

1 September 2020

## Memo

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To: Coronation Property  
Subject: Moore Point – Demographics Research

## Executive Summary

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Mecone and Astrolabe Group jointly undertook a high level demographics analysis to inform planning for the proposed redevelopment of the Moore Point Precinct. This included a study of comparable precincts within Liverpool and elsewhere across Sydney to determine the appropriate parameters for population growth. The baseline assumption informing results was a dwelling completion rate of 530 dwellings per year in the precinct to 2036 and a declining rate thereafter, resulting in approximately 6,900 dwellings by 2036 and an ultimate capacity of 14,054 dwellings by 2051.

In the Moore Point precinct, average household size is expected to begin at 1.9 persons/household for the initial residents, then slowly increase to 2.2 persons/household by 2051. Based on the dwelling completion rate, this yields a 2036 population of 14,236 persons living in 6,890 dwellings. At ultimate capacity, the precinct would be home to 30,760 persons in 14,054 dwellings. Annual population growth is forecast to range from 1,000-1,200 persons per year across the life of the project.

Being a high density area, the precinct is likely to have a higher proportion of young adults and lower proportions of children and elderly persons. Although some young couples will have children while living in the precinct, the proportion of children is not expected to increase significantly over time. It is expected that most residents of the precinct will move in from and out to the surrounding Liverpool LGA.

Household types in the Moore Point precinct are expected to be similar to other high-density residential areas across central Sydney, with only about half of households having children. There will be a larger proportion of lone person and group households as compared to other areas of Sydney or Liverpool LGA. The household type splits will be maintained over time as new residents move in while existing residents evolve to different household types.

Full forecast data for population, age groups, and household type is in tables throughout this report.

## Background

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The Moore Point precinct will be the subject of a Planning Proposal enabling the redevelopment of approximately 40 hectares of land into a high-density mixed-use extension of the Liverpool CBD.

The Planning Proposal will be aligned with the strategic directions of:

- the Western City District Plan, which envisions Liverpool as a Metropolitan Cluster within the Western Parkland City;

- the Draft Liverpool Local Strategic Planning Statement, which identifies Moore Point as a short-medium term redevelopment opportunity; and
- the Liverpool Place Strategy, which supports the Liverpool Collaboration Area and identifies targeted dwelling growth in the Moore Point precinct.

At present, the land within the precinct is entirely used for employment purposes, hosting approximately 1,100 jobs. Portions of the Liverpool area outside the precinct, particularly in and near the CBD, are rapidly renewing to become high-density mixed-use and residential areas. These areas provide a preview of what the Moore Point precinct may become.

The working assumption for the newly rezoned precinct, is that approximately 530 dwellings will be completed each year from mid-2023 to mid-2036 and a slowing rate thereafter. This yields approximately 6,900 dwellings completed by mid-2036. The precinct is being designed for an ultimate capacity of 14,054 dwellings, which is assumed to be reached in 2051. All new dwellings are assumed to be apartments or flats, from one to multi-storey buildings.

## This Document

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A wide variety of technical reports are being prepared as part of the Planning Proposal to help establish the evidence base for land use outcomes in the precinct. This memo establishes a single reference view for the anticipated demographics of the precinct to 2036 and beyond.

The demographic data contained herein can be used in studies dealing with a variety of infrastructure needs including open space, traffic and transport, health and education, and social infrastructure. It may also interact with economic and market take-up analysis.

Population forecasts for the Moore Point Master Plan have been informed by assumptions based on analysis of key aspects of population change:

- Rate of population change
- Likely future age profile of the population
- Migration patterns (by age and proximity of place)
- Changing household types
- Changing average household size by dwelling types

## Source Data

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A comparative analysis was undertaken with the following selected SA2 areas as they are likely to provide insights into how Moore Point will change as dwellings in the development are completed:

- Chipping Norton – Moorebank (where the Moore Point development is located)
- Liverpool (with the new Paper Mill development and other high density residential around the CBD)
- Homebush Bay – Silverwater (Sydney Olympic Park where there's been long-term growth)
- North Parramatta (mature medium to high density residential adjacent to CBD, health, and education)
- Concord West- North Strathfield (location for Rhodes West development).

