

# Open Space Acquisition Strategy

Ku-ring-gai Council

Prepared for:

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## I.0 INTRODUCTION

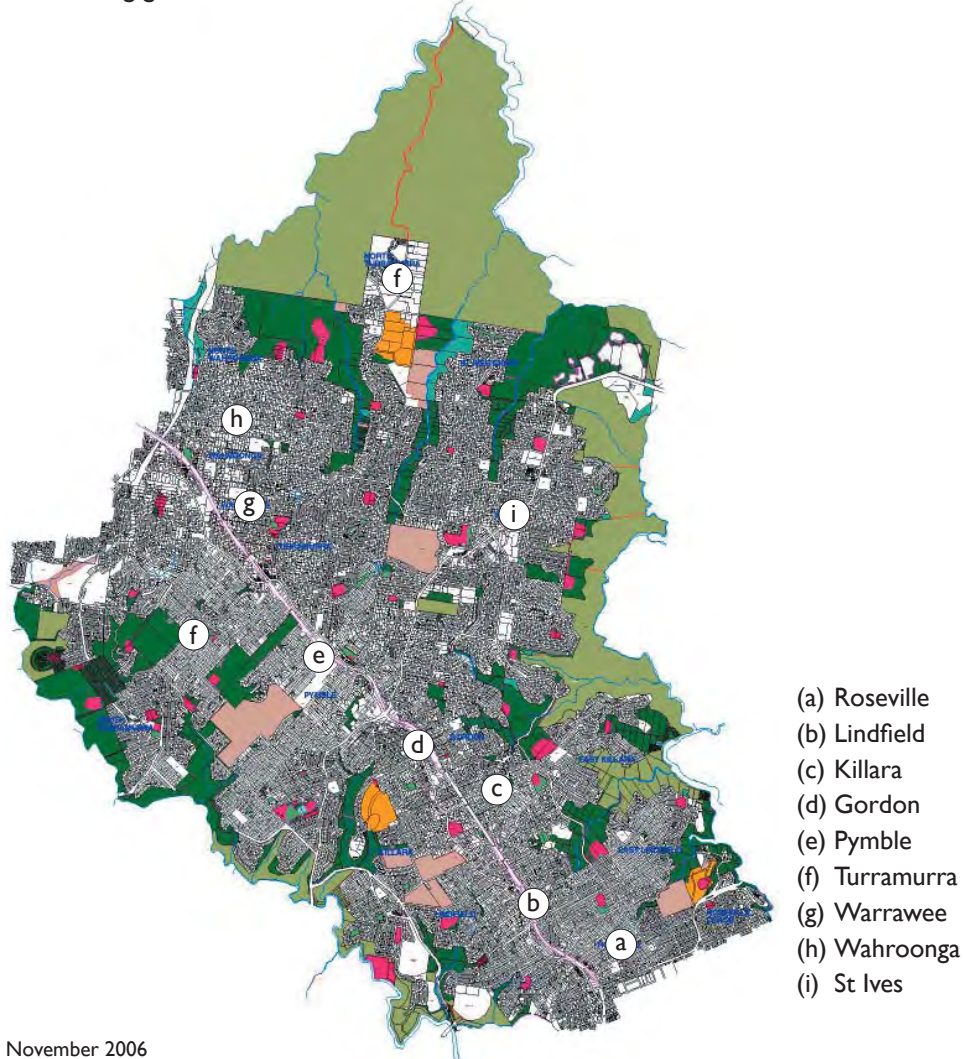
### I.1 Purpose of the Strategy

This Strategy has been prepared to establish a series of principles for acquisition of open space within Ku-ring-gai, from which open space provision opportunities and priorities for acquisition can be identified.

The 2005 Ku-ring-gai Open Space Strategy identified that the LGA has a relatively low provision of both local and district level open space. Further the distribution of these open spaces is moderately uneven with low per capita provision in some areas. The study identified that approximately 35% of households are beyond reasonable walking distance to any high quality neighbourhood open space. It also notes that it is predicted that the Ku-ring-gai population is set to increase by approximately 26,000 people over the next 20 years, which will place further demand on the open space system.

Given these shortfalls and the increased demands in provision of open space for the new population, Council has adopted the Section 94 Contributions Plan - Residential Development (2004-2009) with approximately \$29 million to be collected towards open space acquisitions and a further \$4.2 million for existing park embellishment. The earlier Section 94 Plan for Residential Development (2000-2003) had also identified \$9.2 million for acquisition of open space. The 2004-2009 Section 94 Plan identified that this Acquisition Strategy should be prepared as part of the acquisition program to identify priority sites for acquisition. This is to also ensure that the new open space is appropriately configured to meet the open space needs to new residents. The Ku-ring-gai Town Centres Planning Program (RDS Stage 2) will also result in significant population growth - a developer contributions strategy including S94 is also being prepared to cater for the increased demand for open space from the new development.

The Ku-ring-gai Local Government Area is shown below:



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## I.0 INTRODUCTION

### I.2 Strategy objectives

- To develop strategies that Council can utilise now and into the future to guide decision making in relation to acquisition of open space
- To acquire open space as efficiently as possible in terms of investment versus open space area, location and quality of space acquired
- To assess the existing open space system and identify implications of increased population
- To assess priorities based on new population and development trends identified in Council planning
- To develop a decision making rationale that will ensure that acquisition of open space will meet the needs of the new population without further exacerbating existing deficiencies in the open space system
- To identify priorities including 'hot spots' for acquisition of open space
- To ensure provision of quality open space - not solely focused on quantity
- To examine potential of other open space improvements such as enhancement of existing open space, as a mechanism to improve open space provision and quality
- To make recommendations regarding embellishment of open space in terms of facilities and recreation opportunities
- To be able to respond appropriately to opportunities to acquire specific sites for open space



## 2.0 KU-RING-GAI OPEN SPACE SYSTEM

### 2.1 Function and hierarchy

Open space systems provide for a range of functions – leisure and recreation, conservation and preservation, visual amenity, environmental education and appreciation, drainage, and screening/buffering.

Individual sites within the system may be of local or higher (from district to national) hierarchical significance.

Ku-ring-gai's open space system comprises parks, gardens, bushland, sports grounds and courts, road reserves, civic spaces and undeveloped land with a diverse range of functions and from local to regional hierarchical significance.

The regional facilities (including the National Parks, Ku-ring-gai Wildflower Gardens, St Ives Showground, and Ku-ring-gai Bicentennial Park) have large user catchments and attract visitors from throughout Ku-ring-gai and from other local government areas. The facilities are of superior quality, are unique within Ku-ring-gai, and serve a diversity of uses.

The district facilities (sportsgrounds and larger parks such as Wahroonga Park and Echo Point Park) may be smaller than regional facilities but contain a greater diversity of recreational and/or sporting opportunities than do local parks. Users may walk, cycle or drive up to 7 minutes to access these facilities.

The local or neighbourhood facilities are smaller in size with a primary function to provide for passive recreation. They are normally accessed by foot and are typically distributed within 500 metres walking distance of most residents. They may have multiple functions including providing a break to the rigid form of the urban landscape, habitat for wildlife and accessible recreation areas for local residents.

### 2.2 Quantity

The Ku-ring-gai local government area has nearly 4,300ha of open space, comprising the following:

Type	Quantity/facilities
Natural areas	<ul style="list-style-type: none"> <li>Nearly 4,000 hectares of bushland - with 2,800 hectares within the three local national parks and 1,200 hectares in 120 Council-managed reserves</li> <li>75 kilometres of service trails and 100's of kilometres of walking tracks</li> </ul>
Parks	<ul style="list-style-type: none"> <li>53 ha of parkland</li> <li>334 park and open space areas</li> <li>97 playgrounds</li> <li>One skateboard facility, and 5 basketball half-courts</li> <li>Several off-road junior cycle tracks</li> </ul>
Sports	<ul style="list-style-type: none"> <li>125 ha of sportsground</li> <li>42 sportsground complexes (with 52 sport fields and 29 netball courts)</li> <li>71 tennis courts (at 20 centres)</li> <li>69 ha Gordon and Turramurra golf courses</li> </ul>

Figure 1 Existing Open Space Composition on the following page identifies the type and distribution of open spaces within the Ku-ring-gai LGA.

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## 2.0 KU-RING-GAI OPEN SPACE SYSTEM

### 2.2 Quantity (continued)

Council-managed open space comprises 334 parks totalling around 1,480 hectares. The majority (80%) of this open space is 'bushland'. The next major category is 'sports fields' (6.6%) followed by 'public golf course' (4.9%), 'parkland' (4.8%) and 'St Ives Showground' (1.7%). The remaining areas are comprised of tennis and netball courts, semi-private sports facilities, the West Pymble Swimming Pool and the Ku-ring-gai Wildflower Garden.

The quantity of different types of open space in Ku-ring-gai was addressed in the 2005 Open Space Strategy which found that:

- The LGA has a generous supply of environmentally significant open space,
- The provision of sportsgrounds (at 1.16 ha/thousand people) is comparative to the traditional standard (of 1.21 ha/thousand),
- Despite this, sports club demands and current levels of use (with most grounds used at full capacity for at least some of the year) indicate that there are insufficient facilities to meet present and anticipated future needs, and
- The provision of (non-sport) parks (at 0.49 ha/thousand people) is low according to the traditional standard (of 1.62 ha/thousand).

### 2.3 Quality, diversity and usability

To effectively provide for quality recreation experiences, there must not only be a sufficient quantity of different types of open space, but the spaces must also be of sufficient quality, size and configuration to meet the needs of current and potential users.

The critical quality criteria vary for different types of open space but generally include size and shape, terrain, linkage potential and access, appropriate facilities, relationship to surrounding land uses and the presence/absence of attractive natural features and/or design details.

Parks, for example, should provide somewhere to sit in comfort, areas for socialising, quiet spaces, places for children to play safely (and big enough to 'burn off energy') and some contact with the natural world.

Parks that combine a variety of features and uses – contact with nature, pleasant social settings, children's play, cultural interest, varied topography – are usually those that are most valued and most used.

Sportsgrounds should meet the specific sports needs (for training and playing) of user clubs and associations – including quality playing surfaces, goal posts, nets and other equipment, lighting, amenities, carparking, signage, shade and spectator seating.

Sportsgrounds, desirably, will also be available to (and attractive to) residents in surrounding precincts (for unstructured recreation activities) when not being used for formal sports activities.

For bushland areas, quality is a function of ecological, visual and other natural values and the condition and suitability of any recreation access facilities (tracks, signage, interpretive materials and picnic/rest facilities) provided.

Open space quality and diversity were also addressed in the 2005 Open Space Strategy which found:

- A relatively high proportion (30%) of local parks are less than 0.2 hectares – a size which does not facilitate the provision of a diversity of 'walk to' recreation opportunities,

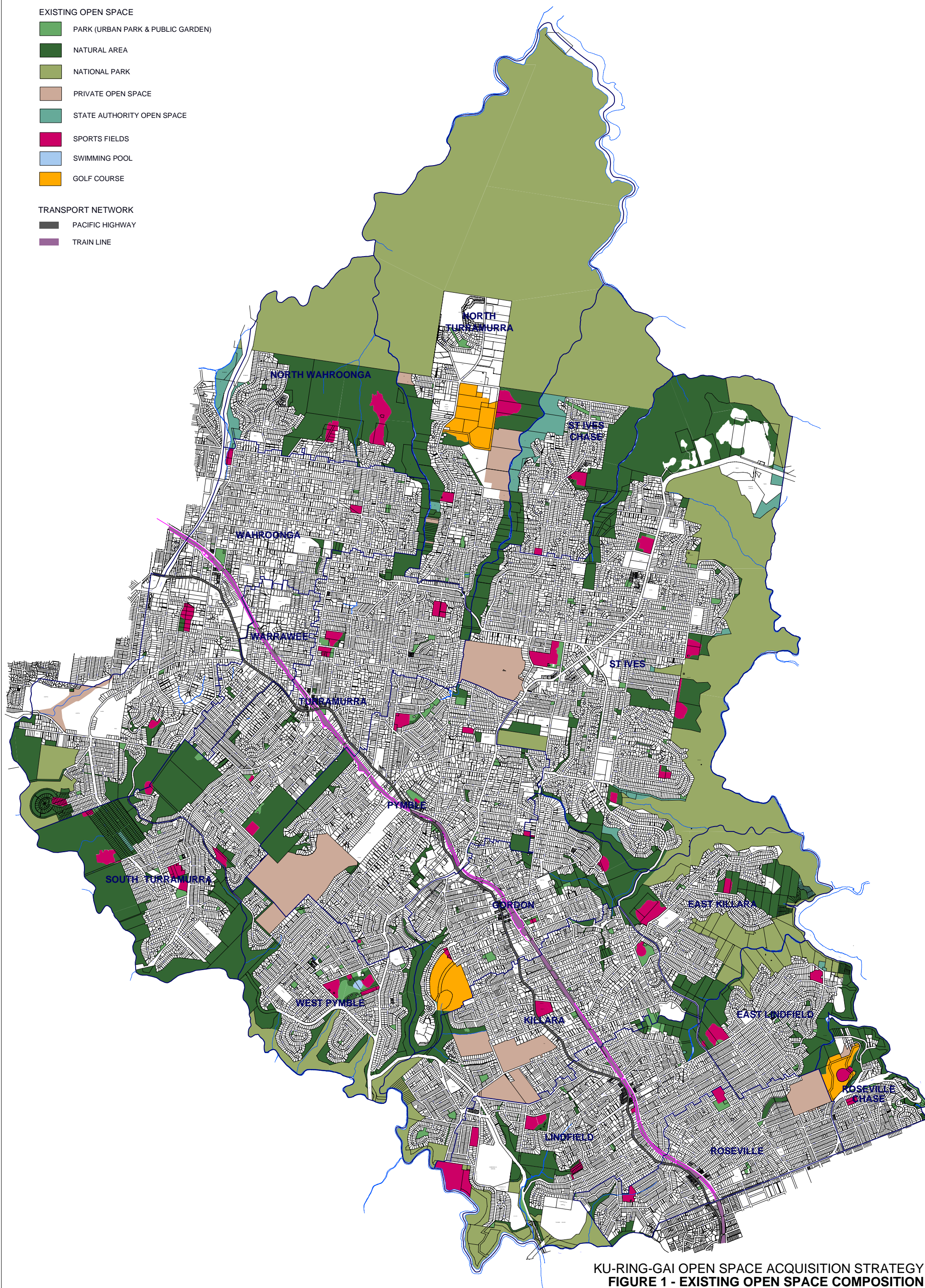


# EXISTING OPEN SPACE

- PARK (URBAN PARK & PUBLIC GARDEN)
- NATURAL AREA
- NATIONAL PARK
- PRIVATE OPEN SPACE
- STATE AUTHORITY OPEN SPACE
- SPORTS FIELDS
- SWIMMING POOL
- GOLF COURSE

