same place,
- involves more than one child (though not always),
- flows between spaces ,
- incorporates some loose elements/tools/materials or props,
- changes and develops during the play,
- is child directed – that is, the ideas are developed by the children using the place in a manner not envisaged by not by an adult designer.

It is more than the purely mechanical (though nonetheless valuable) activities such as swinging, sliding, spinning, climbing or rocking, although each these activities can easily be converted into more complex play by children adding their own games.

Spaces that stimulate this quality play can be described in a shorthand way as providing good *play value*. Frequently the juxtaposition of some open-ended feature close to a more prescriptive item opens up possibilities for play that don't occur when these items are placed on their own. This is the reason for emphasising (in the discussion overleaf) the importance of:

- loose/ open ended items,
- beneficial relationships between items, and
- spatial complexity.

These three aspects open up possibilities for children to develop more complex play on top of what has been provided by the designer/ manufacturer. Detailed attention to the design of the landscape is required in order to achieve these three important aspects affecting play.

As resources are limited, Council aims to obtain the best value from its investment in play. Unlike other investments, where a monetary return provides an obvious measure of success or not, the value obtained from investment in play provision is not as easily measurable. It accrues to the user and only indirectly back to the provider; it does not show up in accounting spreadsheets; and the value obtained from any play element varies widely from person to person and varies over their lifetime.

This is therefore a 'grey' area at best and remains somewhat subjective. The discussion overleaf is an attempt to tease out the essence of what *play value* means and how to assess it in a useful and succinct way.

Council is also bound by a duty of care to reduce the risk of injury to the public, while keen to retain the level of interest and challenge offered in a play space. Risk management practices, which Council considers obligatory, can influence and restrict opportunities for play in public, local government-provided play spaces. The level of challenge and risk taking may therefore not be as great in these spaces as might be available in supervised spaces managed by trained staff such as education centres or pre-schools.

Basic functionality

The following are considered entry level requirements for most play spaces, depending upon their level in the hierarchy and some other important factors about their location and role in their precinct.

They are based upon common observations about children and adults' play and social behaviour and are intended to assess whether the most basic needs are being provided for. The following questions apply:

- Do people with disability have general access to parks and facilities? Note that in Ku-ring-gai topography makes this difficult on some sites.
- Is there a choice of types of amenities (such as furniture, shade etc) for users from park to park?
- Which ages and abilities/skill levels been catered for?
Is there a choice of settings for play? These could range from man-made/synthetic to natural.
- Are the elements placed in a way that encourages the play to flow naturally from one item to the other?
- Is there a choice of types of play activities /experiences and materials for play? For example...
 - does the space provide for important forms of movement and physical activity?(such as swinging, bouncing, spinning, sliding, climbing)
 - does the space encourage social/role/imaginative play?
 - does the space have any loose elements for creative use by children?
 - does the space encourage cognitive activity during play?
- Are design elements, spaces and furniture placed in a way that encourages people to meet and interact?

The Everyone Can Play Guideline¹⁵ articulates these as key questions:

- Can I get there?
- Can I play?
- Can I stay?

and expands upon them with the six guiding principles of:

- Find
- Fit
- Choose
- Join In
- Thrive
- Belong.

¹⁵ <https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/everyone-can-play-guideline-2019-02-20.pdf>

The other subtle qualities that make play spaces work

Good play spaces will build on equipment provision, but with additional qualities about the whole space that are often difficult to quantify.

Gibson⁴ introduced the term 'affordances':

"clues in the environment that indicate possibilities for action"

These are the clues that invite children to play with the empty box rather than the Christmas gift; to dance on a low deck that feels like a stage; to gather up the loose mulch and use it to 'cook' with; to climb a rocky embankment rather than use the steps; and to balance along a wall rather than use the path.

They are the subtleties in spaces that create interest to children and enhance usability and play value. They are rarely connected to how a space looks to adult eyes.

The qualities of the space itself are also important; large and small; open or contained; up and down; complex and inviting; or dull and exposed.

The more children depend upon any space for all of their regular outdoor play experiences, the more important these subtle qualities are in any design. Boredom can increase incidences of vandalism and also increase risky behaviours through the desire for challenge.

Vital design attributes

The following attributes add this more subtle layer to the play experience and contribute to the value that can be derived from any play area:

- Loose materials that enable children to manipulate the environment, such as mulch, vegetation and sticks.
- Inclusive, physically accessible design that stimulates social interactions through children playing alongside one another, or side by side.
- Multi-purpose/adaptable items that can be used by more than one group (age/abilities) and for more than one purpose. For example, a cubby space can become a castle/fort, a pirate cave, a hospital or class room, depending upon the game
- Beneficial physical relationships/connections between elements
- Spatial complexity.
- Opportunities to explore and discover beyond the boundaries of a designated play space and extend the play, such as paths through adjacent gardens, nearby trees to climb.
- The overall quality of the landscape setting.

The concepts described above are further illustrated overleaf.