The last three SA2s on this list are considered the best comparisons for the future Moore Point precinct, so they have been used to inform age distributions and household type distributions in this analysis.

The Parramatta CBD and Westmead health precincts are considered an important reference point for the future of the Liverpool area. In order to obtain quantitative comparisons, the North Parramatta SA2 was chosen as the most similar to the high-density residential nature of the

future Moore Point precinct. North Parramatta is immediately adjacent to both Parramatta CBD and Westmead, and has extensive areas of mature medium-high density residential areas.

SA2s were introduced in 2011 and some changes between 2011 and 2016 were analysed to inform the population assumptions. The main data source used for analysis was the Census of Population and Housing.

Two other data sets used were:

- Estimated Resident Populations, released annually by the ABS.
- Population, Household and Dwelling forecasts for the Moorebank suburb prepared by id.profile on behalf of Liverpool City Council.

## Paper Mill

One of the major landowners for the Moore Point precinct, Coronation Property, is also developing the Paper Mill, a similar density but much smaller precinct in the Liverpool area. Coronation has provided the following data on purchasers in the Paper Mill precinct:

**Table 1. Paper Mill purchaser demographics**

Age	Number	%
18-24	23	6.8%
25-34	160	47.2%
35-44	77	22.7%
45-54	51	15.0%
55+	28	8.3%
Total	339	100.0%
Unknown	312	

Source: Coronation

The Paper Mill purchasers have a high proportion of owner occupiers – around 80%. Also, 61 purchasers are single person households, which equates to over 9% based on 651 buyers. 51 of these are owner occupiers. 312 buyers are 'unknown' meaning single person households are likely to actually be far higher.

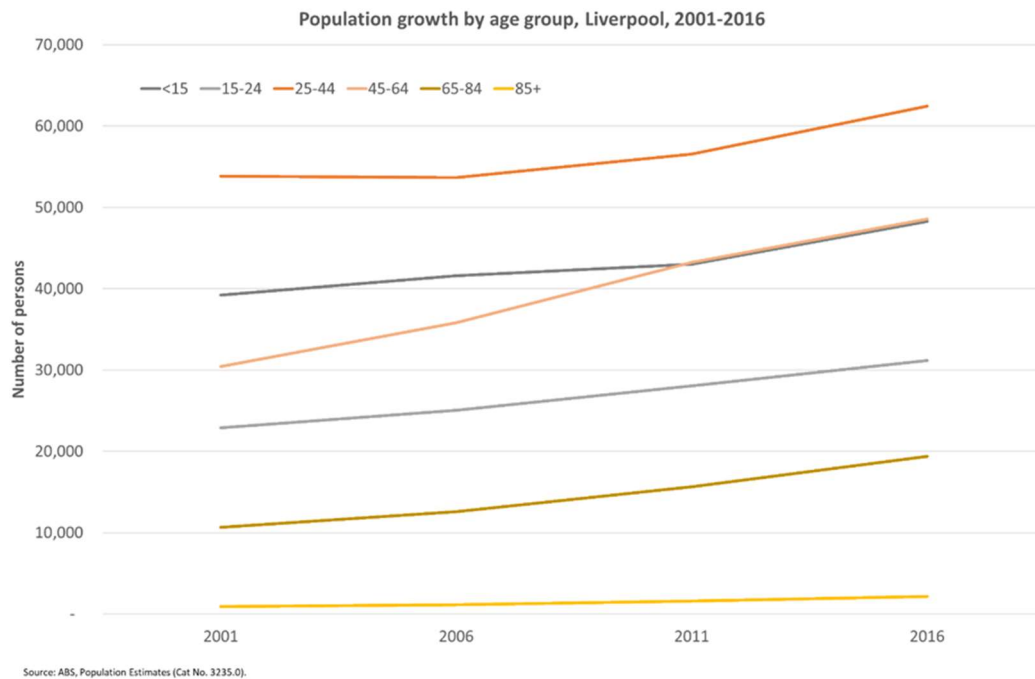
## Liverpool's Population Future

Liverpool has grown rapidly over the past 10 years, driven by natural increase and migration, both internal and international. Internal migration is driven by movements between Liverpool and the neighbouring LGAs. A focus on the SA2 of Chipping Norton-Moorebank also shows that most moves in and out of the area are to adjacent suburbs. This means future residents of Moore Point are likely to be sourced locally. This is an internal migration pattern seen throughout Sydney and the rest of Australia.

