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'.

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.

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.

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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.

Precinct	**Population Increase (2004-2009)**	**Land Requirement Per capita (m2)**	**Land Requirement Total (m2)**
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
Total	**4,998**		**23,083.04**

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.

Suburb	**Rate Per Square Metre of Improved Site Area**
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

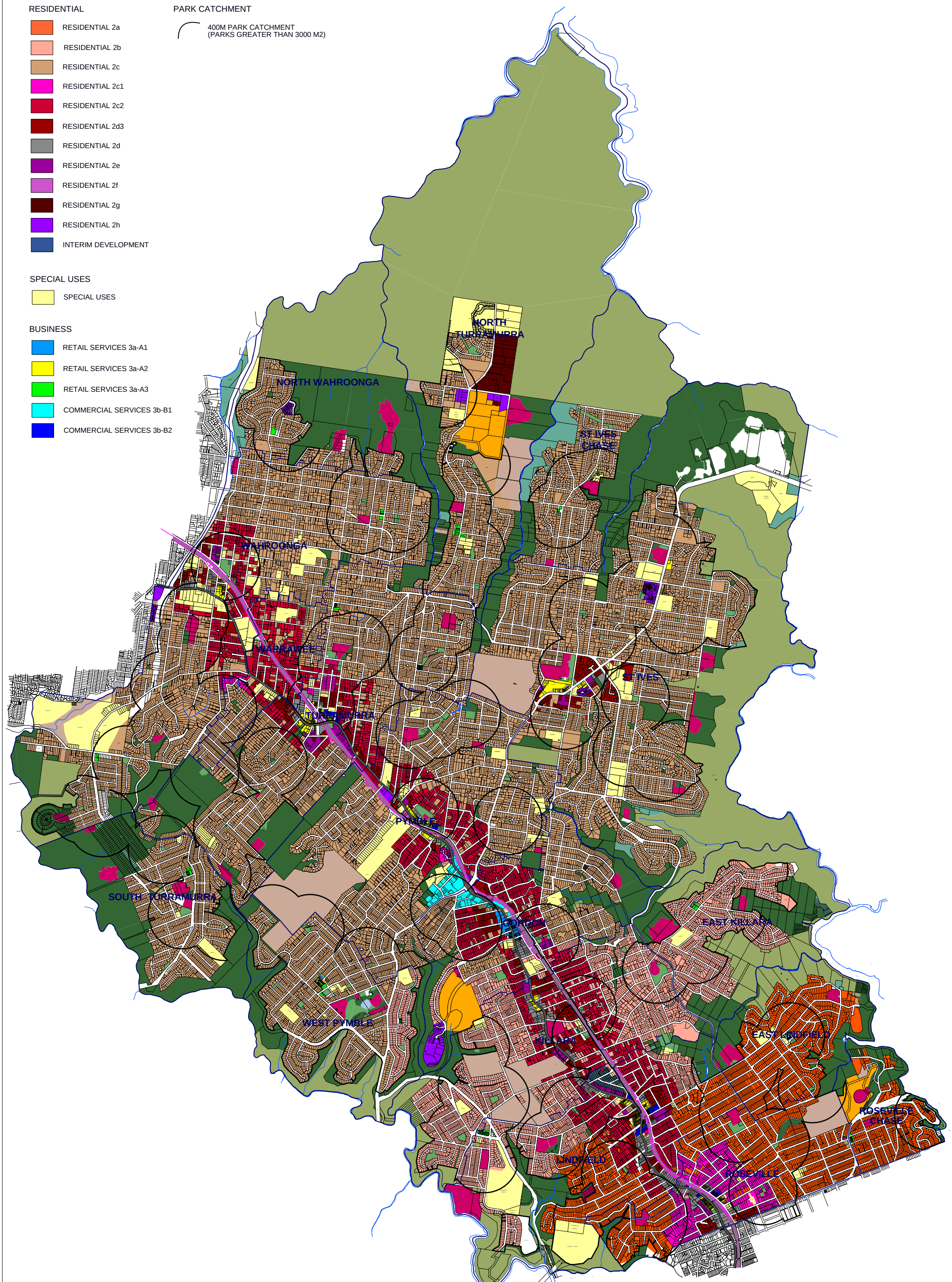
- SPECIAL USES

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

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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.