GENERAL PHYSICAL ACCESSIBILITY

Refer to NSW Everyone Can Play Guidelines –“Can I Get There?”

Paths provide order to a space and provide physical access and orientation

To be fully accessible and inclusive, paths need to offer kerb cuts/kerb crossings, barrier-free entrances, and openable gates.



A RANGE OF AGES, ABILITIES / SKILL LEVELS and INTERESTS

As children develop their play interests and capabilities change too. Different age groups can be targeted through the choice of materials and play elements.



It is valuable to provide a choice so that children can still find interesting things to do as they grow and develop.



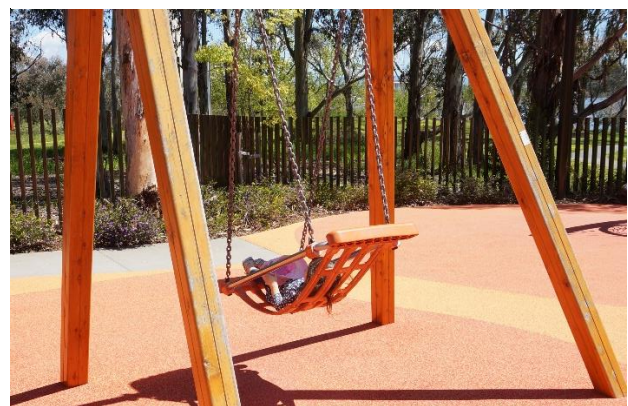
Children gain satisfaction as they master challenges



Many play activities can be used by multiple age groups



Some play elements can be used by children of any age or ability and deliver good value to the community.



A CHOICE OF TYPES OF PLAY ACTIVITIES, EXPERIENCES AND MATERIALS

There is a very wide range of options for providing for play and recreation for all ages and abilities



A diverse range of materials and design ideas broadens children's experiences



DESIGN THAT ENCOURAGES PLAY TO FLOW BETWEEN AREAS

Pathways, stepping stones, surfaces, decks and bridges provide links within play spaces that add play value.



A CHOICE OF MOVEMENT AND PHYSICAL ACTIVITY TYPES

Children benefit from a rich choice of movement types that help skill development, strength and sensory integration.



Some activities should be provided at a range of heights and degrees of challenge so that both younger and older children can use them comfortably.



SOCIAL/ROLE/IMAGINATIVE PLAY

Small spaces with additional seats, shop counters, open ended elements that children can adapt for their play benefit from the availability of loose materials such as mulch or leaves, pebbles, sticks or flowers to add to the play



INCLUSIVE DESIGN ELEMENTS AND FURNITURE PLACED TO ENCOURAGE PEOPLE TO MEET AND INTERACT

A choice of accessible seating, shade, and furniture welcomes social interaction in play spaces



AVAILABILITY OF LOOSE MATERIALS THAT PROVIDE CHILDREN WITH OPPORTUNITIES TO MANIPULATE THE ENVIRONMENT

Loose materials such as leaves, seedpods, sticks, sand, flowers and drifts of autumn leaves make excellent play materials for self directed play.



The intention is to provide some play elements that an able-bodied child, or a child who uses a mobility aid such as a wheelchair or walking frame can access easily, use front on, and play alongside/with others. Critical issues are ease of access; the fact that the space is somewhat multi-purpose, and that the play can be adjusted according to the players and their imaginations.

These examples:

- are located on a wheelchair accessible route with
- knee-in room for front-on use
- can be played with by a group together, or an individual on their own.



**MULTI-PURPOSE/ADAPTABLE ITEMS THAT CAN BE USED BY
MORE THAN ONE GROUP (AGE/ABILITIES) AND FOR MORE THAN
ONE PURPOSE**

These items can typically be used by quite small children as well as older children or adults who can physically fit on them

They can be used for purely physical movement, or as part of a game.



BENEFICIAL RELATIONSHIPS /CONNECTIONS BETWEEN PLAY ELEMENTS

Locate cubby spaces and other elements to encourage imaginative/ role play between them.



The juxtaposition of this stone horse and the rustic shelter/cubby enables children to link the two in their play.



The positioning of larger and smaller spaces next to each other and underneath a structure enables children to create more interesting games



SPATIAL COMPLEXITY

A complex landscape for play encourages children to explore, stimulates a variety of games and activities, and provides children with elements to use in games. It provides a variety of scales of space that suit a more complex range of play behaviours.



Complexity can be created with planting, terrain and site levels, and by including some solid sections of equipment and structures. These need to be carefully placed and aligned with visual permeability, to align with CPTED principles for site safety and surveillance.



OPPORTUNITIES TO EXPLORE AND DISCOVER BEYOND THE BOUNDARIES OF A DESIGNATED PLAY SPACE AND EXTEND THE PLAY.

Landscape treatments outside the equipment areas can extend the value of the play space by inviting children to explore the nearby environment.

The play space itself may need to direct children to nature play where there are adjacent natural settings.