Overseas migration has been a key factor influencing Liverpool's growth, with both new migrants calling Liverpool home, as well as those who have lived in Australia for a long time. This is a key factor that will continue to affect Liverpool into the future.

Liverpool has a young age profile, particularly when compared to Metropolitan Sydney as a whole. This relative youth means Liverpool's population will continue to grow as these young people create new households and have children. The biggest age group in Liverpool has been and continues to be in the 25-44-year age group, the peak age for having children.

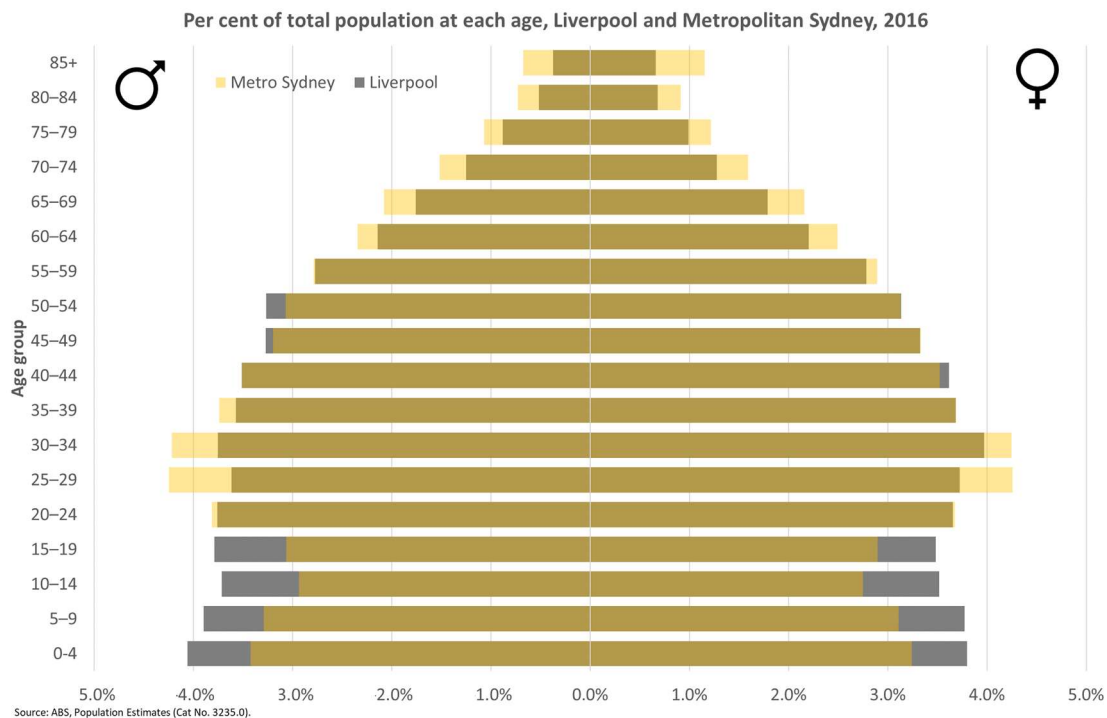
**Figure 1. Liverpool LGA recent growth by age group**



The relatively young age profile of Liverpool is projected to remain relatively stable into the future, with large increases in the key ages 20-39 (seen in projections by id. profile, NSW Department of Planning, Infrastructure and Environment and unpublished scenario projections prepared by Astrolabe Group for Liverpool City Council in 2018). These ages dominate the couple only and couple with children household types, as well as group households.

This young population means significant demand for housing, locally-based jobs, transport links, essential services as well as leisure opportunities. This is a key group likely to be living at Moore Point in the future. The relatively higher share of the children within the population also means for young adults, competition for detached housing will be higher, making it more likely that they will seek attached dwelling forms.

**Figure 2. Liverpool vs Sydney metro age groups**



Using the LGA population as a basis for determining supply within the smaller geographic area is supported by the data for the relevant SA2, as shown in Table 2.