## TRANSPORT NETWORK

- PACIFIC HIGHWAY
- TRAIN LINE



KU-RING-GAI OPEN SPACE ACQUISITION STRATEGY  
FIGURE 1 - EXISTING OPEN SPACE COMPOSITION

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## 2.0 KU-RING-GAI OPEN SPACE SYSTEM

- A need for a wider diversity of playgrounds (to include bike tracks, free play areas and access to natural areas - where available - and age appropriate play equipment), large group/family picnic opportunities (shelters, tables, seating) in major parks,
- A need to ensure designated play areas are large enough to incorporate both structured play equipment and 'free play' space,
- A need to provide more 'supportive environments' - visually appealing, accessible and safe spaces that encourage and facilitate physical activity (including 'incidental' activity) - through identifying opportunities to extend linkages (via the use of linear parks, drainage reserves and local links and the development of 'parkstreets',
- Further potential for integrating recreation areas (play areas, picnic facilities, dog off-leash areas) and informal sports facilities with formal sports facilities,
- A need for more district and local cycle and walking routes, and
- A need for more youth opportunities (skate facilities, cycle tracks, more adventurous playgrounds, indoor/outdoor sport/swimming opportunities and 'youth friendly' public places.
- Facilities are important in attracting park use - people might be within 500m to a park but if there is a park within 1500m that has far better facilities users will travel the extra distance.

The Strategy also referenced an April 2002 capital works report to Council, that identified that sports fields were 'poorly constructed' and 'facing significant pressures' and the majority of fields 'do not perform at a level consistent with their need and increasing use is accelerating their decline'. As well, support facilities (lighting, fences, amenity blocks and irrigation) 'are significantly run down or do not address safety issues or needs'. However, significant works have been implemented including the Capital Works Program, and District Parks Masterplanning Process.

## 2.4 Distribution and Equity

The location of open space is also important. Desirably, open space will be distributed to provide equity of access to open space opportunities for all residents.

With respect to this, however, the Open Space Strategy identified a range of access inequities, including the following:

- A moderately uneven distribution of parks in the LGA – with relatively low per capita provision in Lindfield, Gordon and Roseville (as illustrated in the table below),

Sub-Area Distribution of Local and District Parks

District / suburb	Ha	Ha/1000 people	Square metre per capita
Roseville	4.70	0.48	4.79
Lindfield	4.47	0.38	3.77
Killara	8.59	0.70	7.01
Gordon	2.90	0.44	4.37
St Ives	10.62	0.56	5.58
Pymble	10.93	0.75	7.52
Turramurra/Warrawee	12.93	0.63	6.26
Wahroonga	62.65	0.59	5.86
TOTAL	62.65	0.58	5.82

Source: Recreation / Open Space Component - Ku-ring-gai S94 Plan 2004-2009  
Recreation Planning Associates, July 2004



## 2.0 KU-RING-GAI OPEN SPACE SYSTEM

### 2.4 Distribution and Equity (continued)

- Longer than reasonable walking distances (ie more than 500 metres) to local parks for more than 30% of residences within the LGA (as noted in the table below),

Urban Park 'Catchment' Zones, Ku-ring-gai, 2000

<b>Suburb</b>	<b>Residential Properties within Sub-area</b>	<b>Residential Properties within 400 Metres</b>	<b>% properties within park service zones</b>
Roseville	3,012	1,537	51.03
Lindfield	3,931	2,732	69.50
Killara	4,042	2,857	70.68
Gordon	2,106	774	36.75
St Ives	5,960	3,846	64.53
Pymble	4,917	3,670	74.64
Turramurra/Warrawee	6,571	4,717	71.79
Wahroonga	4,378	2,821	64.44
<b>TOTAL</b>	<b>34,917</b>	<b>22,954</b>	<b>65.74</b>

- Longer than reasonable walking distances to playgrounds in Gordon, Lindfield and Roseville and also in some areas of St Ives, Pymble and Wahroonga.

The Strategy found that, due to these distributional inequities and the limited size of many parks (as noted in section 2.3, above), a significant proportion of the population (35%) was not adequately serviced by high quality neighbourhood open space,

In a relatively large LGA such as Ku-ring-gai – where travel distances are quite significant – the unequal distribution of park open space is an important issue. This is particularly so, given the large number of physical access barriers including major roads (Pacific Highway, Mona Vale Road, Eastern Arterial Road and others) and the north shore railway line.

The relatively high proportion of households located outside park service zones (together with the large proportion within close proximity to only small parks or parks requiring further development) is a significant equity issue.

Additionally, because this distribution pattern encourages more people to drive to access 'local' open space, there is a greater likelihood of parking and traffic problems in some areas.

Opportunities to embellish the open space network more equitably should therefore be pursued. In particular, there is a need to address the existing relatively low quantities of parkland in Lindfield, Roseville and Gordon and, as the Residential Development Strategy is implemented, the likely reducing per capita quantities of parkland in the railway corridor and community shopping centre precincts.

### 2.5 Accessibility

Open space distribution (discussed in section 2.4, above) is a key measure of open space accessibility – in terms of the walking and/or driving distances between residential areas and parks and open space areas.

Other aspects of accessibility include park visibility (the extent to which parks are visible from streets and pedestrian routes), availability (eg not fenced), parking, pathways and cycle routes and 'access for all' design.

## 2.0 KU-RING-GAI OPEN SPACE SYSTEM

With respect to this, the Open Space Strategy argued the importance of developing 'supportive environments' or 'urban and natural places that encourage and facilitate physical activity – particularly incidental physical activity through active transport - because they are accessible, safe and visually appealing' .

As detailed in the Strategy, supportive environments encompass the following specific elements:

- Attractive and safe open spaces and public domains – with good lighting, seating, shade and areas for play,
- Well designed and landscaped streets – including safe pedestrian facilities,
- Well lit, level and shaded footpaths that provide linkages to parks and other places of interest,
- Walking and cycle paths – with links to schools, shops, places of interest and public transport,
- Availability of interesting facilities within walking and cycling distance, and
- 'Access for all' infrastructure (appropriately graded pathways, kerb ramps, hand rails etc).

The accessibility of the open space system refers to the ability or ease of which, open space can be accessed.

For a local park, the walking distance between it and potential visitors is a widely accepted measure of its physical accessibility – with around 500 metres being the commonly accepted maximum reasonable walking distance to such parks.

Figure 2 (Existing Open Space Catchments), on the following page, depicts the physical accessibility of Ku-ring-gai's parks through the use of 'accessibility circles'. The circles comprise a 400-metre buffer drawn around all of Ku-ring-gai's higher quality local and district scale parks (with 'higher quality' defined as parks of a minimum area of 3,000-metres square and with at least some visitor facilities ie. seating, shade, playground, picnic facilities etc). The maximum straight-line distance to a park within the circle is 400 metres, but many potential users within these circles will have to travel up to 500 metres or more because of street layouts, cul-de-sacs etc.

This accessibility analysis – when undertaken in 2003 in conjunction with preparation of the Ku-ring-gai Open Space Strategy - established that approximately 35% of the population did not have reasonable access to open space. That is, 35% of the population lived in an area not enclosed by an 'accessibility circle' and, by definition, were not within a 500-metre walk of at least one higher quality park.

Areas with the greatest lack of provision included Wahroonga, some areas of Gordon and Roseville.

There are also barriers to park access (such as roads) that may, in some instances, cut across 'accessibility circles' (and, in fact, remove part of a circle from what initially was deemed to be a 'reasonable access zone').

The most significant barriers in Kuring-gai are the Pacific Highway, the rail corridor and the topography (valleys, bushland, creeks etc). The public domain character and intensity of traffic on the Pacific Highway, for example, currently deters pedestrians (especially those with young children) from using this as a route to open space.

The railway connections to Ku-ring-gai are an important component of the transport system and are heavily used by commuters. Stations are well situated across the corridor however the physical nature of the corridor means that access points across do not necessarily relate to desirable pedestrian routes to open space.

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## 2.0 KU-RING-GAI OPEN SPACE SYSTEM

### 2.6 Connectivity

Connectivity of open space is concerned with the connections between open spaces, including the relationships between open space areas.

There are several areas where park areas adjoin sports fields. This is an important component of the open space system as adjoining park areas offer the potential for use as passive and active recreation, which limits the intensity of use on the actual playing fields.

Other existing connections include those between natural areas and parks. This provides potential for a diversity of recreation experiences, with natural areas offering bushwalks or more nature based recreation and parks offering more opportunity for active recreation and formalised play facilities.

The issues of connectivity and linkages were addressed in the 2005 Open Space Strategy which found that:

- Linkages provide corridors of open space that link parks, natural areas and other sites of interest into a greater whole. This improves access to a range of sites, enhances opportunities for bushland based recreation (including walking, nature appreciation and mountain bike riding), and provides movement corridors for wildlife.

### 2.7 Environment / landscape

Figure 1 indicates that Ku-ring-gai has a generous supply of open space, however these are predominantly national park or natural areas, with a total area of almost 4,000 hectares of bushland.

The provision of formal parks however was identified in the 2005 Open Space Strategy as being low (0.49 hectares per thousand people) as compared to the traditional standard (1.62 hectares per thousand people) with a total provision of approximately 53 hectares.

The provision of natural areas and national park is an important resource for the community and enables different recreational experiences than provided for in more traditional park and sports field environments. These bushland areas are also an important component of the character of Ku-ring-gai establishing the LGA as an extensively 'green' area.

Environmental and bushland values were addressed in the 2005 Open Space Strategy which found:

- Strong community support for protecting and enhancing the 'green' environment,
- Council concern with bushland fragmentation (and its impact in reducing wildlife movement opportunities and bio-diversity) and a current focus on canopy protection/enhancement and the strategic acquisition of open space 'bio-linkages' to protect critical natural values – and to improve linkages between natural areas (and between natural areas and other types of open space).

### 2.8 Cultural heritage

The heritage items within Ku-ring-gai are mainly focused on the architectural heritage of the area. The historic formal parks and gardens are however an integral part of the LGA's open space heritage and provide unique park landscapes that reflect past trends in open space layout and planting. Some of the older parks may be limited in the diversity of recreation opportunities provided, generally providing open grassed areas with formal tree planting.

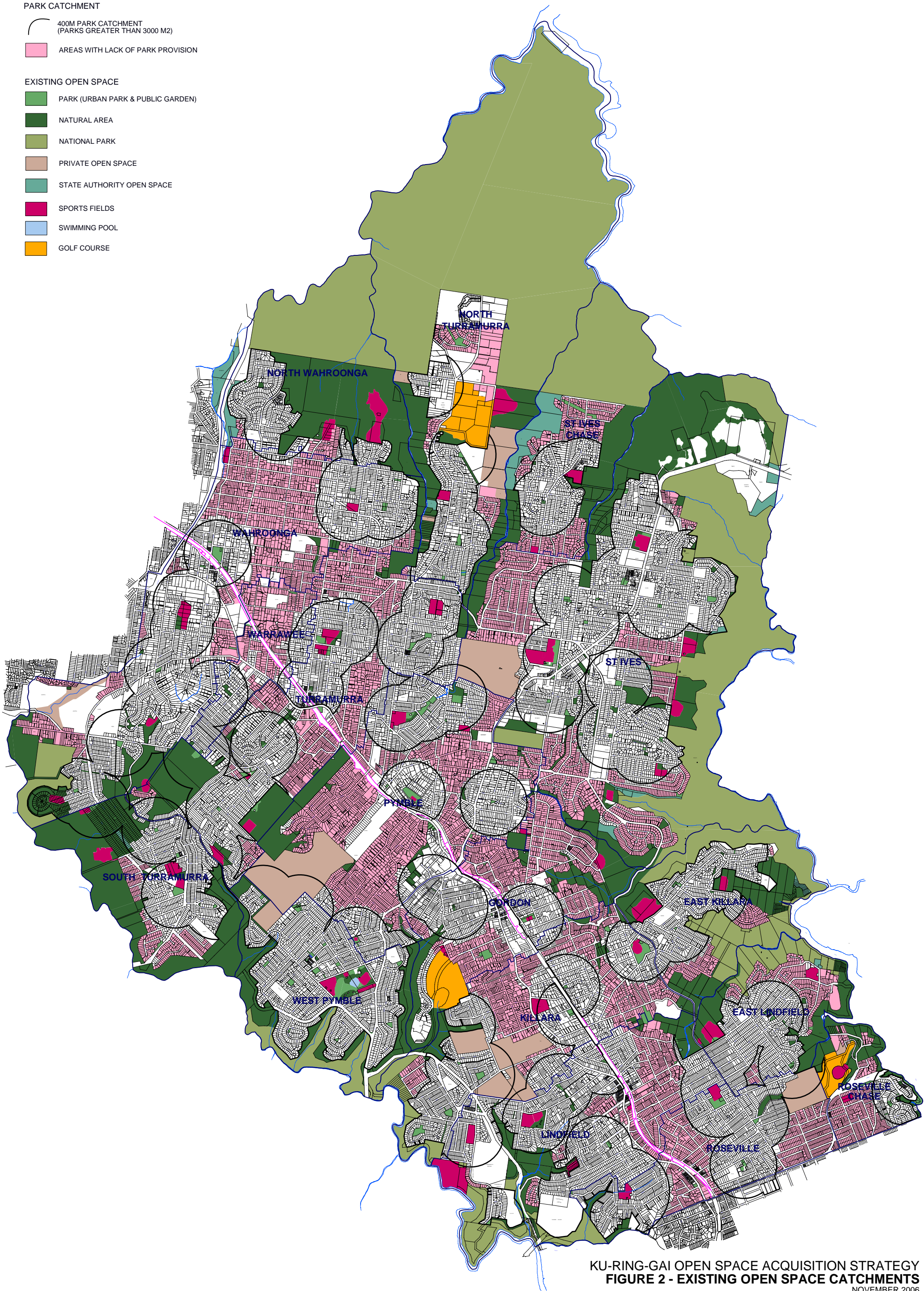


PARK CATCHMENT

- 400M PARK CATCHMENT  
(PARKS GREATER THAN 3000 M2)
- AREAS WITH LACK OF PARK PROVISION

EXISTING OPEN SPACE

- PARK (URBAN PARK & PUBLIC GARDEN)
- NATURAL AREA
- NATIONAL PARK
- PRIVATE OPEN SPACE
- STATE AUTHORITY OPEN SPACE
- SPORTS FIELDS
- SWIMMING POOL
- GOLF COURSE