This is especially relevant to Ku-ring-gai with its abundance of natural bushland in many suburbs.



The interface between the designated play space, and the surroundings, can be used to encourage children to link their play into the broader environment



THE OVERALL QUALITY OF THE LANDSCAPE SETTING

The qualities of the environment affect the play value and the overall amenity of the space; a pleasing landscape will encourage adults to bring children outdoors.



Poor quality settings like the older one pictured do not invite users into the park and limit the possibilities for play.



Diversity from site to site-a choice of character, settings, activities

This section has explained that there are many ways that parks and open space can be planned to deliver quality play settings for children and families.

In many cases the play space assessment reports have recommended that play spaces *complement* rather than *duplicate* one another. This is an important concept, and it means that council should try and vary

- the designs of spaces, to the extent that this is possible
- the activity types (even down to the type of swing or slide, if these are a given)
- the materials and products

for sites adjacent to each other or where the same users might be expected to go.

For example, even within the generally overall bush character of Ku-ring-gai LGA, there are nuances of character that provide important differences for users, such as Greengate Park vs Bicentennial Park.

Generally, it is unlikely that any one park can on its own meet the needs of every resident, as peoples' needs and interests vary from time to time and from person to person.

It is assumed that residents need to have some choices as to where they play, so they can select the setting that suits their needs best within their residential precinct. This also assumes that people will be able to move around their neighbourhood, between choices of parks and play spaces.

A diverse spectrum of types of spaces for the purposes of play and recreation (as well as for habitat and amenity) will allow children to experience a range of types of space.

EXAMPLES of DIVERSE PLAY SETTINGS

A choice of settings for play, ranging from man-made, manicured, to the more natural and wild.



More examples of diverse play settings.



Attracting families to play outside and in bushland

In previous recent generations, children were very much able to find and create their own activities in parkland, in the general vicinity of their homes.

In spite of the multiple benefits of such independent outdoor play, (including the development of physical and cognitive skills, independence, persistence and resilience) patterns of children's play outside are changing rapidly in urban and suburban Australia. This high quality and often child-directed play out of doors now also has to compete with a massive increase in time spent by children indoors, on screen-based and programmed activities, and in a highly organised, supervised and generally sedentary lifestyle.

The Shrinking Territories of Children – A World- Wide Trend

The reasons for the shrinking of children's independent access to the outdoors are complex. Parental fears of traffic and of strangers are widely reported as primary factors. Changing expectations regarding safety, a general unwillingness to allow children to navigate risks, and social expectations regarding 'good' parenting¹⁶ have affected children's independent access to their world.

The predominance of working parents results in children spending more time in care, and in programs. The rise of appealing indoor activities and screen-based games no doubt also play their part.

Children's health, fitness, weight and eyesight are all reported to be negatively affected by these lifestyle changes and by the movement indoors.¹⁷

¹⁶ Skenazy, Lenore <http://www.nysun.com/opinion/why-i-let-my-9-year-old-ride-subway-alone/73976/> Accessed 14 January 2015

¹⁷ Clarkson, K. Occupational Therapist The Body Sphere Interview with Amanda Smith ABC Radio National Sunday 23 March 2014 5:05PM

Parents as filters of children's experience

These factors have major implications for how parklands and play spaces are used. It is clear that many families still generally value outdoor play but patterns of engagement with the outdoors have changed for children.

Children are now predominantly taken to parks and play spaces by adults.



Parental presence: a fine line between responsible supervision and children's independent play. Council play spaces require parents to supervise their children at all times. Clearly the age of the child affects the degree of supervision required.

The types of play opportunities that are found in parkland need to appeal to parents, grandparents and other carers, or it is unlikely that they will be discovered by children. Ironically, the key to children's rediscovery of independent play still lies in the hands of their parents.

In order for children to benefit from play in natural settings, the design of play spaces today is therefore a fine balancing act which needs to:

- provide spaces that are generally appealing to adults and are recognisable to them as suitable spaces to bring children, (especially pre-school or younger primary school age groups)
- provide opportunities for social interaction (for adults as well as children)
- provide some play opportunities with which children and adults can instantly engage (such as the wide range of activities that are offered by play equipment of all kinds), and then
- provide links and connections to nature within the park and play space that encourage children's enquiry and further exploration, and to discover the benefits and opportunities of play in the 'real' adjacent natural areas.

Play in Nature

Today's re-emerging interest in natural settings for children's play (in both Australia and overseas) is a response to many factors. There are many converging ideas behind this:

- The frequent dissatisfaction with the limitations of many catalogue play spaces and man-made products currently in use, coupled with
- A renewed interest in environmental stewardship in many groups in the community
- Convincing research about the benefits of nature to humans¹⁸
- Theories of learning and pedagogy which link natural play environments with high quality learning opportunities through play¹⁹.

Marketing nature play

A careful marketing and education program would be valuable to support the location and quality of Council's play spaces and promotion of play in natural settings. There are many directions such a campaign could take. Some ideas are listed below.