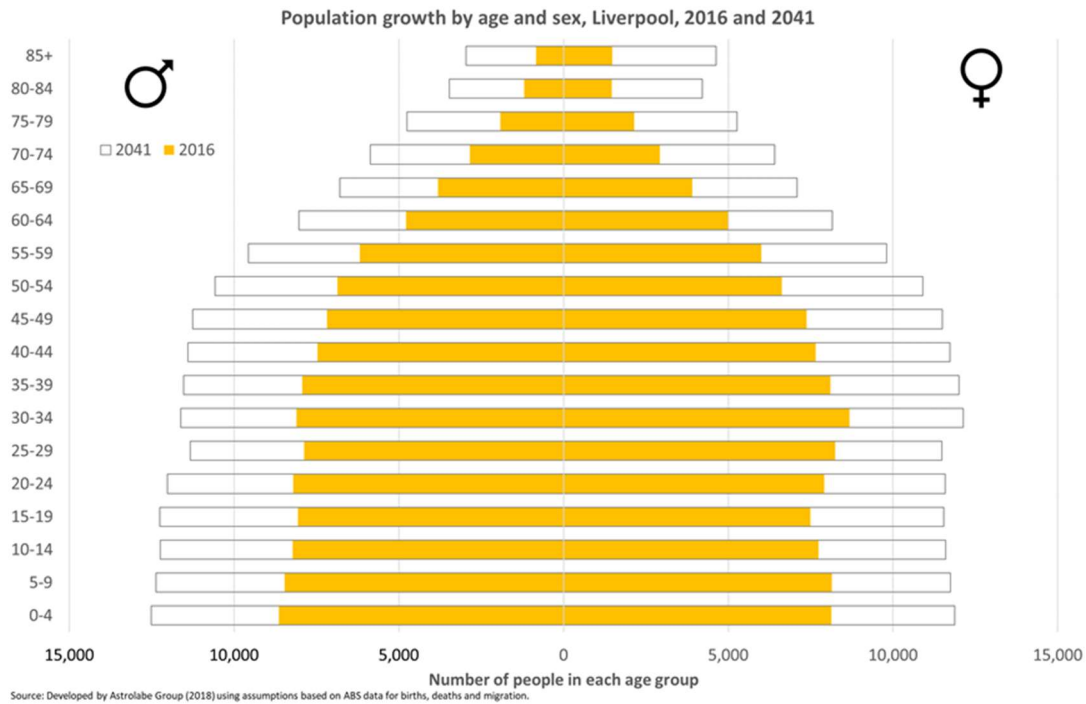
**Table 2. Age groups in Moore Point area in 2016**

AGE GROUPS	CHIPPING NORTON- MOOREBANK SA2		LIVERPOOL LGA
UNDER 15	22%	23%	
15-24	12%	15%	
25-44	30%	29%	
45-64	22%	23%	
65-84	13%	9%	
85+	1%	1%	