KU-RING-GAI OPEN SPACE ACQUISITION STRATEGY  
FIGURE 2 - EXISTING OPEN SPACE CATCHMENTS  
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## 2.0 KU-RING-GAI OPEN SPACE SYSTEM

### 2.9 Summary - Conclusions and implications for the Acquisitions Strategy

As identified, the key values and attributes of open space within Ku-ring-gai include function, quantity, quality, diversity, distribution and equity, access and connectivity, biodiversity and heritage.

However, as also identified, previous studies (including Council's 2005 Open Space Strategy) have found that, with respect to these values and attributes, Ku-ring-gai's open space resources are of variable quality and comprehensiveness.

For example, Ku-ring-gai has a range of excellent facilities and programs (including the National Parks, Ku-ring-gai Bicentennial Park, St Ives Village Green, Echo Point Park and Ku-ring-gai Wildflower Gardens).

However, there are a range of needs and deficiencies – including:

- Insufficient neighbourhood parks in some precincts (particularly in Lindfield, Gordon and Roseville),
- The small size of many parks,
- The under-development of many parks,
- An inadequate diversity of recreation activity opportunity,
- Insufficient district sports facilities,
- Linkages, connections and environments supportive of incidental physical activity,
- More cycle and walking routes, and
- More widely distributed 'access for all' infrastructure.

Previously identified opportunities for improving open space and recreation resources included the strategic enlargement of some parks, the further embellishment of both neighbourhood and district parks, additional and higher quality sports facilities (indoor and outdoor), modern swimming opportunities, and a greater diversification of 'unstructured' recreation opportunities within parks.

The major implication for the Acquisitions Strategy is the clear finding – of these previous studies - that Council's local and district parks are not (in terms of both quantity and suitability) fully meeting the recreation needs of existing populations and do not have the capacity to absorb the recreation needs and demands of new populations.

As such, the open space and recreation needs of the new populations will have to be fully met from the acquisitions and/or embellishments funded from the S94 contributions generated by future residential developments.

Further more, where consistent with S94 nexus requirements, the Acquisitions Strategy should seek to address existing deficiencies (including the small size of parks, connectivity and inequitable distribution) through strategic open space acquisitions and/or embellishments.

### ***3.0 Development in Ku-ring-gai***

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### 3.0 DEVELOPMENT IN KU-RING-GAI

#### 3.1 Population growth

It is anticipated that the population of Ku-ring-gai will increase from an estimated resident population of 109,824 in 2004 to 114,823 in 2009, with a projected population increase of around 26,000 expected by 2026. This anticipated population growth will create the need for additional and improved facilities and services as the existing provision will not be able to successfully meet increased demand.

Existing open space provision within the LGA is low, with a high proportion of the population not adequately serviced by high quality neighbourhood open space. Given this already low availability of parkland open space, the increased population will place intense pressure on an already under served system. The development of multi-residential housing across the LGA may also create population shifts with potential for an increase in the 'young adult' (18-29 years) population and retention in the LGA of a larger 'empty nester' population (45-65 years) which will establish a variety of recreation needs and may signal an increase in sport / recreation levels.

Future development of medium to high density housing will generally be located within the rail corridor or to St Ives town centre. The nature of this housing will provide a marked increase in the demand for open space, as the nature of these developments will generally provide little private outdoor or garden spaces.

#### **Recent Trends**

Ku-ring-gai's population grew by 2,314 to 101,346 between 1996 and 2001 – with an average annual growth rate of 0.5% compared to Sydney's 1.3%. This reversed a population decline in the previous two inter-censal periods (down from 100,089 to 99,032 between 1986 and 1996).

The population growth has been accompanied by the following changes:

- more people born overseas
- a higher median age
- higher numbers of children, mature adults (55-74 years) and 'older persons' (75+ years)
- lower numbers of youth (12-17 years) and young adults (18-24 years)
- an increased proportion of 'couple families with children' (up from 47.1% of households in 1996 to 48.5% in 2001)
- an 11% decrease in the number of houses being rented (down from 11.8% to 9% of households)

The ageing of the population, in particular, has significant implications for open space needs and demands.

Ku-ring-gai has a higher than average proportion of older people over 55 years (nearly 27,000 people or 26.4% of the population in 2001 - compared to 20.4% for Sydney) and the proportion of older people is increasing.

The proportion of those aged 55 – 74 years and above rose slightly between 1996 and 2001. This trend is expected to continue into the future in line with metropolitan-wide trends.

An aging population is normally associated with a trend to lower participation rates across most open space-based activities (but there are specific exceptions to this - including walking for pleasure, golf, swimming and tennis - which are all significant users of parks and open space areas)

It is possible also that the participation rates of older people in the future may not decline in the same way as they have in the past due to increased health awareness, changing expectations and new attitudes towards 'old age'.

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## 3.0 DEVELOPMENT IN KU-RING-GAI

### **Future Population**

Ku-ring-gai is forecast to experience substantial population growth over the next 20 years (with 26,000 new residents by 2026) with implementation of the RDS. It is difficult to predict the characteristics of the incoming population in those areas where residential development occurs. This is due to uncertainty regarding the types of future development as well as a lack of information on the characteristics of populations attracted to medium density developments.

Early literature on urban consolidation suggested that residents in such developments were likely to be young (with a high proportion of 20-29 year olds), single or childless couples, renting rather than purchasing and with a high level of access to vehicles.

More recent studies have confirmed these earlier findings. Planning NSW recently undertook a post-occupancy survey in the Ultimo-Pyrmont area (which had undergone substantial high rise residential development in the previous ten years) to determine the characteristics of incoming residents. The survey found that new residents were generally relatively young (with over half the sample aged 20-29 years and very few children and elderly people) and that 'couples without children', 'group households' and 'singles' were the most common household types.

Another recent study, of development in all suburbs within a 10 km ring of the Sydney CBD, identified that the key participants in the area's 're-urbanisation' were 25-34 year olds who had deferred marriage and home ownership, and had relatively high disposable incomes.

If these trends are replicated in Ku-ring-gai's RDS areas, the LGA will see increasing proportions of young adults, more couples renting, fewer older people and more 0-4 year old children.

These changes could impact on the overall population structure of the LGA – quickening recent reversals in the decline of children and young adults and off-setting the 'ageing' of the population.

### **Empty Nesters**

Empty nesters could also be a significant proportion of the new RDS area population. 'Empty nester' households are usually defined as those where the children have left home and the parents are still working. The households often 'down size' from family homes to smaller homes, villas or units when the children leave. The age range of the remaining adults is generally between around 45 and 60 to 65 years.

Some recent North American research (Mintel International, July 2005, Leisure Activities of Empty Nesters) sought to identify the leisure participation patterns of 'empty nesters'. Some of the key findings included the following:

- A significant increase in mid-week leisure time when children leave home
- An increased preference for spending leisure time at home
- A greater likelihood (than other age groups) to 'clean the house for enjoyment'
- An increased use of home-based entertainment media – particularly television, listening to music and reading newspapers
- Lower than average use of the internet (due to lack of comfort with technology)
- Increased participation in hobbies, arts and crafts and indoor games
- A general decline in 'nightlife' activities – except for dining out and attendance at some live shows
- A generally high level of involvement in away-from-home physical activities, but in 'less strenuous' options
- Keeping fit is a priority but at low levels of intensity and through a narrowing range of activities. For example, there is a much reduced participation in team sports but a parallel increase in lower impact activities such as walking, cycling, swimming, yoga and some gym activities



### 3.0 DEVELOPMENT IN KU-RING-GAI

These findings are echoed in the Australian Sports Commission's recent annual surveys of participation in exercise, recreation and sport. 'Empty nester' age group (45-54 and 55-64 years) participation rates for a range of activities relevant to this Open Space Acquisitions Strategy are summarised in the table below:

Activity	Participation Rates (%)		
	45-54 years	55-64 years	Total
Walking	46.9	49.7	37.9
Swimming	15.9	11.4	15.3
Aerobics/fitness	14.8	12.7	16.0
Cycling	9.9	6.4	9.4
Golf	9.8	11.8	8.2
Bushwalking	9.0	6.5	5.8
Tennis	8.5	7.4	9.0
Running	5.5	2.4	7.6
Yoga	3.7	2.8	3.1
Aquarobics	1.2	1.5	1.1

Source: *Participation in Exercise, Recreation and Sport*  
Australian Sports Commission, 2003

The research shows that while 'empty nesters' gain a new appreciation of home-based activities, they are also high (or at least higher than average) participants in many 'away from home' activities – including walking, bush walking, golf, aquarobics and yoga. The younger (ie 45-54 year) empty nesters are also higher than average participants in swimming and cycling.

These findings imply that, where 'empty nesters' are a significant proportion of the new residents in the RDS growth areas, there will be a significant demand for close-to-home physical recreation opportunities – particularly connections and facilities for walking, cycling and bushwalking, as well as facilities for swimming, aerobics and some non-team sports (particularly golf and tennis).

#### Conclusions on population growth and change

Based on these trends and the characteristics of new residential developments in Ku-ring-gai, Council's S94 Contributions Plan 2004-2009 concluded that the future population was likely to exhibit the following characteristics :

- a growing population of children and young people (0-15)
- a growing population aged 40 and over
- a significant proportion of older people who are moving from larger family homes to medium density housing
- an influx of new families taking the place of these people in larger family homes and replacing older dwellings with new family homes
- the possibility of a reversal in the decline of young people aged 18-24 and 25-29 with the development of multi unit housing around railway stations; and
- a continuing higher than average proportion of people with higher than average income levels and working in professional or managerial positions.

These new residents, especially younger children and families, and young adults, are likely to change the balance of demand for open space resources within Ku-ring-gai. There are likely to be, for example, significant increases in demands for children's play areas and for formal sports facilities.

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### 3.0 DEVELOPMENT IN KU-RING-GAI

#### 3.2 Changes in occupancy rates and residential densities

Currently, Ku-ring-gai has relatively low housing densities - with its large residential allotments and high proportion of people living in separate houses (85% of the population compared to 63% for Sydney in 2001).

The RDS, however, will change this substantially. It aims to increase housing choice, particularly to ensure an appropriate housing stock for the aged population, singles and young couples who wish to move back to the area.

The RDS recommends a number of housing types as suitable for the area and capable of increasing housing choice. These include multi-unit housing within single house forms, shop-top housing in business centres and nominated sites for multi-story apartment buildings close to rail stations and St Ives centre.

Accordingly, a large proportion of the anticipated incoming population (of 26,000 people) will occupy dwellings other than separate houses. Densities will increase substantially along the railway corridor and the St Ives town centre and several neighbourhood shopping centres.

Changes in occupancy ratios and densities over recent years have already had impacts on open space use and adequacy. As identified in the 2005 Open Space Strategy, the changes are increasing park catchment populations in some areas (ie in areas of medium density housing) while in other areas (ie areas of single dwelling housing away from commercial centres) the declining occupancy rates are having the opposite effect.

Changes in housing occupancy ratios and densities can cause change in the size and character of catchment populations for different parks. These changes can be quite significant. In traditional family housing areas, for example, occupancies have decreased from 3.30 persons per dwelling in 1981 to 3.07 persons per dwelling in 2001. With an average of around 500 dwellings within the catchment area of local parks (ie within about 500 metre walking distance) this trend implies an average decline of 115 potential park users (from 1,650 to 1,535) for each local park.

Occupancy rates for 'other dwelling types' have, however, been increasing – from 1.56 persons per dwelling in 1981 to 1.83 persons in 2001. These dwellings are concentrated along the railway/Pacific Highway corridor and adjacent to community shopping centres.

Roseville had the highest proportion of 'other dwellings' in 1996 – 732 such dwellings or 22% of the suburb's total housing stock. In Roseville, therefore, this trend implies an increase, between 1981 and 1996, of 200 potential park users (from 1,142 to 1,340) for the nearby local parks.