Website and social media

- Prepare a website link with information about play in nature; ideas for play; benefits of play outside etc. and extend this to other social media pages that may be privately managed

Promotion through programs and other organisations

- Promote through Council's educational programs such as vacation care, toddlers and tadpoles, bush kids, junior rangers club and child focused events such as bush birthdays parties and library story time.
- Promotion through schools and early childhood centres to gather support from families and children's services providers
- Advocacy/promotion from Play Australia, Kidsafe, International Play Association, Play for All, and Bloggers such as North Shore Mums.

Site information

- Provide inclusive signs at appropriate sites directing residents to nature play opportunities in adjacent bushland

¹⁸ https://www.deakin.edu.au/_data/assets/pdf_file/0004/310747/Beyond-Blue-To-Green-Literature-Review.pdf

¹⁹ https://www.researchgate.net/publication/248993926_The_design_of_landscapes_at_child-care_centres_Seven_Cs

7. analysis, key issues, and recommendations



key issues and recommendations

Issues arising from Play Space Suburb Assessments

The following section discusses some of the issues that have arisen as a result of the suburb assessments, and makes a series of recommendations for consideration.

Resourcing play space development

Many problems with play spaces that have been noted in Volume 2 of this report are the result of a piecemeal approach to play space resourcing, and an overall lack of resourcing for play space development and maintenance.

In Ku-ring-gai, over 70% of play spaces are older than 15-20 years before funds become available for replacement and renewal. These old last century play spaces are less relevant, are of low quality, offer low play value and are typically neither accessible nor inclusive.

In the long run this disadvantages children and families.

RECOMMENDATION: Resourcing play space development

It is recommended that play space planning, design, provision and management be resourced adequately to facilitate the provision of quality park landscapes and amenities for play, recreation and social interaction.

Removal of play equipment

Some play spaces have been recommended for removal in this report. This is recommended where:

- The play space is no longer located where surveillance and access can be met due to changing local environmental constraints, housing developments, or increased traffic.
- The play space is not in a high priority area; other recreation provision such as ping pong tables or items that appeal to a wider demographic might be provided instead.
- The cost of maintenance exceeds the value to the community
- Observations by council officers indicate that the play space is not used by the community or is used only rarely.

RECOMMENDATION: Removal of play equipment

- *It is advisable to engage the community in the process as it progresses*
- *It is recommended that where equipment is cleared by the auditor to be safe enough, it should be retained until the end of its useful life and then removed.*
- *All underground footings, edging and other remnants should be fully removed and disposed of, unless they can be re-purposed appropriately. Note that it is Council policy that equipment that is removed cannot be re-used or sold and will be recycled at the end of life.*
- *when equipment is removed, it is advisable to create a new landscape design for the park itself, recognizing that most sites still offer major recreational and play value to the local community.*
- *In other cases, the disposal of the land would fund a better play space development elsewhere that would benefit more community members.*

Open space acquisition in neighbourhoods

In 2006 Ku-ring-gai Council adopted an Open Space Acquisition Strategy for areas identified as critically short of open space and parkland. This was followed by the 2012 Ku-ring-gai Local Environmental Plan (Local Centres). This only applies to areas near the Local Centres LEP development and specifically to land surrounding Turramurra, Pymble, Gordon, Lindfield, Roseville railway stations and St Ives Village Green.

There are other parts of the LGA where there is a shortage of open space/ parks for play and recreation.

RECOMMENDATION: Open space acquisition in neighbourhoods

It is recommended that as a high priority Council investigates areas outside Local Centres where shortages of open space have been noted, and develops a strategy to acquire land for parks and recreation when development intensifies beyond the Local Centres into neighbourhoods.

Managing areas where there is a shortage of parks and general play opportunities

The Ku-ring-gai LGA has suburbs that vary widely in their distribution and availability of parks and play spaces.

Map 2 has identified the residential areas that do and do not have parks and play spaces available within approx. 400-500m.

Map 3 has also identified parks of high dependence – i.e. where residents do not have much choice as to where they can play outdoors.

In each case, the situation varies regarding the quality of spaces that are available; options to find alternative space or opportunities; the nature of demand and the relative urgency of the problem; and recommendations for design that will help to redress the situation.

RECOMMENDATION: Managing a shortage of parks and general play opportunities

Ku-ring-gai Council should aim to enhance the network of purpose-provided parks, open spaces and play areas across the LGA through design. However, where these options are limited, consider expanding the repertoire of child friendly environments through:

- *Compensating for the lack of quantity in the short term by improving quality in the existing spaces, and allocating resources to achieve this.*
- *Ensuring that sites offer a quality spectrum of play settings and opportunities and cater for a range of ages and abilities.*
- *Consulting children in detail about their play requirements and whether these are currently being met.*
- *Investigating options for leasing or sharing existing land, outdoor play spaces and facilities owned and managed by other entities such as schools and churches. Refer to Map 3 showing High Dependence play areas, and areas with a shortage of access to play spaces. These areas should be investigated as a priority.*

Minimum useful sizes of land for parks

The minimum size of parkland has been established in the 2006 Acquisition Strategy adopted by Council, which is 3000m², or less where other criteria can be met.