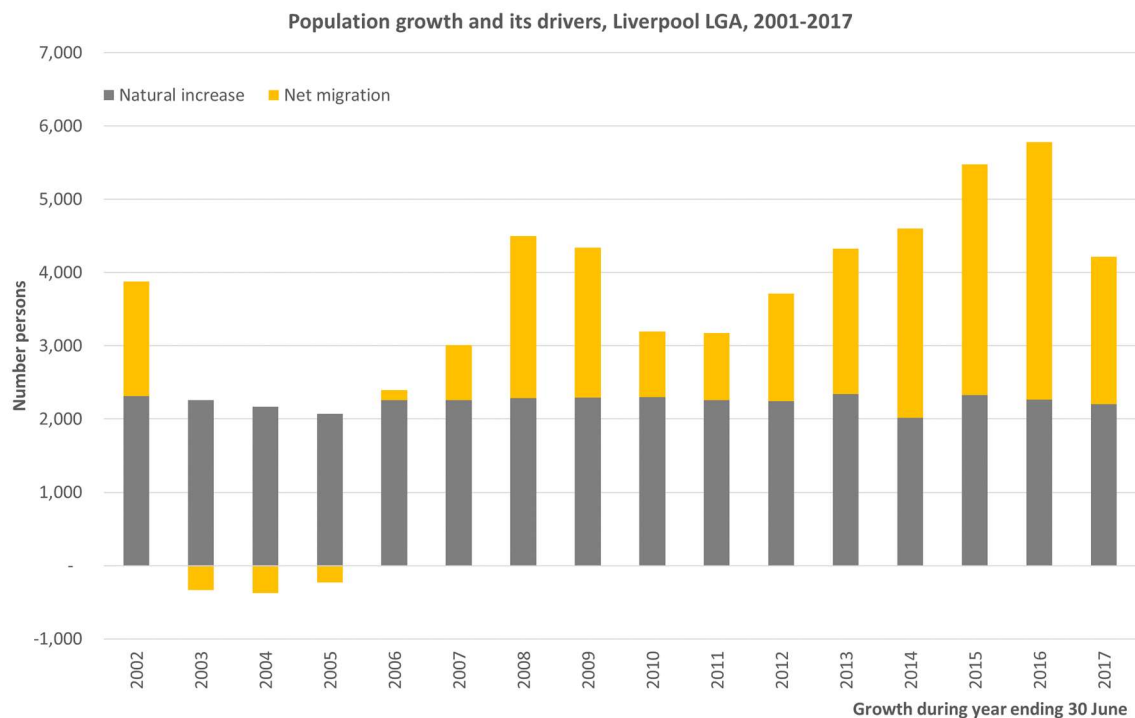
Source: ABS Estimated Resident Population 2018.

Unpublished population projection scenarios for Liverpool show that even with different overseas migration policy settings by the Australian Government, Liverpool will continue to grow driven by natural increase (see Figure 3). Growth from natural increase is unlikely to change given continued improvements in life expectancy and the young population age profile contributing to relatively higher numbers of births (see Figure 4).

**Figure 3. Current and future Liverpool LGA age groups**



**Figure 4. Population growth drivers in Liverpool LGA**



## Household Size

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The main assumption driving population forecasts for Moore Point is the average household size for each new dwelling. This average is assumed to change over time, rising from 1.90 persons per dwelling initially to 2.1 persons per dwelling after 15 years and an ultimate figure of 2.2 persons per dwellings by 2051.

These averages represent a change whereby new apartment dwellers at Moore Point initially reflect the characteristics of current apartment residents in Liverpool, moving over time to a higher household size typically seen in more established areas, and recognising that single persons will form couple households, some will have children and remain living in apartments, and rental by group households will become more common as more dwellings are available.

Average household size represents a mix of different households within available dwellings. This means even when the average household size is larger, there is a share of lone person households and has an implicit assumption that initial residents will remain when they partner, and that couples are likely to move in. This assumption is underpinned by the expected age profile seen within Liverpool City Council and neighbouring Councils as the sources of in-migration to Moore Point.

Those currently living in apartments within the Chipping Norton-Moorebank SA2 have an average household size of 1.9. This is consistent with first movers into the Moore Point precinct being similar to persons already in apartments in the area. It is also consistent with preliminary data on persons who have bought apartments in the Paper Mill development.

An average household size of 2.15 reflects apartment household size in Homebush Bay-Silverwater SA2 (where Sydney Olympic Park is located). This reflects entry of current primary school age children living in the area reaching their late 20s and likely to be leaving home and forming new couple relationships.

Apartment dwellers in North Parramatta SA2 have an average household size of 2.25, representing a similar proximity to Parramatta CBD as Moore Point will have to Liverpool CBD. North Parramatta has a large number of apartments mostly in established neighbourhoods, in contrast to Homebush Bay-Silverwater. Because of its maturity as a residential precinct, North Parramatta SA2 has a similar age profile as Liverpool but with slightly more 25-39 year olds. This is considered a strong comparison for the ultimate evolution of the Moore Point precinct.

An average household size of 2.4 reflects a higher average household size that is in line with SA2s in central Sydney such as Concord West-North Strathfield (where Rhodes West is located) where apartments have a higher average number of inhabitants. This reflects some of those couples who were early movers into apartments having children, as well as growth of group households as seen in Sydney Olympic Park and Concord West-North Strathfield. Larger households in apartments there do not have other nearby affordable choices for larger dwellings and so are willing to stay in smaller dwellings.