These trends will accelerate with implementation of the RDS – with residential development impacts on the size and characteristics of park catchment populations most pronounced within the RDS growth areas. It is unlikely that parks in these areas – as explained in section 2 above - can accommodate the additional demands resulting from the new medium and high-density housing developments.

The RDS forecast population increase of 26,000 people would normally generate a requirement of around 20-25 hectares of non-sport open space distributed (for accessibility reasons) between 15-20 separate parks.

Acquiring anywhere near this amount of open space is not an affordable option. Alternative strategies include the further embellishment of existing parks – to enhance their capacity to absorb additional use from new residents. However, current open space distribution in Ku-ring-gai is such that the RDS areas are not well served by local parks. So these areas will need to be a particular focus for the acquisitions program.

### 3.0 DEVELOPMENT IN KU-RING-GAI

#### 3.3 Section 94 Plan 2004-2009 Residential Development

Section 94 of the Environment Planning and Assessment Act enables Councils to place a charge or levy on new development for the purpose of providing additional facilities and services which will be needed as a result of that new development. These additional requirements will include recreation facilities and open space. The proposed facilities in regards to parklands as identified by the Plan for Ku-ring-gai includes acquisition and embellishment of open space.

The Section 94 Plan, states that

*Land for parkland is to be acquired to satisfy the reasonable parkland open space requirements of the projected new population.*

The Plan acknowledges that given the current relatively low provision of open space that a reasonable requirement for new open space will be that of the existing per capita provision (0.63 hectares per thousand people). However due to the high costs involved in acquisition, the requirement for parkland has been differentiated by a weighting factor. This weighting factor has been calculated by adjusting the proposed acquisitions at a precinct / suburb level with the benchmark of 0.63 hectares per thousand people. The weighting has also considered the differences across the LGA suburbs in both the existing quantity and accessibility of open space.

The rationale behind the weighting means that areas with lower than average quantities of open space are discounted less as these areas have less ability to absorb the needs of new populations through embellishment of open space. Any greater discounting of these areas would therefore have a greater negative impact on open space needs of the new populations. The Plan also emphasises that embellishment of open space is an important component of catering for the needs of new populations, especially given the high cost of acquisitions in the area. This aims to increase the ability of existing open spaces to 'work harder' rather than relying solely on acquisitions.

The weighted acquisition requirements of the Section 94 Plan are outlined below.

<b>Precinct</b>	<b>Population Increase (2004-2009)</b>	<b>Land Requirement Per capita (m2)</b>	<b>Land Requirement Total (m2)</b>
Roseville	277	4.37	1,210.49
Lindfield	910	5.82	5,296.20
Killara	575	4.37	2,512.75
Gordon	618	5.82	3,596.76
St Ives	541	4.37	2,364.17
Pymble	783	4.37	3,421.71
Turramurra / Warrawee	667	2.91	1,940.97
Wahroonga	627	4.37	2,739.99
<b>Total</b>	<b>4,998</b>		<b>23,083.04</b>

### 3.0 DEVELOPMENT IN KU-RING-GAI

#### 3.4 Land values

The value of land in the Ku-ring-gai area needs to be considered when reviewing potential acquisition priorities. This is important in ensuring that any land acquired is providing both for the needs of the new population but is also cost efficient in terms of the open space gain provided.

The following land values have been identified through a review of recent sales in individual suburbs, focusing on locations that were not adequately served by existing parks. It should be noted the land values differ significantly not only on a suburb basis, but also by the zoning of the property - refer to Figure 3 LGA Zoning and Open Space Catchments which was utilised in preparation of the values information.

<b>Suburb</b>	<b>Rate Per Square Metre of Improved Site Area</b>
North Wahroonga	\$498 to \$1,200/m2
St Ives	\$520 to \$1,600/m2
North Turramurra	\$535 to \$1,137/m2
South Turramurra	\$543 to \$951/m2
East Killara	\$663 to \$1,551/m2
Turramurra	\$724 to \$1,100/m2
St Ives Chase	\$736 to \$1,300/m2
Killara	\$850 to \$1,350/m2
Pymble	\$856 to \$1,158/m2
East Lindfield	\$890 to \$1,350/m2
Roseville Chase	\$900 to \$1,700/m2
Wahroonga	\$1,000 to \$1,820/m2
Gordon	\$1,208 to \$2,315/m2
Lindfield	\$1,250 to \$2,090/m2
Warrawee	\$1,300 to \$2,000/m2
Roseville	\$1,400 to \$2,200/m2



# RESIDENTIAL

- RESIDENTIAL 2a
- RESIDENTIAL 2b
- RESIDENTIAL 2c
- RESIDENTIAL 2c1
- RESIDENTIAL 2c2
- RESIDENTIAL 2d3
- RESIDENTIAL 2d
- RESIDENTIAL 2e
- RESIDENTIAL 2f
- RESIDENTIAL 2g
- RESIDENTIAL 2h
- INTERIM DEVELOPMENT

# SPECIAL USES

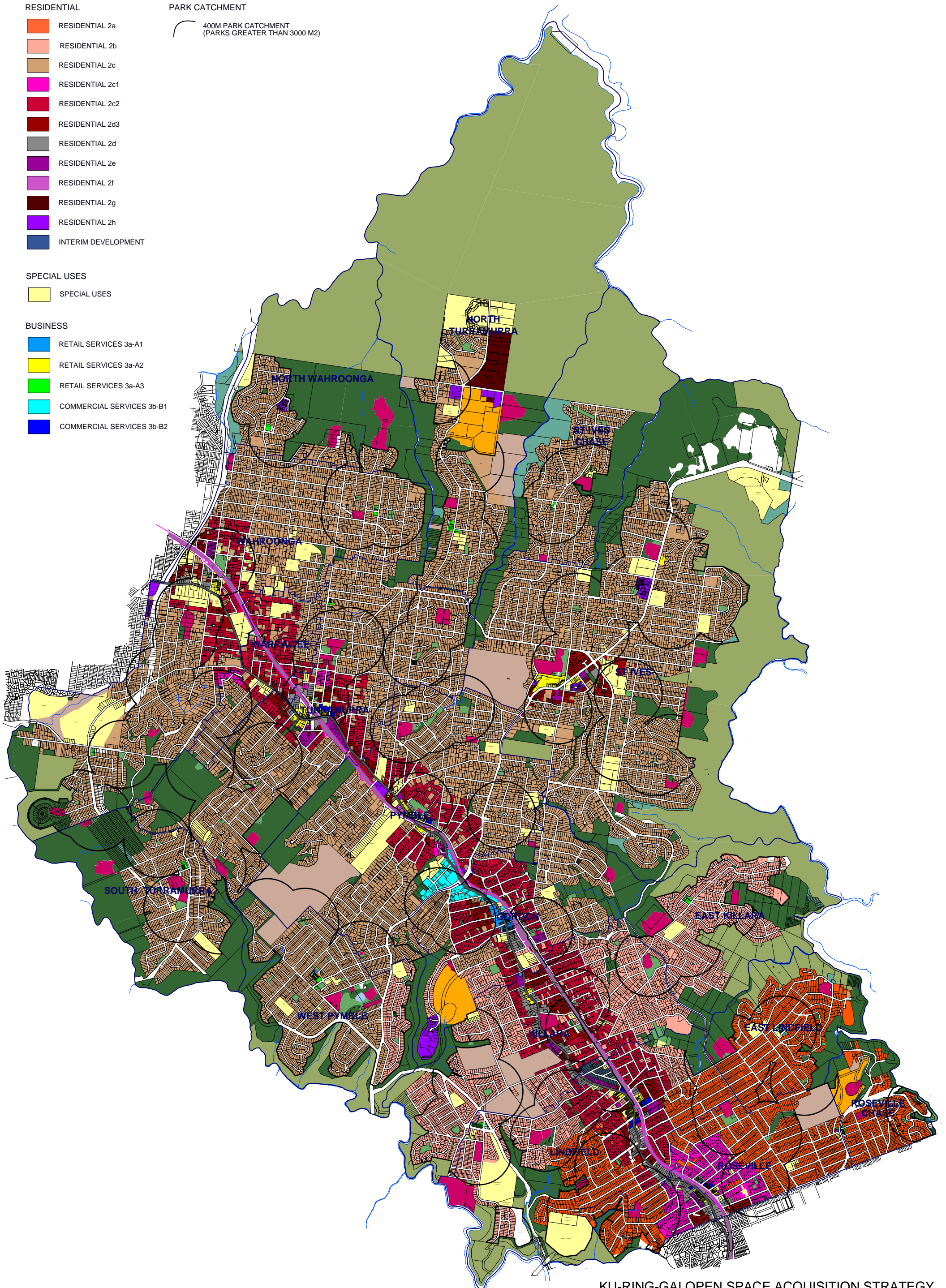
- SPECIAL USES

# BUSINESS

- RETAIL SERVICES 3a-A1
- RETAIL SERVICES 3a-A2
- RETAIL SERVICES 3a-A3
- COMMERCIAL SERVICES 3b-B1
- COMMERCIAL SERVICES 3b-B2

# PARK CATCHMENT

- 400M PARK CATCHMENT (PARKS GREATER THAN 3000 M2)



KU-RING-GAI OPEN SPACE ACQUISITION STRATEGY  
FIGURE 3 - LGA ZONING & OPEN SPACE CATCHMENTS

NOVEMBER 2006  
1:40000 @ A3



### 3.0 DEVELOPMENT IN KU-RING-GAI

#### 3.5 Summary - Conclusions and Implications for the Acquisitions Strategy

The anticipated population growth and changes in Ku-ring-gai have significant implications for the Acquisitions Strategy in terms of both the quantity and type / location of required space.

The Residential Development Strategy (RDS) is expected to increase the population significantly – and this will be associated with parallel increases in the overall demand for open space. However, just as importantly, the RDS will generate significant changes in the housing mix and housing densities and these are likely to be associated with shifts in the types and locations of open space demand.

Parallel with these RDS-driven changes, there will be on-going changes in the existing population – with ageing being of particular relevance.

Population growth and ageing will be accompanied by changes in open space and recreation needs and demands – and this has clear implications for both the broad directions and the specific actions/priorities of the Acquisitions Strategy.

However, as indicated in the previous sub-sections, the specific changes in open space demands and needs are difficult to forecast.

The anticipated population growth is substantial - with a 16% (or 26,000 people) increase in the next 20 years. This 16% increase, other things being equal, should be accompanied by a 16% increase in open space and recreation demand. This means an additional 17,000 potential users of Council's open space resources by around 2026.

Moreover, if the population shifts discussed above (in other places experiencing infill medium density development) are repeated in Ku-ring-gai, they are likely to be accompanied by higher recreation participation rates and therefore, higher open space demands.

As such, the 'demand-reducing' effects of population ageing within the existing populations will be more than offset by the inflow of 'high participating' younger well-educated adults and children into Ku-ring-gai.

The population shifts will occur most markedly in the RDS areas (rail corridor and St Ives Village) - and it is these areas that are most likely to require changes in the quantity and mix of accessible open space and recreation resources.

As indicated in section 3.2, the RDS growth areas are not currently well served by local parks and other open space areas. It will be necessary therefore to focus the Acquisition Strategy within these areas as well as improving the usability and accessibility of open space in surrounding areas – including:

- providing high quality play/community meeting place parks (such as Kissing Point and St Ives Village Greens) within reasonable walking and/or driving distance (5-7 minutes drive) of all the RDS areas,
- Improving access to and visitor facilities at natural areas,
- Pursuing opportunities for open space dedications within development sites – and maximising the pedestrian-friendliness and accessibility of these areas,
- Increasing the usage capacity of playing fields through improved maintenance and the provision of additional training space (adjacent to existing fields), and
- Within the RDS commercial centres areas (RDS 2), the acquired spaces and then subsequent embellishment may be very urban in character (not necessarily open green grass) – consistent with the changing character of the growth centres and the overall changes in the urban character of the LGA.

## 4.0 ACQUISITION PRINCIPLES

### 4.1 Generally

As a basis for the identification of criteria for acquisition as outlined in Section 5.4, an analysis of key principles for open space provision has been undertaken. These have been listed under a range of broad considerations for open space management:

- 1 Open space provision / distribution
- 2 Recreation provision
- 3 Natural systems
- 4 Cultural heritage
- 5 Visual / landscape quality
- 6 Access
- 7 Connectivity
- 8 Carrying capacity
- 9 Economic viability / efficiency
- 10 Management and maintenance

The provision principles have informed the resolution of the acquisition criteria which provides a checklist for evaluating priorities and targets for open space acquisition and for evaluating specific acquisition opportunities (see Section 5.4).