RECOMMENDATION: Minimum useful sizes of land for parks

- *If opportunities arise to assemble land specifically for the purpose of play provision in 'new' or higher density residential areas, the criteria in the adopted Acquisition Strategy will be followed.*
- *Land is preferred to have a prominent street position or be located on a corner.*
- *A group of parks within one catchment should be designed as a whole system, together.*

Parks set back behind houses

Some parks in Ku-ring-gai are located behind houses with no street frontage, prominence or surveillance. This was a strategy of the Radburn Scheme of the 1960s, aimed at minimising conflicts between cars and children and providing direct local access from houses to parks for play and pedestrian circulation. It is also a remnant of parkland being 'left over' land otherwise unsuitable for development.

Today these parks need to be shared amongst the broader community. It is important to consider:

- prominence (the ability to be seen and noted by residents so they can use the reserve)
- surveillance (informal viewing of the park from the outside).

RECOMMENDATION: Parks set back behind houses

It is recommended that where parks that are not easily visible need to be retained due to the lack of other local play opportunities, their frontage should be clearly delineated with public art, threshold designs, gateways and clear signage to encourage use and access.

Footpaths, topography and access to play

One of the most attractive aspects of Ku-ring-gai LGA is the beauty of the natural environment and the bushland and national parks that surround the residential and commercial areas. The terrain that comprises this environment can limit physical access by foot and bike through the community - especially for children and teenagers but also for seniors and anyone not driving a car. Refer to NSW Everyone Can Play Guidelines- "Can I Get There?".

Where residential areas do not have footpaths a dependence on public transport and cars has many long term disadvantages both for the environment and for the health and wellbeing of the community.

The topographic grades and lack of footpaths create barriers to access for many residents with disabilities without a car.

RECOMMENDATION: Footpaths, access and topography

- *Investigate opportunities for more linking of footpaths connecting key local facilities such as parks, play spaces, schools and shopping centres and residential areas (and especially including senior living areas).*
- *Where topography or local conditions restrict physical access into the social spaces and play opportunities of a park, it is recommended that adjacent parks and play space be developed as inclusive and accessible, by way of compensation.*

Getting better value from play investment

To maximise the value from its investment in play spaces, linking the design of equipment into the landscape, as described in Section 6 will increase the scope for children to extend their games, using their imaginations and broadening the types of creative play.

Play structures can enhance all of these activities for both small and large groups by creating interesting and complex spaces; with more than one fast exit (such as slides and slide poles); with ups and downs of varying degrees of challenge; and by creating small scale intimate cubby spaces, high lookouts and shop counters for role play and

imagination. All of these work better when they relate well to other features in the landscape that can be brought into the play at will by the children themselves. This does however require a higher level of park maintenance and associated resourcing to ensure that the non-structured play environment is kept in good and 'playable' condition.

RECOMMENDATION: Getting better value from play investment

- *It is recommended that less emphasis be placed upon freestanding items of equipment only, and that play equipment be provided in a more complex connected manner that relates to the surroundings, to enhance the play value of the whole space.*
- *Some items of equipment such as swings must remain freestanding to comply with Australian Standards.*
- *Section 6 expands on this topic.*
- *A higher level of investment in recurrent maintenance and resourcing is required to ensure the whole space provides good play value; for example, for replanting, structural repairs, erosion control, wear and tear, and risk and safety inspections.*

Diversity and the spectrum of play opportunities

Section 6 discussed the principle of diversity, and sites of varying character/settings and activities complementing one another within the same residential catchment.

A diverse spectrum of types of spaces for the purposes of play and recreation (as well as for habitat and amenity) is most likely to meet the diverse needs and abilities of community members.

Some examples of settings other than the more 'standard' play equipment include:

- open free running grassy spaces,
- undulating grassy mounds and embankments,
- programmed activity spaces and amphitheatres,
- wild spaces in bushland,
- sculptures that meet provisions of Australian playground safety standards,
- urban water play zones where health and safety can be funded
- bike paths,
- playground trampolines
- skate and scooter/wheeled toy facilities, and
- hard courts and ping pong tables.

RECOMMENDATIONS: Diversity and the spectrum of play opportunities

It is recommended that:

- *Each suburb should ideally have a choice of open spaces and play opportunities.*
- *The settings for these play spaces should maximise the diversity available to residents and visitors and contribute to diverse outdoor play, recreation and social experiences.*
- *The exact mix of activities and settings need to respond to the physical environment and the community's needs.*

Landscape elements for play requiring less intensive maintenance

As in many LGA's, the cost of maintenance and risk management of 'formal' play spaces Ku-ring-gai is high. Because of the requirements of the Australian playground safety standards to regularly inspect, monitor and repair play equipment and surfaces, they require more intensive care than other parks, courts and sports facilities that provide for play and recreation.