Because of the relative affordability of other housing options around Liverpool LGA, the average household size in Moore Point is not expected to grow as high as in Concord West-North Strathfield. Households with higher numbers of persons will likely choose a larger dwelling elsewhere in Liverpool LGA rather than stay in an apartment in the Moore Point precinct.

## Population Forecasts

Numerical forecasts have been prepared applying the assumptions about average household size over time to the cumulative dwelling count each year in the precinct. New dwellings in each year are assumed to have an average household size of 1.9 for their first year, due to the types of initial occupiers.

**Table 3. Population forecasts for Moore Point precinct**

YEAR ENDING 30 JUNE	CUMULATIVE DWELLINGS	HH SIZE (EXCL NEW DWELLINGS)	ANNUAL POPULATION GROWTH	CUMULATIVE POPULATION GROWTH
2024	530	1.900	1,007	1,007
2025	1,060	1.915	1,015	2,022
2026	1,590	1.930	1,031	3,053
2027	2,120	1.945	1,047	4,100
2028	2,650	1.960	1,063	5,162
2029	3,180	1.975	1,079	6,241
2030	3,710	1.990	1,094	7,335
2031	4,240	2.005	1,110	8,446
2032	4,770	2.020	1,126	9,572
2033	5,300	2.035	1,142	10,714
2034	5,830	2.050	1,158	11,872
2035	6,360	2.065	1,174	13,046
2036	6,890	2.080	1,190	14,236
2037	7,414	2.090	1,158	15,394
2038	7,931	2.100	1,155	16,548
2039	8,441	2.110	1,151	17,699
2040	8,945	2.120	1,148	18,847
2041	9,443	2.130	1,144	19,991
2042	9,934	2.138	1,121	21,112
2043	10,418	2.146	1,115	22,227
2044	10,896	2.154	1,109	23,335
2045	11,368	2.162	1,102	24,438
2046	11,833	2.170	1,096	25,533
2047	12,291	2.176	1,066	26,599
2048	12,743	2.182	1,057	27,656
2049	13,189	2.188	1,048	28,704
2050	13,628	2.194	1,039	29,743
2051 (ULTIMATE)	14,054	2.200	1,017	30,760

Source: Mecone and Astrolabe

## Age Profile

Given the concentration of attached dwellings in the Moore Point Master Plan new development is likely to deliver a different age profile to that seen elsewhere in Liverpool, more similar to other areas where there are concentrations of apartments. This means an initial age profile similar to that seen in Homebush Bay- Silverwater, where apartments dominate the housing typology, can be expected at Moore Point. This suggests almost one third of residents in the early adult ages (15-34 years) and almost another third aged 35-54 years.

While there are only a small number of apartment residents in Liverpool at the moment, those who do live there tend to be younger and live in smaller households. Apartments therefore are



age-selective in some ways, attracting younger residents, particularly when they are first built and likely to be a cheaper alternative to younger people wanting to enter the housing market.

It is expected that few children will be resident in the new development initially due to predominance of lone person and couple only households made up of people in their late 20s and early 30s. Almost 20 years data from Homebush Bay- Silverwater shows that while the number of children has increased over time, year on year, the share of the total population has stayed about the same and the increase in new children under five years has been about the same every year. This has two implications, it means there is likely to be small but stable demand for services associated with younger children, but that the main residents will be adults of working ages.

The dominance of people at adult working ages in apartment dwellings also means the development itself may experience much slower rates of population ageing. In Homebush Bay-Silverwater for example the share of the population aged 65 and older has only increased from 5 to 6 per cent over 20 years. The number of older people will increase as people move in and stay there as they get older. Liverpool more broadly is affected less by structural ageing than other parts of Sydney and NSW because of the relatively young age profile.

The forecast split across 5-year age groups for the Moore Point precinct is provided in Table 4 below. These have been estimated applying age group propensities based on an average of the SA2s of Homebush Bay-Silverwater, Concord West-North Strathfield, and North Parramatta, with changes in distribution over time based on the rate of change as indicated by the 2019 NSW Population Projections for Liverpool LGA.