## 4.0 ACQUISITION PRINCIPLES

### 4.2 Provision Principles

#### 4.2.1 Open Space Provision / Distribution

Acquisition objectives	Source document	Provision principles
A balanced open space system - with a sufficient quantity of all types of open space	Open Space Strategy For Ku-ring-gai, 2005	<ul style="list-style-type: none"> <li>• Provide sufficient quantities of open space - at all levels of the hierarchy – to meet recreation, biodiversity and landscape amenity needs.</li> <li>• Ensure that recreation open space acquired through subdivision/ development processes is suitable for recreation purposes.</li> </ul>
	Current study	<ul style="list-style-type: none"> <li>• In providing new open spaces and/or embellishing existing open spaces, avoid the exacerbation of existing inequities in the distribution of open space</li> <li>• Provision of new open space to incorporate dedicated open space or linkages within development sites - especially in areas where acquisition options are not available and/or feasible.</li> <li>• Consider embellishment of existing open space (making existing open spaces 'work harder') as an option for improved provision</li> <li>• Ensure that the quality of acquired open space is consistent with identified open space and recreation needs</li> <li>• Consider ongoing monitoring of open space usage to refine knowledge of open space needs</li> <li>• Assess open space priorities on an ongoing basis in conjunction with implementation of the RDS</li> </ul>
An equitable distributed open space system	Open Space Strategy For Ku-ring-gai, 2005	<ul style="list-style-type: none"> <li>• Provide enough open space of sufficient quality to meet the recreation needs of the existing and forecast populations</li> <li>• Ensure compatibility between open space uses and the uses of neighbouring land</li> </ul>
	Current study	<ul style="list-style-type: none"> <li>• Consider the quality, quantity and location of open spaces as the key measures of adequacy</li> <li>• Consider the distribution of different recreation opportunities as an important component of a well distributed open space system</li> <li>• Consider changing trends in open space use and recreation participation (younger population moving into new developments?).</li> <li>• Consider the roles of district and regional open space (particularly for residents without 'walk to' opportunities).</li> <li>• Consider existing deficiencies in the open space system when identifying opportunities to acquire new open space.</li> </ul>
	Current study	<ul style="list-style-type: none"> <li>• Consider options for acquired open space to provide recreation opportunities not currently provided for in the local area</li> <li>• Consider the demographic characteristics of new populations in catering for recreation needs (changing needs)</li> </ul>

## 4.0 ACQUISITION PRINCIPLES

### 4.2 Provision Principles

#### 4.2.2 Recreation Provision

<b>Acquisition objectives</b>	<b>Source document</b>	<b>Provision principles</b>
A diversity of recreation opportunities relevant to identified and forecast sport / recreation needs	Open Space Strategy For Ku-ring-gai, 2005	<ul style="list-style-type: none"> <li>• Develop new sports facilities (for formal and informal sporting activities and for use by the wider community) in line with expected population growth and in accordance with demonstrated needs</li> <li>• Co-locate play and other facilities (picnic, dog) with sports grounds</li> </ul>
Open spaces suitable for their intended recreation purpose	Sport in Ku-ring-gai Strategy, 2006	<ul style="list-style-type: none"> <li>• Examine opportunities for the development of new sites</li> <li>• Investigate opportunities to develop training areas off the main field of play where possible (to alleviate use pressure on fields).</li> </ul>
	Current Study	<ul style="list-style-type: none"> <li>• Ensure adequate provision of informal active recreation spaces such as open grassed (kick-about) areas.</li> </ul>
	Open Space Strategy For Ku-ring-gai, 2005	<ul style="list-style-type: none"> <li>• Ensure that all children have reasonable access to play facilities in open space areas</li> <li>• Provide a diversity of age-appropriate play environments for children (and their carers) and youth (not just a focus on small children).</li> <li>• Ensure play areas are large enough to incorporate play equipment and 'free play' space</li> </ul>
	Current Study	<ul style="list-style-type: none"> <li>• Cater for a diversity of play experiences (and creative use of non-traditional playground equipment)</li> <li>• Consider potential for incorporation of nature-based play opportunities.</li> </ul>
	Open Space Strategy For Ku-ring-gai, 2005	<ul style="list-style-type: none"> <li>• Provide a range of facilities and amenities (toilets, shelters, play areas, picnic facilities, shelters) in accordance with management plans and site master plans</li> <li>• Provide places of natural and landscaped beauty for quiet activities, solitude and other passive recreation activities</li> <li>• Provide a diversity of informal recreation activities for all age groups</li> <li>• Provide safe and visible youth 'hang' spaces</li> </ul>
Minimal negative impacts on surrounding land uses	Current Study	<ul style="list-style-type: none"> <li>• Ensure facilities provision is appropriate to the size and character of open space areas.</li> <li>• Provide informal grassed areas that allow for informal recreation (kick-about) areas</li> </ul>

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## 4.0 ACQUISITION PRINCIPLES

### 4.2 Provision Principles

#### 4.2.3 Natural Systems

Acquisition objectives	Source document	Provision principles
Protection and / or enhancement of bushland and environmental values	Open Space Strategy For Ku-ring-gai, 2005	<ul style="list-style-type: none"><li>• Conserve and enhance the natural habitat – through extending existing areas and/or establishing new areas of indigenous vegetation</li><li>• Consider the potential for acquired open spaces to provide biodiversity linkages to and between National Parks and other bushland areas</li></ul>
	Current study	<ul style="list-style-type: none"><li>• Consider the embellishment of new parks to incorporate 'bushland' planting themes</li></ul>
	Open Space Strategy For Ku-ring-gai, 2005	<ul style="list-style-type: none"><li>• Increase access to environmentally significant areas while ensuring that access does not cause significant detrimental impacts to the environmental values of those areas</li></ul>
	Current study	<ul style="list-style-type: none"><li>• Consider the potential for acquired open spaces to provide linkages / connections between open spaces and natural areas to enhance connectivity.</li><li>• Consider the role of natural areas as unique recreation resources.</li><li>• Facilitate the use of natural areas as open space where sustainable.</li></ul>



## 4.0 ACQUISITION PRINCIPLES

### 4.2 Provision Principles

#### 4.2.4 Cultural Heritage

Acquisition objectives	Source document	Provision principles
Protection and / or enhancement of historic and cultural values	Current Study	<ul style="list-style-type: none"> <li>• Consider role of historic / formal parks and gardens as important component of the open space system.</li> <li>• Recognise the limitations of historic parks to provide a diversity of recreation opportunities.</li> <li>• Any new parks adjoining historic / cultural heritage areas to respond to character of surrounding area in embellishment works.</li> </ul>

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## 4.0 ACQUISITION PRINCIPLES

### 4.2 Provision Principles

#### 4.2.5 Visual / Landscape Quality

Acquisition objectives	Source document	Provision principles
Protection / enhancement of visual / scenic values	Open Space Strategy For Ku-ring-gai, 2005	<ul style="list-style-type: none"><li>• Enhance the urban landscape by providing a continuum of</li><li>• Enhance the urban landscape by providing a continuum of natural areas and parklands throughout the LGA</li><li>• Provide (safe, well designed, well lit, shaded, linear, accessible) local environments supportive of physical activity</li></ul>
	Current study	<ul style="list-style-type: none"><li>• Park embellishments to consider and reflect visual themes of surrounding areas.</li><li>• Recognise the role of streetscapes as linkages / connections to open space.</li></ul>
	Current study	<ul style="list-style-type: none"><li>• Park environments to provide unique visual / landscape qualities and character.</li></ul>

## 4.0 ACQUISITION PRINCIPLES

### 4.2 Provision Principles

#### 4.2.6 Access

Acquisition objectives	Source document	Provision principles
Optimal (physical and visual) access to parks and open space	Open Space Strategy For Ku-ring-gai, 2005	<ul style="list-style-type: none"> <li>Plan and manage Ku-ring-gai's open space as an integrated</li> <li>Plan and manage Ku-ring-gai's open space as an integrated system with individual land parcels linked through landscape features, habitat corridors, water courses, pedestrian / cycle paths and 'park streets'.</li> <li>Provide pedestrian and cycle paths in appropriate linear reserves and on access routes to parks/open space.</li> </ul>
	Current study	<ul style="list-style-type: none"> <li>Provide high levels of pedestrian amenity to well utilised open space access routes (tree planting etc.)</li> </ul>

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## 4.0 ACQUISITION PRINCIPLES

### 4.2 Provision Principles

#### 4.2.7 Connectivity

Acquisition objectives	Source document	Provision principles
Extensive and comprehensive open space system connectivity	Current study	<ul style="list-style-type: none"><li>• Establish connections and linkages between parks, natural areas and national park to provide a diversity of recreational experiences.</li><li>• Provide connections and linear linkages between parks to enhance usable park areas.</li><li>• Provide additional / acquired open space to enlarge existing open space areas where appropriate.</li></ul>

## 4.0 ACQUISITION PRINCIPLES

### 4.2 Provision Principles

#### 4.2.8 Carrying Capacity

Acquisition objectives	Source document	Provision principles
Improved capacity of the parks and open space system to accommodate recreation, sport, and social activities	Current study	<ul style="list-style-type: none"> <li>• Provide park embellishment to existing open space to increase carrying capacity / enhance usability.</li> <li>• Acquire new park / open space area adjoining existing open space to enlarge park area.</li> <li>• Acquire new open space areas adjoining sports fields / facilities to enhance use, and alleviate usage pressure on these facilities.</li> </ul>

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## 4.0 ACQUISITION PRINCIPLES

### 4.2 Provision Principles

#### 4.2.9 Economic Viability / Efficiency

Acquisition objectives	Source document	Provision principles
Maximum return on acquisition / site development investments	Current study	<ul style="list-style-type: none"><li>• Consider acquisition of open space adjoining existing parks and sports facilities.</li><li>• Consider recreation benefits of acquisition of several smaller areas versus one large area.</li><li>• Provide for the needs of the new population while attempting to mitigate further deficiency in the existing open space system.</li><li>• Consider embellishment of existing open space as a key method in providing for the open space needs of new populations.</li></ul>

## 4.0 ACQUISITION PRINCIPLES

### 4.2 Provision Principles

#### 4.2.10 Management and Maintenance

<b>Acquisition objectives</b>	<b>Source document</b>	<b>Provision principles</b>
Optimal maintenance efficiencies	Current study	<ul style="list-style-type: none"> <li>• Consider the maintenance requirements of proposed new park acquisitions</li> <li>• Provide new open space adjoining existing open space as appropriate to maximise maintenance efficiencies (ie by reducing travel/set up times).</li> <li>• Consider the long term maintenance requirements of proposed park embellishments</li> </ul>
Acceptable risk profile	Current study	<ul style="list-style-type: none"> <li>• Consider the risks associated with open space acquisition and embellishment including soil contamination, traffic hazards etc.</li> </ul>



## 5.0 ACTION PLAN

### 5.1 Generally

The following action plan details the strategies and general priorities that need to be considered in implementation of the Acquisition Strategy. The strategies outlined should be considered in relation to the provision principles as established in Section 4.0.

#### **Provision Strategies**

The provision strategies identify the potential forms of land acquisition including:

- New Parks: acquisition of land to create entirely new parks
- Consolidation: expansion of existing parks and improving the carrying capacity of existing open space areas
- Linkages: or connections between open spaces as an important way to extend the open space network
- Urban squares or parks: that provide more civic or 'hard' open space in a growing urban development context
- Dedicated open space: provision of open space through development

Also identified are non acquisition strategies, including improvement or embellishment of existing open space and potential for partnerships or shared use of open space, which must play a role in meeting open space provision needs.

#### **Acquisition Priorities**

The acquisition priorities have been distilled to rank individual suburbs highlighting the areas of greatest acquisition priority, along with those areas where the greatest population increases will occur and which are poorly served by existing open space.

This basic geographical prioritisation provides a basis for planned acquisition in which high priority areas are targeted for land acquisition opportunities.

#### **Acquisition Criteria and Rationale**

Where properties are identified in high priority areas, these should also be screened through the acquisition criteria identified in Section 5.4 to confirm that the opportunity is viable, addresses detailed physical and social requirements, and as such is effective use of the Section 94 resources.

#### **Sample study - outcomes of acquisition**

This section examines two sample sites to review the potential outcomes of hypothetical acquisitions (in terms of the improved servicing of open space needs, and impacts, if any, on priorities across the LGA.)

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## 5.0 ACTION PLAN

### 5.2 Provision Strategies

#### 5.2.1 New Parks

New parks involve the purchase of land and subsequent embellishment to create a new independent open space. As established in the acquisition criteria, new parks at a minimum will incorporate a usable area of 3,000m<sup>2</sup> or greater. This may require that multiple adjoining properties are acquired to total the entire park area.

It is recognised in the short to medium term, acquisitions of 3,000m<sup>2</sup> and above may not be freely achievable. Therefore the acquisition of areas below this target may be appropriate given the following criteria can be met:

- area of 1,000m<sup>2</sup> or greater, bordered by properties appropriately zoned for later potential purchase and embellishment
- likelihood of adjoining property acquisition (considering local market, site history)
- further expansion of site must be achieved within a 5 year period.

The provision of new parks should be targeted to the areas of greatest shortfall / need as prioritised in Section 5.3, however must also consider the more detailed criteria outlined in Section 5.4.

When assessing the viability of potential new parks the embellishment costs need to be considered. The S94 Plan 2004-2009 identifies that the average embellishment cost for newly acquired parkland is \$88 per m<sup>2</sup>, which based on the minimum park area of 3,000m<sup>2</sup> will require \$264,000 allocated to funding of embellishment works. This figure should be considered as a basic cost and the actual costs may vary given the different use, function and general landscape quality of new park areas.

New parks should also consider the context of other open space surrounding the proposed new park, in particular in terms of functions and use already provided for in the area. This will largely guide the type and extent of park embellishment that will be required and that is suitable for the new park.

#### 5.2.2 Consolidation

The consolidation of existing parks involves the acquisition of new land to extend both the area and potential function of these parks. As outlined in Section 5.4, consolidation of existing park areas seeks to create at a minimum a total usable park area of 3000m<sup>2</sup>.

Consolidation of open space will be a priority for areas that are served by some open space but not adequately to meet the needs of new populations coming into these areas.

Consolidation may occur adjoining either existing park areas or sportsgrounds. In the consolidation of sportsgrounds the newly acquired open space may provide relief for the intense use of sportsgrounds including informal grassed kickabout areas that may be utilised for training purposes. Such potential needs to be considered when evaluating the suitability of land for acquisition and also in recognising the type of embellishment works that will be required.