RECOMMENDATION: Landscape elements for play requiring less intensive maintenance

To decrease pressure on limited resources for maintenance, it is recommended that Council considers the use of design elements that require less intensive inspections and ongoing maintenance such as

- *paths for bikes and other wheeled activities*
- *hardcourts with goal posts(basketball/netball)*
- *ping pong tables*
- *groves of trees for climbing*
- *large mounds and embankments*
- *low elements (less than 600mm high) that don't require impact absorbing surfaces*
- *amphitheatre seating and child-scale performance areas*

A whole-park upgrade approach will provide variety to the spectrum of play and recreation opportunities.

Promoting nature play

Section 6 described numerous issues related to the benefits to children of playing outdoors and in natural environments, and many issues affecting their access to such settings for play.

RECOMMENDATION: Promoting nature play

It is recommended that

- *Council undertakes a strategic promotion of the benefits of play, including in natural settings.*
- *Play space designs that deliberately incorporate natural and sustainable materials should be funded as a priority.*
- *Marketing and promotion will play an important role to engage the community and bring them along the journey; this also needs funding, resources and a whole-of-Council approach.*
- *Groups already promoting play (such as local early learning centres and schools, play networks advocacy organisations) be engaged to support Council's program advocating for quality play for children in Ku-ring-gai.*
- *Programs engaging children in outdoor activities in bushland, should be continued.*
- *The implications for risk management, insurance and possible litigation need to be explored and discussed so that Council officers present a unified vision to achieve this goal.*

Supporting Infrastructure

Because users often need various amenities to support their visits to play spaces, the availability of a range of specific amenities such as toilets, fences, drinking water, shelter, picnic/bbq areas etc. in each suburb is important.

These cannot be provided for every play space. The hierarchy of park classification will influence the provision of amenities based on numbers of expected users, duration of visits and the available infrastructure and resources.

It is recommended that the classification listed in **Table 3, Section 3** should be applied to determine where to provide furniture, BBQs, tables etc. and the degree of accessibility of the play space that is required.

Fences are controversial and many people are polarised regarding whether play spaces and parks should be fenced or not.

Some issues to be considered are listed below:

- Some families, including those with multiple births, very young children and children on the autism spectrum cannot use play spaces unless they are fenced, because of the difficulty of supervising numerous children at once, or children who abscond.
- To be effective for older children who abscond, fence heights need to be at least 1500mm and preferably 1800mm with multi-latch gates.
- Gates such as these make access for wheelchair users very difficult and can create a barrier to access and inclusion.
- The locks and hinges need constant maintenance and are expensive to replace.

- Fences can encourage undesirable practices; carers have been observed (by the author) placing their children inside a fenced area and not supervising them.
- By fencing play spaces, there is an implied message that children are to be kept in, and that they are not welcome in other places, including the rest of the park. Fences around a small area within a park prevent children from accessing other valuable areas of the park, and deny activities such as free running and nature play.
- In order to minimise the visual impact of a fence, and in order to maximise the play value of a whole reserve, it is often preferred to provide a fence around a whole park, rather than just around a smaller area of play equipment within that park. This reduces the caged-in effect.
- Provision and maintenance of suitable fencing can be expensive. Maintenance and upkeep of fences is not currently funded.

Dogs

The larger issue of animal management and sites for on- and off-leash dog exercising is not considered here in detail. However, it cannot be ignored; the Companion Animals Act states that dogs are prohibited within 10m of a play space. Council rangers will enforce fines when they encounter breaches. Signs state this clearly at every play space location. The issue of dogs in parks may cause conflicts. Fences inevitably become part of this debate but do not always solve the problem:

- Many dog owners use fenced parks and play spaces to exercise and contain their dogs off leash.
- Dog off leash areas leave people exposed to dogs and their faeces. This occurs in both fenced and unfenced parks.
- Some families enjoy visiting parks with both children and dog/s.

RECOMMENDATION: Fences

It is recommended that the need for fencing of play spaces needs to be carefully considered, and the main purposes of a fence clearly articulated prior to implementation. All play spaces do not need to be fenced.

- *A choice of fenced play spaces should be available to those who depend upon them, distributed in a geographically equitable way across the LGA (especially in Regional Parks.)*
- *Where fences are deemed to be required, care should be taken to ensure that they do not cage off a small area of play equipment from other potential play zones. Ideally a fence should enclose the whole park where this is feasible, to ensure that children have access to all the opportunities of the park, not just play equipment.*
- *Maintenance resourcing for fences must be provided.*
- *Where only a partial fence has been provided, it is useful to provide a seat so that a parent can place themselves at the opening to more easily supervise.*
- *Children's needs are considered a priority over the needs of dogs and their owners.*

Actions and Priorities

Following the assessment of each play space, a list of recommendations has been prepared, and these have been summarised.