**Table 4. Age group forecasts for Moore Point precinct**

	2036		2051	
<b>0-4 YEARS</b>	1,007	7.1%	2,124	6.9%
<b>5-9 YEARS</b>	675	4.7%	1,449	4.7%
<b>10-14 YEARS</b>	512	3.6%	1,088	3.5%
<b>15-19 YEARS</b>	551	3.9%	1,195	3.9%
<b>20-24 YEARS</b>	1,141	8.0%	2,327	7.6%
<b>25-29 YEARS</b>	1,852	13.0%	3,706	12.0%
<b>30-34 YEARS</b>	2,084	14.6%	4,484	14.6%
<b>35-39 YEARS</b>	1,544	10.8%	3,369	11.0%
<b>40-44 YEARS</b>	982	6.9%	2,378	7.7%
<b>45-49 YEARS</b>	765	5.4%	1,626	5.3%
<b>50-54 YEARS</b>	661	4.6%	1,415	4.6%
<b>55-59 YEARS</b>	640	4.5%	1,306	4.2%
<b>60-64 YEARS</b>	580	4.1%	1,275	4.1%
<b>65-69 YEARS</b>	397	2.8%	949	3.1%
<b>70-74 YEARS</b>	304	2.1%	685	2.2%
<b>75-79 YEARS</b>	187	1.3%	483	1.6%
<b>80-84 YEARS</b>	159	1.1%	391	1.3%
<b>85+</b>	197	1.4%	509	1.7%

Source: Mecone and Astrolabe

## Household Type

Assessing the longer term future of household types in Moore Point has also been informed by looking at areas where apartment developments are not new, and there is some data to indicate what may happen into the future. In Homebush Bay – Silverwater SA2 (where Sydney Olympic Park is located) there was rapid growth from 2001 to 2006, which slowed until 2012 when growth accelerated again. This SA2 now has no single dominant household type, and major contributors include both households with and without children plus lone person and group households. A similar pattern is seen in Concord West-North Strathfield and North Parramatta SA2s.

**Table 5. Household type in 2016**

	<b>HOMEBUSH BAY – SILVERWATER SA2</b>	<b>CONCORD WEST - NORTH STRATHFIELD SA2</b>	<b>NORTH PARRAMATTA SA2</b>
<b>COUPLE ONLY</b>	25%	25%	23%
<b>COUPLE WITH CHILDREN</b>	26%	27%	26%
<b>ONE PARENT FAMILY</b>	6%	6%	7%
<b>OTHER AND MULTI- GENERATION FAMILIES</b>	19%	15%	17%
<b>LONE PERSON</b>	20%	17%	20%
<b>GROUP HOUSEHOLDS</b>	5%	10%	7%

*Source: 2016 Census of Population and Housing*

The above SA2s represent clear examples of what Moore Park will grow into beyond 2036. There are likely to continue to be households with children living at Moore Point, but a smaller share than would be seen in separate houses. Based on patterns seen in Homebush Bay-Silverwater, North Parramatta and Concord-West, where apartments dominate the housing stock, couple only and lone person households are likely to continue to be the most common type. There will be increases in the number of households with children, still requiring support for over 4,000 dwellings with children in residence by 2051.

Census data show that the population in Moore Point is likely to come from in-migration from neighbouring areas (e.g. those persons already living in Liverpool). There is a large cohort of children currently in Liverpool enrolled in primary school. By 2036 these children will be in their late 20s, reflecting the key migration ages in the areas looked at to support this analysis. These persons will become a source of new residents forming couple, group, and lone person households in the higher-density Moore Point precinct, maintaining the household type splits even as other households evolve to have children or multi-generation families.

**Table 6. Household type forecast for Moore Point precinct**

	<b>2036-2051</b>	<b>2036</b>	<b>2051</b>
<b>COUPLE ONLY</b>	23.1%	1,591	3,421
<b>COUPLE WITH CHILDREN</b>	26.0%	1,796	3,862
<b>ONE PARENT FAMILY</b>	7.1%	492	1,058
<b>OTHER AND MULTI-GENERATION FAMILIES</b>	17.2%	1,187	2,552
<b>LONE PERSON</b>	19.7%	1,360	2,926
<b>GROUP HOUSEHOLDS</b>	6.8%	468	1,006

*Source: Mecone and Astrolabe*