It is important to note that acquisition of land for sportsgrounds has not been allowed for in the current s94 Plan and any consolidation adjoining sportsgrounds should only be considered to serve a passive recreational park function (ie not suitable for additional courts, formal fields etc).

## 5.0 ACTION PLAN

### 5.2.3 Linkages

Linkages between existing parks and to new parks provide an important enhancement of the Ku-ring-gai open space network. Linkages can improve access opportunities to open space and may create links that may form a greater recreation or fitness network. Linkages will be primarily focused on areas that are already served by some level of open space. New linkages should seek to strengthen the open space system's ability to cope with the influx of new residents by improving recreational access to existing and new open space resources.

The provision of linkages should focus on opportunities to provide connections that do not currently exist, that provide an improved access link, or that bridge two open spaces to effectively increase the usable park areas.

Land may be acquired to provide new linkages between open space areas and should seek to include a minimum width of 15m as identified in the acquisition criteria. Linkages may also incorporate non-acquisition strategies such as the improvement or embellishment of linkages, through enhanced path provision, or landscape treatments to better define existing linkages.

### 5.2.4 Urban Squares / Parks

Given the continued urban development of Ku-ring-gai and the focus of forecast residential and developmental growth within the urban 'town centre' environments the role of urban open spaces needs to be considered.

Urban squares or parks should generally aim to meet the minimum area requirement of new parks (3,000m<sup>2</sup>), however smaller areas may provide for basic recreation such as seating areas and 'breakout' spaces. In either scenario the functional and aesthetic potential of the area needs to be carefully considered including accessibility, visual qualities and solar access.

Typically, urban squares / parks will provide a 'hard' landscape rather than traditional green, grassed parks. Components of urban squares may include:

- Pavements
- Furniture
- Planting, including trees and lower level displays

The design of these areas should respond to the public domain character of the area and the visual qualities of the surrounding environment and should consider liaison with adjoining developments to ensure a mutually beneficial outcome.

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## 5.0 ACTION PLAN

### 5.2.5 Dedicated Open Space

Dedicated open space may be utilised in lieu of S94 contributions from a development to provide new open space opportunities. The dedication of open space may be particularly relevant in areas where high land costs required inhibit acquisition as a viable option.

Dedicated open space may involve the provision of urban open spaces which may serve a more civic role such as urban plazas and squares rather than traditional 'green' parks. Dedications from development may also incorporate through pedestrian access opportunities which enhance pedestrian connectivity throughout the RDS growth precincts.

The dedication of open space needs to be considered within Council's wider planning mechanisms and reviews including DA assessment, and needs to be discussed openly and early with developers as a potential opportunity. The potential for dedication of open space will be largely effected by:

- the type and size of development
- the location of development

It is also important to consider and promote that dedications can be beneficial to both Council and the developer.

### 5.2.6 Non Acquisition Strategies

#### **Improvement and Embellishment**

The S94 2004-2009 Plan identifies that, due to the high cost of acquiring land, the embellishment of existing open spaces should be considered as an important mechanism that can increase the 'carrying capacity' of existing open space areas. Embellishment of open spaces, including works to existing open spaces, has been included in the S94 Plan with total estimated costs of \$4.2 million.

The S94 Plan notes the following embellishment opportunities:

- The expansion of opportunities and 'hardening' of strategically important parks within or proximate to the RDS areas - in accordance with expected needs of the incoming populations
- Linking RDS areas to natural areas - with appropriately located pedestrian and / or cycle paths
- The upgraded parks - due to the type and quality of the proposed embellishments - are likely to attract 'drive to' as well as 'walk to' visitors.

#### **Partnerships / Shared Use**

An additional non acquisition strategy may include partnerships that enable shared use of open space or recreational spaces. This may include schools where open play areas or playing fields may be utilised by the public in a partnership agreement allowing time shared / weekend access.

It may also be beneficial for Council to consider the consolidation of services, such as libraries, child care centres etc and utilise the land 'freed' by this consolidation as open space.

This type of planning needs to be considered at the broad scale and be strategically driven through Council's corporate planning processes if this is a preferred direction for Council services provision.



## 5.0 ACTION PLAN

### 5.3 Acquisition Priorities

As outlined earlier, a means of establishing broad geographical priorities for land acquisition to meet open space needs has been developed.

The approach assumes that the priority acquisitions will be those that offer the greatest returns on Council's limited acquisition funds. That is, the priorities will be those sites with the highest potential to meet the open space and recreation needs of the new populations, while also being consistent with the parallel needs of existing populations.

To have this potential, the high priority sites will be those that are located where they are most needed (that is, proximate to new population growth centres and in areas where existing open space resources are absent or limited).

The Acquisition Priorities Table on the following page identifies the priority areas. The priorities are simply the product of three dimensions of relative need, as explained below:

Broad dimension of need/ priority	Variables	Measure/indicator
The quantity of acquisition required in a particular part of the LGA	The desirable geographical (suburb) distribution of required acquisitions (as identified in the S94 Contributions Plan 2004-2009) varies significantly across the LGA – ranging from 24.9% of the total in Gordon to 5.8% in Roseville	High priority suburbs (Gordon, Lindfield and St Ives) Medium priority suburbs (Killara, Turramurra/ Warrawee) Lower priority suburbs (Pymble, Wahroonga, Roseville)
Proximity of an area to infill development zones	Priorities vary with relative proximity to RDS zones where most of the population growth is anticipated to occur. Priority rankings decrease with increasing distance from the zones	Highest priority – less than 200m distance from the RDS growth zones. Then 3 distance bands of decreasing priority (200-500m, 501-1,000m and more than 1,000m)
Proximity of an area to existing high quality parkland open space	Current proximity to higher quality' open space (ie developed parks/spaces of a minimum size of 3,000m <sup>2</sup> and a minimum range of embellishments) and as depicted by the 'accessibility circles' explained on page 13 and drawn in Figure 2	Highest priority – Outside the 'accessibility circles' Lower priority – Within the 'accessibility circles'

The initial highest priority areas (ranked 1 in the following table) are those within the three suburbs (Gordon, Lindfield and St Ives) that will accommodate around 60% of the Stages 1 and 2 population growth and – within those suburbs – within 200 metres of relevant RDS zones and in locations not presently serviced with higher quality local open space (ie locations outside the 'accessibility circles').

Priorities reduce both with increasing distance from RDS growth areas and with respect to the relative adequacy of existing open space provision.

Figure 4 Acquisition Priorities, maps the initial geographical parameters for reading in conjunction with the Acquisition Priorities table. Figure 5, further details the priority rankings for each suburb.

## 5.0 ACTION PLAN

### 5.3 Acquisition Priorities - Geographic Location Table

Acquisition Requirements x Suburb				Acquisition Priorities (proximity to growth areas x current open space availability)							
Suburb	New RDS Pop'n stages 1&2	S94 Plan Acquisition Requirements (m2)		Within 200m of 2(d3) and B2 zones		Between 200-500m from 2(d3) and B2 zones		Between 500-1,000m from 2(d3) and B2 zones		More than 1,000m from 2(d3) and B2 zones	
		Per capita	Total	%	Not currently serviced with open space	Existing open space	Not currently serviced with open space	Existing open space	Not currently serviced with open space	Existing open space	Not currently serviced with open space
Gordon	5,327	5.82	31,003	24.9	1	2	2	3	3	4	5
Lindfield	4,178	5.82	24,316	19.6	1	2	2	3	4	4	5
St Ives	4,571	4.37	19,975	16.1	1	2	2	3	4	4	5
Killara	2,949	4.37	12,887	10.4	2	3	3	4	5	5	6
Turramurra/Warrawee	4,025	2.91	11,713	9.4	2	3	3	4	5	5	6
Pymble	2,156	4.37	9,422	7.6	3	4	4	5	6	6	7
Wahroonga	1,778	4.37	7,770	6.3	3	4	4	5	6	6	7
Roseville	1,643	4.37	7,180	5.8	3	4	4	5	6	6	7
TOTAL	26,627		124,266	100							

Priority areas (1-3 of 7 priority levels) for initial implementation of the Acquisitions Strategy (with priorities to be reviewed annually or bi-annually)

The priority rankings (1 to 7) are based on the following three variables:

1. Desirable geographical (suburb) distribution of required acquisitions (as identified in the S94 Contributions Plan 2004-2009) – ranging from 24.9% of total in Gordon to 5.8% in Roseville
2. Proximity to RDS zones where most of the population growth is anticipated to occur<sup>1</sup> - with priority rankings increasing with closer proximity to the zones
3. Current existence of 'usable' open space (ie developed parks/spaces of a minimum size of 3,000m<sup>2</sup>) within the 4 distance bands (0-200m, 201-500m, 501-1,000m and more than 1,000m) from the RDS growth zones

<sup>1</sup> The majority of Stage 1 growth (18,377 people) is expected in the 2(d3) zone, and for Stage 2 (8,290 people), in the new B2 (Local Centre) zone



PROXIMITY TO GROWTH AREA

- 200m
- 200-500m
- 500-1000m

Note: The majority of Stage 1 growth (18,377 people) is expected in the 2(d3) zone. Stage 2 growth (8,290 people) is anticipated in the new B2 (Local Centre) zone.

PARK CATCHMENT

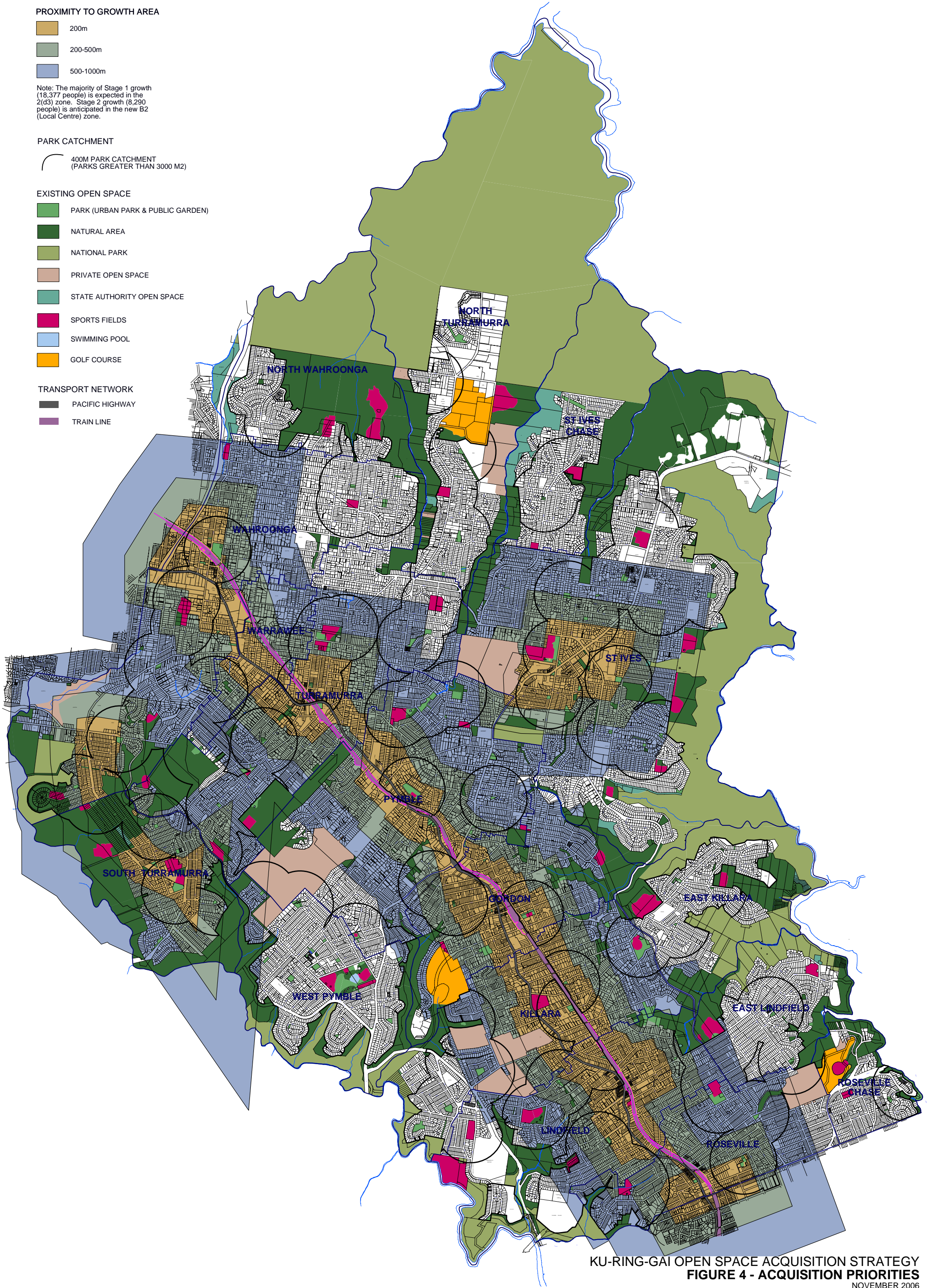
- 400M PARK CATCHMENT (PARKS GREATER THAN 3000 M2)

EXISTING OPEN SPACE

- PARK (URBAN PARK & PUBLIC GARDEN)
- NATURAL AREA
- NATIONAL PARK
- PRIVATE OPEN SPACE
- STATE AUTHORITY OPEN SPACE
- SPORTS FIELDS
- SWIMMING POOL
- GOLF COURSE