Three levels of priority have been allocated to play spaces, as follows:

Priority High within one year	Play spaces that need the most urgent attention due to demographic/demand factors, high levels of dependency, and/or those where the quality of the play space do not meet the needs of the community.
Priority Medium within three years	Play spaces where the current design is outdated; where there is a relatively high level of dependence on the space and where an upgrade would make a big difference to users
Priority Low within five years or as required (reviewed annually)	Areas where there is no urgency to re-design the play space except for minor improvements as described in the Play Space Assessments and in the audit reports following safety inspections.

8. play space management and maintenance



Council play space design and in-house collaboration on play space provision

Play space design is a specialised task that in most instances is undertaken by Council's qualified Landscape Architects. In some cases, a qualified Landscape Architect is engaged as a consultant to produce the design for the play space.

In either scenario, design is based on current best practice, literature, continuing education, professional experience and judgement, and expert advice. It is also informed by play space asset inspection reports; available funding, and identified user needs. No two play spaces are alike and each setting and context is different.

The design goal is to provide inclusive and accessible play opportunities for all, based on the site opportunities and constraints, and the needs of the community.

In order to achieve the subtleties of design discussed in Section 6, and to ensure that ultimately the needs of the community (and especially children) are met, play space provision must be co-ordinated by one area within Council liaising with various team members and utilising Council's strategic integrated planning and reporting.

repairs, replacements, renewals - the importance of protecting the strategic vision

Following an inspection or audit as outlined below in this Section it is possible that some items or whole play spaces will be identified as needing remedial work, removal or replacement. Play spaces age, suffer damage or become redundant, and eventually the cost of repairs exceeds their value to the community.

The purpose of the recommendations below is to require a hold point and review of any proposals to refurbish a play space, even in a minor way, to ensure that the proposed works are consistent with the strategic vision for each site as outlined in Volume 2.

A number of scenarios are possible; some of these are outlined below.

Each needs to be planned for properly so that the end results of works on the ground in play spaces do not become a constant spiral of responses to immediate/urgent replacements, driven by short term availability of components, to patch up, build on and exacerbate previous design problems.

Recommendations

In order to break this cycle, it is recommended that strategies and processes should be developed ahead of time for all of the following scenarios that follow the inspection/audit process.

Urgent works

Urgent works that pose a serious hazard need to be acted on (removed or isolated) immediately. Small items such as hand grips, swing seats, missing bolts or fixtures and minor components can also be replaced as a matter of course.

Full removals and renewal /replacement of a whole play space

These need to go into a full re-design process.

Where some, but not all, major elements require removal/replacement

There are in-between cases where it is necessary to take a careful approach to partial renewals and replacements. It is easy for example to simply replace a slide with another similar slide, or a whole deck as well as its slide. However, frequently the replacement of 'like with like' will not be appropriate. The ad-hoc 'urgent' spending of significant funds on a small unit to replace a former item may then mean that the whole space will not be able to warrant an upgrade or expenditure for years to come, even if the original item and its replacement were both unused or inappropriate in that place.

Recommendations:

- *Even small actions must be consistent with the vision for play provision and with the Strategic recommendations for each site that form Volume 2 of this document.*
- *When any item that comprises a major activity within a structure needs to be replaced, an "upgrade/replacement process" needs to be flagged.*
- *For example, when a slide, or a deck, or any substantial structural element needs to be replaced it should call into question the cost of replacement versus installing a whole new item, and more importantly what that item should be.*

inspections, maintenance and record keeping

Safety Management System

The asset management, inspections and maintenance of public play spaces is an important part of Council's responsibilities and serves the overall vision for play provision as outlined in this report.

There are five critical components of a Safety Management System:

- Systematic record keeping
- Post-installation inspection of new or refurbished play spaces
- Routine inspection and maintenance (Level 1)
- Operational inspection and maintenance (Level 2)
- Comprehensive inspection (Level 3)
- Accident reporting procedures.

These points are discussed below.

Systematic Documentation and Record Keeping

New AS4685 - Playground equipment and surfacing Part 0: Development, Installation, Maintenance and Operation

Standards Australia has updated the previous AS 4486-1997 and this document became AS 4685 - Part 0 (released late in 2016). This Standard clearly outlines in detail the number and types of inspections, the accompanying maintenance tasks, and the record keeping practices that are required.

Key summary points as well as some more detailed extracts from this Standards document are included below. These summaries are not intended to replace the full text of the Standard, and the responsible officers must read the full Standard.

Record Keeping

As part of a safety management system, accurate records relating to playground procurement, installation, maintenance and repairs must be systematically stored and kept up to date.

Such records need to include:

- records of suppliers, manufacturers, designers and installers for each site,
- inspection and maintenance instructions,
- operating instructions, if applicable,
- dates of installation,
- any certificates of inspection and testing, if applicable,
- all operator's records of inspections, maintenance, repairs and modifications,
- incident records and subsequent actions.

These documents should be accessible when needed for maintenance, inspection, repairs and in the event of an accident.