TRANSPORT NETWORK

- PACIFIC HIGHWAY
- TRAIN LINE



KU-RING-GAI OPEN SPACE ACQUISITION STRATEGY  
FIGURE 4 - ACQUISITION PRIORITIES  
NOVEMBER 2006  
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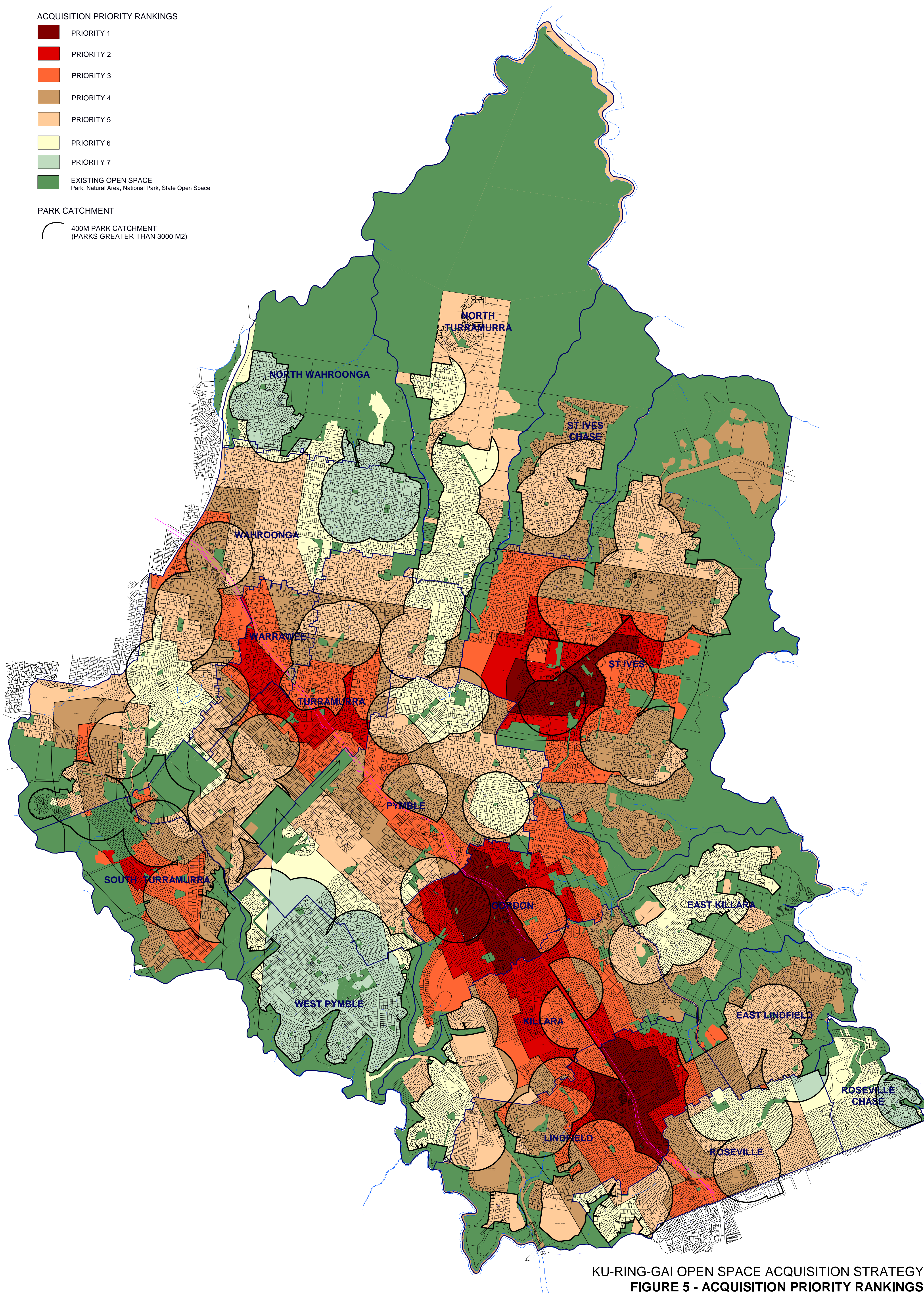


# ACQUISITION PRIORITY RANKINGS

- PRIORITY 1
- PRIORITY 2
- PRIORITY 3
- PRIORITY 4
- PRIORITY 5
- PRIORITY 6
- PRIORITY 7
- EXISTING OPEN SPACE  
Park, Natural Area, National Park, State Open Space

## PARK CATCHMENT

400M PARK CATCHMENT  
(PARKS GREATER THAN 3000 M2)



KU-RING-GAI OPEN SPACE ACQUISITION STRATEGY  
FIGURE 5 - ACQUISITION PRIORITY RANKINGS

MODIFIED JANUARY 2008  
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## 5.0 ACTION PLAN

### 5.4 Acquisition Criteria and Rationale

Acquisition will be undertaken through one of two key processes:

#### **i. Planned Acquisition**

Planned acquisition based on targeting high priority areas of need as identified on the previous pages.

#### **ii. Opportunistic Acquisition**

Acquisition of property that becomes available in the LGA through day to day market transactions.

In each process it will be essential to screen the acquisition opportunity to ensure that it is most effective in realising the objectives for acquisition and the provision principles.

The following table summarises a series of acquisition criteria which pose key questions related to the acquisition opportunity. Opportunities should positively address as many criteria as possible. The criteria provide a basis upon which Council can assess several opportunities and which can provide a summary 'brief' for agents acting on Council in sourcing properties.

The criteria relate to two potential levels of screening that will assist in an initial assessment to be followed by a more detailed assessment if initial screening criteria are met. Generally, the initial screening represents essential criteria that must be met to proceed to consideration of acquisition of a specific property. If the initial screening criteria are met, a second assessment considers in detail the desirable qualities of property for acquisition. The detailed assessment is also useful in gauging the relative suitability of similar properties.

This screening process will assist in minimising waste of resources in reviewing options which are of essentially poor quality.

Principles	Acquisition Objectives	Acquisition Criteria (screening process)	Rationale	Initial Screening	Detailed Assessment
Open space provision and distribution	A balanced open space system – with a sufficient quantity of all types of open space	Does the land provide potential for a type of space that is under provided in the precinct, district and/or LGA?	An increased quantity of under-provided types of open space will improve the overall balance of open space types and recreation opportunities		✓
	An equitably distributed open space system	Is the land located within an identified acquisition 'hot spot' (ie locational priority area 1, 2 or 3)?	Locations proximate to population growth centres will service the needs of a higher proportion of new residents	✓	
Recreation provision	A diversity of recreation opportunities relevant to identified and forecast sport/recreation needs	Does the land provide potential for spaces and park embellishment relevant to the space/recreation needs of the anticipated new populations (eg young adults and 'empty nesters')?	Spaces must be relevant to forecast recreation needs – both to satisfy S94 nexus requirements and to ensure optimal use of Council and community resources	✓	
	Open spaces suitable for their intended recreation purpose	Does the size of the land area cater for the effective development of recreational facilities? Minimum areas: New Park - 3,000m <sup>2</sup> of usable area Consolidation - total usable area 3,000m <sup>2</sup> Linkages - 15m wide Refer to Section 5.2.1 New Parks for qualification	When evaluating land for acquisition the ultimate recreation function / desirable use should be considered to determine if the size of land will be suitable for the intended use.	✓	
		Does the land / property's topography / layout provide for maximum recreation opportunity?	The slope and shape of land will determine its usability for specific open space recreational purposes, and as a consequence dictate the degree of earthworks and embellishment works required – some parameters include: Lv:14h for ramp access Lv:20h for walkway access (no handrails)	✓	
	Minimal negative impacts on surrounding land uses	Can the acquisition and/or development of park facilities minimise any negative impacts (such as noise, parking, vandalism, lighting associated with recreation use) on residential amenity?	Some impacts may be positive (eg landscaping and plantings). Potential negative impacts should be evaluated and discussions held with relevant stakeholders.		✓

<b>Principles</b>	<b>Acquisition Objectives</b>	<b>Acquisition Criteria (screening process)</b>	<b>Rationale</b>	<b>Initial Screening</b>	<b>Detailed Assessment</b>
<b>Natural systems</b>	Protection and/or enhancement of bushland and environmental values	Does the location of the land / property provide potential to contribute to the existing natural systems through extension of existing area or linkages between natural areas?	Previous research has identified strong community support for protection and enhancement of bushland areas		✓
		Is there and opportunity to transfer area from natural area to recreational park use without impact on natural values?	It may be desirable to transfer existing poor quality natural areas [highly modified / weed impacted] as identified in other Council strategies to recreational / park use and utilise acquired land to provide / extend natural areas to a higher quality.		✓
		Does the land provide potential for developed recreation area/natural area interface (eg picnic space adj to bushland, interpretive materials etc	Interfaces provide high quality recreation opportunities as well as the potential to enhance understanding and appreciation of natural values within the local population		✓
<b>Cultural heritage</b>	Protection and/or enhancement of historic and cultural values	Can transfer of the use of the site from the existing use to recreation / park minimise conflict with identified heritage values?	If conflicts are apparent these should be evaluated against the benefit of the acquisition.		✓
		Does the site have heritage values that can be appropriately incorporated in the parks system (eg cemetery, heritage buildings)	Heritage items and interpretation can increase the diversity and quality of park recreation experiences		✓
<b>Visual/ landscape quality</b>	Protection/enhancement of visual/ scenic values	Does the space have the potential to enhance the visual qualities of Council's parks system (by adding to the diversity of landscape types, providing unique values etc)?	The improvement of visual qualities will contribute to the enhancement of the area's landscape identity and legibility		✓

Principles	Acquisition Objectives	Acquisition Criteria (screening process)	Rationale	Initial Screening	Detailed Assessment
<b>Accessibility</b>	Optimal (physical and visual) access to parks and open space	Is the land accessible/central to surrounding residents and/or workers?	A central location is associated with reduced travel times and distances and is thereby likely to facilitate higher use/visit levels	✓	
		Are there adequate access services and links to the land via: - Footpath / pedestrian routes - Cycle/shared paths - Roads/car parks - Public transport Or, is there an opportunity to improve access?	Where existing access is adequate, linkage embellishment costs will be significantly less. If opportunities exist to improve access, the financial costs need to be considered		✓
		Does the land / property provide an additional access connection to existing open space (eg parks or open space that are currently 'land locked' by residential and/or commercial properties)?	Additional access connections to existing open space areas should be evaluated to determine if this enhances the usability of the park and increases the catchment area.		✓
		Does the land / property have street frontages to more than one side?	Street frontages provide important access opportunities and passive surveillance which encourages a safe park environment. Where possible, at least 2 street frontages are desirable.		✓
		Does the land facilitate the provision of co-location opportunities (eg play/picnic facilities adjacent to sports fields; parks adjacent to schools, libraries & other community facilities)	Co-location enhances physical access (by minimising travel distances for some potential users) and also enhances visual access		✓
<b>Connectivity</b>	Extensive and comprehensive open space system connectivity	Does – or can – the land / property provide additional connections between open spaces (parks, natural areas and national park) and between open spaces and community facilities (via green corridors; connections along waterways/ creek lines; off-road cycle routes etc)?	Connections can improve the catchment area / number of residents within an acceptable distance of open space. Off-road connections between parks and between parks and community facilities can also help to promote 'active transport' (cycle, pedestrian and skating) opportunities		✓

<b>Principles</b>	<b>Acquisition Objectives</b>	<b>Acquisition Criteria (screening process)</b>	<b>Rationale</b>	<b>Initial Screening</b>	<b>Detailed Assessment</b>
<b>Carrying capacity</b>	Improved capacity of the parks and open space system to accommodate recreation, sport and social activities	Does the land adjoin an existing heavily used open space area or sports facility and have the potential to alleviate use pressure on those existing areas?	The land could alleviate pressures by providing additional, overflow or peak time training space – thereby reducing wear and tear on goal post areas and areas adjacent to light towers		✓
		Does the land enable the extension of existing facilities?	Extension could improve the viability of existing sites: - through expansion to more suitable / appropriate sizes or configuration; - supplementing an active facility with passive opportunities; - providing additional training area to relieve pressure on playing fields		✓
		Does the land / property improve the availability or quality of access to existing open space?	If access to existing open space is improved the carrying capacity of the area needs to be considered in terms of its ability to accommodate increased use.		✓
		Does the land address multiple acquisition criteria	If land / properties meet multiple criteria they provide more impact for expenditure and a higher return on Council's limited acquisition funds.		✓
<b>Economic viability/ efficiency</b>	Maximum return on acquisition/ site development investments	Does the land have limited potential for alternative purposes?	Capital and opportunity costs of using the land will be lower if it is unsuited to other uses (residential, commercial etc)		✓
		What is the estimated acquisition cost (per m2)?	It may provide better value for money to acquire less well located but cheaper land elsewhere		✓
		In terms of land economics/use efficiencies, is the land more suited to development/ embellishment or to leasing in the short to medium term?	If existing structures are in poor condition, the land may be more suitable for immediate demolition and park embellishment. Alternatively, if existing structures are new and/or high value, it may be more effective to lease the property in the short to medium term.		✓



Principles	Acquisition Objectives	Acquisition Criteria (screening process)	Rationale	Initial Screening	Detailed Assessment
<b>Management and maintenance</b>	Optimal maintenance efficiencies	Does the land / property have suitable topography / drainage etc to enable ease of long term maintenance?	The topography and other characteristics of the site provide an indication of the likely maintenance costs involved - as well as the initial embellishment costs associated with correction of issues (earthworks etc).		✓
		Does the land adjoin existing open space – thereby providing consolidation potential (ie to improve use values and/or reduce m2 maintenance costs)? Is their potential for further extension of the site – to improve use values and/or maintenance efficiencies in the future?	The larger the site, the lower the unit (ie m2) maintenance costs due to transport and setup time		✓
		Is access for maintenance and emergency vehicles adequate?	Where access is adequate, maintenance costs and risks will be lower		✓
	Acceptable risk profile	Is the location/topography of the land consistent with 'safety through design' principles (eg, facilitation/enhancement of casual surveillance from residences and/or streets; clear sight lines etc)?	Risk management and minimisation is a critical component of sound asset management and an essential requirement of park planning to ensure optimal visitor comfort and use.		✓
		Is the land affected by unacceptable risks – soil contamination, traffic hazards, traffic noise impacts etc?		✓	

## 5.0 ACTION PLAN

### 5.4 Acquisition Criteria and Rationale (continued)

The following land values identify a range value for land acquisition on a suburb basis. The relative values have been ranked according to value for money, and on the identified priority ranking 'hot spots' for land acquisition (ranking of 1, 2 or 3).

It is envisaged that this will assist in the detailed assessment of a properties economic viability / efficiency.

<b>Ranking</b>	<b>Suburb</b>	<b>Rate Per Square Metre of Improved Site Area</b>
1	St Ives	\$520 to \$1,600/m <sup>2</sup>
	St Ives Chase	\$736 to \$1,300/m <sup>2</sup>
	East Lindfield	\$890 to \$1,350/m <sup>2</sup>
	Gordon	\$1,208 to \$2,315/m <sup>2</sup>
	Lindfield	\$1,250 to \$2,090/m <sup>2</sup>
2	St Ives	\$520 to \$1,600/m <sup>2</sup>
	North Turramurra	\$535 to \$1,137/m <sup>2</sup>
	South Turramurra	\$543 to \$951/m <sup>2</sup>
	East Killara	\$663 to \$1,551/m <sup>2</sup>
	Turramurra	\$724 to \$1,100/m <sup>2</sup>
	St Ives Chase	\$736 to \$1,300/m <sup>2</sup>
	Killara	\$850 to \$1,350/m <sup>2</sup>
	East Lindfield	\$890 to \$1,350/m <sup>2</sup>
	Gordon	\$1,208 to \$2,315/m <sup>2</sup>
	Lindfield	\$1,250 to \$2,090/m <sup>2</sup>
	Warrawee	\$1,300 to \$2,000/m <sup>2</sup>
3	North Wahroonga	\$498 to \$1,200/m <sup>2</sup>
	St Ives	\$520 to \$1,600/m <sup>2</sup>
	North Turramurra	\$535 to \$1,137/m <sup>2</sup>
	South Turramurra	\$543 to \$951/m <sup>2</sup>
	East Killara	\$663 to \$1,551/m <sup>2</sup>
	Turramurra	\$724 to \$1,100/m <sup>2</sup>
	St Ives Chase	\$736 to \$1,300/m <sup>2</sup>
	Killara	\$850 to \$1,350/m <sup>2</sup>
	Pymble	\$856 to \$1,158/m <sup>2</sup>
	East Lindfield	\$890 to \$1,350/m <sup>2</sup>
	Roseville Chase	\$900 to \$1,700/m <sup>2</sup>
	Wahroonga	\$1,000 to \$1,820/m <sup>2</sup>
	Gordon	\$1,208 to \$2,315/m <sup>2</sup>
	Lindfield	\$1,250 to \$2,090/m <sup>2</sup>
	Warrawee	\$1,300 to \$2,000/m <sup>2</sup>
	Roseville	\$1,400 to \$2,200/m <sup>2</sup>

## 5.0 ACTION PLAN

### 5.5 Sample Study

#### Outcomes of Acquisition

As detailed earlier in this Chapter, the open space acquisition process entails two tiers of assessment. The first concerns the location of sites – and whether or not they are in identified priority locations for acquisition (as detailed in Section 5.3). The second concerns the particular attributes of sites – their suitability for acquisition in terms of size, terrain, shape, neighbouring land uses and various other intrinsic qualities (as detailed in Section 5.4).

This section examines two sample sites to review the possible outcomes of hypothetical acquisition (in terms of the improved servicing of open space needs, and impacts, if any, on priorities across the LGA).

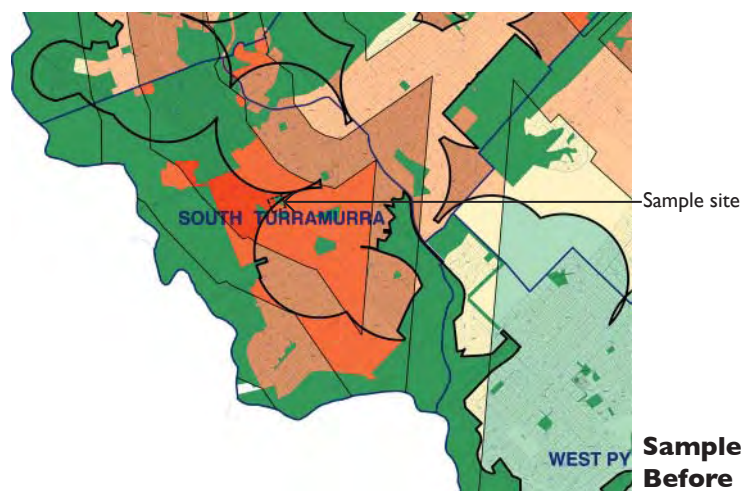
This locational assessment is demonstrated through the medium of two sample studies, as follows:

**Sample 1** 6,900m<sup>2</sup> site on Chisholm Street, South Turramurra

**Sample 2** 3,590m<sup>2</sup> site on Bundeera Avenue South, Wahroonga

#### **Sample 1 Chisholm Street, South Turramurra**

The potential catchment area for this site encompasses priority 2 and priority 3 areas. The Priority 2 components are within 200m of development zones and not currently serviced by high quality open space. The Priority 3 components are similarly not currently serviced by high quality open space but are more distant (between 200-500m) from development zones.



**Sample 1  
Before acquisition**

As illustrated on the above plan, around two-thirds of the potential catchment for the proposed site is already serviced by two high quality local parks – Kissing Point Village Green (10,534m<sup>2</sup>) and Hicks Avenue Reserve (2,070m<sup>2</sup>). The Village Green also performs a district scale function.

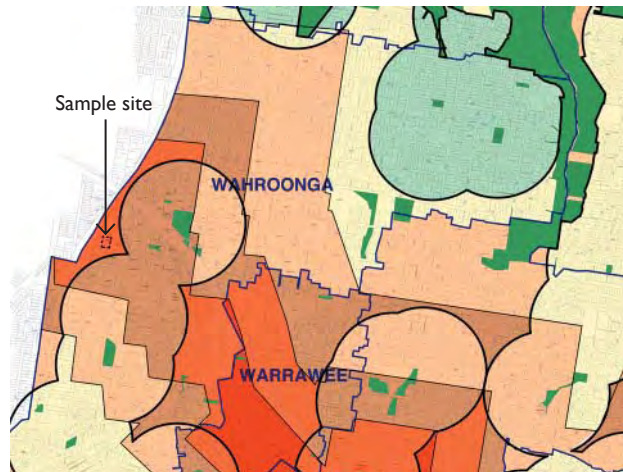
The proposed site does, however, have the potential to provide a quality local park service (not currently provided) to a relatively large number of residences that are not within the catchments of the existing parks (in an area bounded by Canoon Road to the north, Bradley Reserve to the west, Kingsford Ave to the south and Lyon Ave to the east).

## 5.0 ACTION PLAN

### Sample 2 Bundeera Avenue South, Wahroonga

The potential catchment area for this site encompasses priority 3 and priority 4 areas. The Priority 3 components are within 200m of development zones and not currently serviced by high quality open space. The Priority 4 components are also within 200m of development zones but are also within reasonable walking distance of at least one high quality park or open space area.

Taking access barriers into account, the population catchment area for this site partly overlaps the catchment area for just one other park – the very high quality Wahroonga Park (which while on the other side of the railway line, can be readily accessed via the Redleaf Avenue railway bridge).



**Sample 2  
Before acquisition**

As identified in the above plan, more than three-quarters of the potential catchment for the proposed site is either already serviced by Wahroonga Park (18,449m<sup>2</sup>) or is cut off by a range of access barriers (Pacific Highway, Newcastle Expressway and North Shore Rail line).

The proposed site can, however, provide a quality local park service to a small number of residences on Bundarra and Woonona Avenues South that are not within a reasonable walking distance of Wahroonga Park.

## 5.0 ACTION PLAN

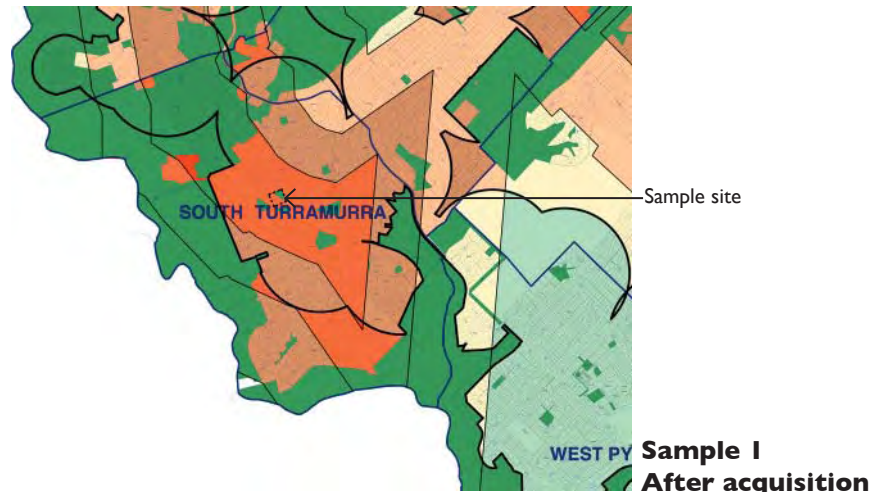
### Forecast Outcomes

The forecast outcomes of the case study acquisitions are summarized in the following table. Specifically, the table shows, for the two suburbs that the sites are in, the percentage reduction in open space required, the quantity of open space still to be acquired, the numerical and percentage reduction in residences not adequately serviced by quality open space and any subsequent changes in locational priorities.

Location	Additional open space (m2)	% Reduction in open space required in suburb	Qty open space still required in suburb (m2)	Reduction in residences not adequately serviced by open space		Impact on priorities (as per rankings in the priorities table – Section 5.3)
				No.	% residences not adequately serviced	
Chisholm St, South Turramurra	6,900	59%	4,813	90	4.9%	Turramurra drops from middle to lowest priority group – with Pymble moving up to middle priority group
Bundarra Ave South, Wahroonga	3,590	46%	4,180	48	3.1%	Wahroonga remains in lowest priority group

For both suburbs – Turramurra and Wahroonga – the acquisitions would result in a substantial reduction (around 50%) in the quantity of open space to be acquired under the current S94 Plan.

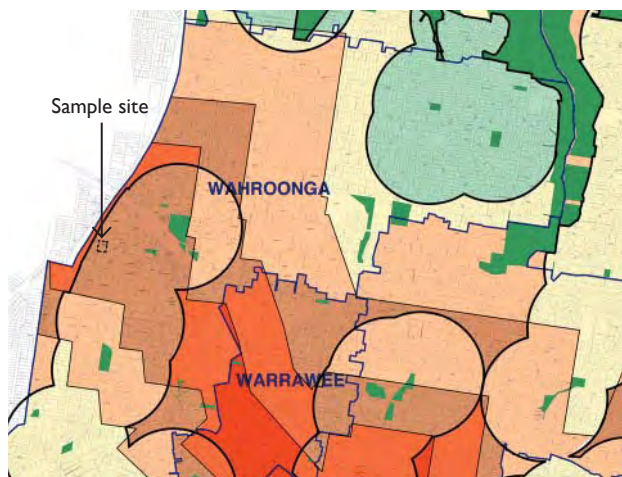
The acquisitions would also result in reasonably significant reductions in the proportions of existing residents not currently serviced by ‘walk to’ local open space (4.9% and 3.1% of residences in the two suburbs, respectively) while ensuring that all new residents within adjacent development zones were provided for.



Acquisition of the Chisholm Street site would result in a change of locational priorities for acquisition. That is, the acquisition would result in a significant reduction in the quantity of open space to be acquired in Turramurra-Warrawee (down from 11,713m2 to 4,813m2) and also a reduction in the LGA-wide proportion of required acquisitions (down from 9.4% of the LGA total - as detailed in the geographic locations table at Section 5.3 – to 4.2%). Turramurra-Warrawee therefore drops to the lowest priority group (with Wahroonga and Roseville) while Pymble (now requiring 8.3% of LGA-wide acquisitions) is correspondingly elevated to the middle priority group.



## 5.0 ACTION PLAN



**Sample 2  
After acquisition**

For the Bundarra Avenue South site, the impact of the rail line - as a Wahrenonga Park access barrier for residents to the south of the line - has been taken into account. It is assumed, accordingly, that all residences (48 lots – all separate houses except one) to the west of Neringah Avenue South are likely to centre their 'short stay' local park requirements on the proposed park rather than on Wahrenonga Park. However, longer stay activities (eg picnics and family gatherings) are more likely to be pursued at Wahrenonga Park due to the very high quality and attractiveness of this park.

### **Second Tier Assessment – Site Attributes**

Sites identified as appropriate in terms of their location (based on locational priorities) will in practice then need to be screened in terms of their suitability in meeting a range of recreation, environmental and safety criteria (as listed and detailed in Section 5.4).

This process enables assessment of site suitability in the form of proposed checklists for both the initial and detailed screening processes. Where a proposed site adequately meets the specified criteria, a tick is placed in the appropriate columns.

It is noted that it may be rare for a site to meet all the detailed assessment criteria. Judgement will be required in terms of the minimum number of criteria required to be met for each assessment made. This, to some extent, will depend on the availability or non-availability of alternative suitable sites in the immediate location.