Post-installation Inspections

A comprehensive post-installation inspection needs to be conducted by a competent person prior to opening of any play space to the public. The report should also include the results of any risk assessments and/or risk benefit assessments that have been carried out where non-compliances have been identified.

Routine inspection and maintenance (Level 1)

This is a visual inspection intended to identify obvious hazards that can result from wear and tear, vandalism or weather conditions. It should be carried out daily, weekly or fortnightly taking into account the frequency of use and local conditions. It is not a full technical audit and the intention is that this *should be carried out by staff who are already on site carrying out maintenance tasks*.

Planning the tasks:

- List the components to be inspected and maintained for each park and play space.
- Prepare a schedule with frequency of each task.
- Carry out the inspections and maintenance tasks according to the schedule.
- Keep accurate records of all work.

Competence

The staff members doing the Level 1 works need to be experienced and competent at inspecting the play space, equipment and surfaces thoroughly, carrying out the routine maintenance tasks, and keeping records. It is not a requirement that these staff be accredited safety auditors.

Routine inspections should check and report on:

- broken or missing parts of the equipment,
- loose-fill impact attenuating surfacing depth at least 300mm, and
- damage to unitary impact attenuating surfacing.

Routine maintenance tasks should include as a minimum:

- removal of broken glass, syringes, dog fouling and other debris or contaminants,
- raking and topping up loose-fill impact attenuating surfacing if there is insufficient material or if it is compacted,
- emptying of bins and removal of rubbish,
- cleaning tables, chairs, BBQ's and other auxiliary items,
- reporting dead overhanging branches for immediate removal,
- reporting and/or removing graffiti, and
- reporting vandalism.

Systematic, accurate records of inspections and maintenance procedures must be kept.

Operational inspections and maintenance (Level 2)

An operational inspection shall be carried out regularly, on a **monthly or quarterly basis** unless there are compelling reasons to deviate from this inspection frequency. This is not a formal safety audit and it is expected these tasks will be carried out by competent Council staff or approved contractors.

Planning the tasks:

- List the components to be inspected and maintained for each park and play space.
- Prepare a schedule with frequency of each task.
- Carry out the inspections and maintenance tasks according to the schedule.
- Keep accurate records of all work.
- Agree on procedures for dealing with breakdowns.

Competence

The staff members doing the Level 2 works need to be competent at inspecting the play spaces in more detail than Level 1, inspecting equipment and surfaces thoroughly, carrying out the repairs and keeping records. They do not need to be a qualified auditor or engineer but would be expected to be experienced in play space inspections and maintenance practices.

Operational inspections and maintenance tasks should include:

- all the issues listed in the Level 1 routine inspections described above,
- checking for excessive wear of moving or 'sealed for life' parts (including chain links),
- inspecting all moving parts subject to wear,
- ensuring that bolts and fasteners are secure,
- checking and removal of any protrusions and sharp edges,
- checking the structural integrity and/or stability of all playground equipment including auxiliary items. Equipment that relies on a single anchor or attachment point should be carefully inspected,
- checking corrosion, particularly within structural members,
- maintenance and repair of all impact attenuating surfacing,
- checking foundations below playing surface for exposed concrete, rot, and corrosion,
- checking and tightening of fixings and fastenings,
- check wire ropes and cables for fraying,
- check cableway main cable tension and the maximum speed of the traveller,
- check impact and attenuating edges of swing seats, pommels and other moving equipment that can impact users,
- check clearances beneath carousels and ensure that the underside is clear of protrusions and sharp edges,
- lubrication of bearings and bushes,
- checking that entrance gate closers and locking mechanisms are operational,
- checking that subsidence or other movement has not created new entrapment points, and
- other operational inspection and maintenance as appropriate.

Comprehensive inspection (Level 3)

This inspection/audit is intended to establish the overall level of safety of the equipment, foundations and playground surfaces. This inspection shall be carried out annually. The intention is to check both the design and the condition of equipment and surfaces.

Examples of factors that should be included in a checklist when conducting comprehensive inspections are included in the AS 4685 Part 0 document, but essentially the purpose is to check the design and condition of all play elements and surfaces for compliance with current Standards.

Competence

The staff members doing the Level 3 comprehensive inspections need to be competent and experienced in inspecting the play spaces for compliance with current Australian Standards.

9. endnotes

¹ **Everyone Can Play Guidelines** to create inclusive play spaces prepared by the Office of Open Space and Parklands, NSW Department of Planning and Environment 2019

<https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/everyone-can-play-guideline-2019-02-20.pdf>

² As per its obligations under Article 31 (U.N. Convention on the Rights of the Child).

³ The provision of open space guidelines, as contained in the GAA Precinct Structure Planning Guidelines include, in summary:

Local parks within 400 metres safe walking distance of 95 per cent of all dwellings.

Active open space within 1 kilometre of 95 per cent of all dwellings.

Linear parks and trails within 1 kilometre of 95 per cent of all dwellings.

⁴ Gibson, J...J. 1977 The Theory of Affordances