



Ingleside Masterplan Economic, Employment and Retail inputs

Cox Architecture for NSW Dept. Planning, Industry and Environment

March 2021

FINAL REPORT





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1. Executive Summary

Housing and population profile

Under the final housing option provided by Cox, there would be 1,110 dwellings in the part of Ingleside proposed to be redeveloped, a net increase of 980.

TABLE 1: AMOUNT OF HOUSING IN MASTERPLAN OPTIONS CONSIDERED FOR THIS STUDY

	Separate house (large lot)	Separate house (small lot)	Attached dwellings and units	Total
Final option	24	670	416	1,110

Based on the anticipated dwelling type in the master plan and the population profile of the Northern Beaches that match these housing types, it is anticipated that the Ingleside Precinct will accommodate approximately 3,117 residents when complete (Table 2).

TABLE 2: EXPECTED POPULATIONS FOR EACH DWELLING TYPE

	Separate house	Attached dwellings	Total
Final option population	1,988	1,129	3,117

As there were approximately 419 people living in the Precinct in 2016, there would be a net increase of 2,698.

Policy and economic context

The Master plan is being developed in the context of wider strategic planning consideration within the Northern Beaches LGA, driven by the Local Strategic Planning Statement process that has taken place over the past two years.

As part of this process, a Draft Employment and Centres Strategy, along with the LSPS, identified the nearby Strategic Centre of Mona Vale as the key centre of the north of the LGA, and seeks to consolidate its role as the primary retail and commercial centre in the area.

The employment and residential profile of the Mona Vale and Ingleside areas points to a mix of knowledge intensive industry-employed residential population who travel to major commercial centres for work and those working locally. Many of the jobs undertaken in Mona Vale are related to population services such as retail, health and education. Those jobs are primarily undertaken by people who live within the LGA. This profile reflects the strategic yet population-serving nature of Mona Vale and the profile of those who live in the area.

The Ingleside Master Plan should therefore consider this economic profile when planning for both commercial and retail floorspace.

Trends and drivers influencing the master plan

A number of economic trends will influence the development of the Ingleside master plan and the broader structure of the Northern Beaches' economy and centre roles.

- **The impact of COVID-19 on retailing.** COVID-19 has exacerbated already observed trends towards online retailing and away from bricks-and-mortar stores. This will alter the demand for certain types of retail floorspace in centres in the future – particularly, for example, traditionally anchor retail typologies such as Discount Department Stores. Reduced retail trade in a local economy is likely to therefore mean larger retail-based centres (such as Mona Vale and Warriewood) that already have a critical mass of retail may be where future supply is directed.
- **The impact of COVID-19 on ways of working.** COVID-19 related shutdowns across Australia have seen more people than ever working from home in 2020. Whether more people will continue to do so post-COVID is uncertain at this time, and working from home is not possible for all businesses. It is expected people will continue to seek flexibility in their working arrangements, working from home some of the time, as workers and employers become more attuned to the possibility and practicalities of working more extensively from their home bases in a post-COVID world. This will impact of the types of services and facilities that local centres provide.
- **The impact of COVID-19 on café culture and local centres.** Australia has long had a strong café culture that has supported local centres. The shift towards more frequent home-based working as a result of the COVID-19 pandemic has for many local cafes and restaurants in local suburban centres resulted in increased patronage through the week, albeit at the expense of CBD-based cafes. With remote working likely to remain a way of working for many, local cafes in centres such as Mona Vale and a small centre in Ingleside are likely to benefit from this change.

Employment projections

Employment projections are produced by Transport for NSW for use in transport modelling and other planning across the NSW State Government. These projections were used by SGS in the Northern Beaches Employment Strategy, and provide an image of current and expected economic performances of the Northern Beaches LGA and its constituent parts. For this study, projections have been summarised for the LGA and for the Mona Vale area, which includes Ingleside. It is noted that these projections were produced prior to the COVID-19 pandemic.

Overall, Employment is expected to grow in the Northern Beaches and Mona Vale area in all broad industry sectors, albeit at relatively low levels. The most recent release of employment forecasts for the Northern Beaches by TfNSW (TPA19) anticipate a total of just under 4,800 new jobs in the Mona Vale area by 2036 (Table 3).

TABLE 3: EMPLOYMENT PROJECTIONS

	Broad industry category	2016 (TZP19)	2036 (TZP19)	Change 2016-2036 (TZP19)	Change 2016-2036 (TZPv1.51)
Northern Beaches LGA	Knowledge Intensive	23,345	30,549	7,204	8,618
	Health and Education	22,977	36,482	13,506	8,170
	Population Serving	40,966	49,491	8,524	7,425
	Industrial	15,169	17,212	2,042	-2,380
	<i>Total</i>	102,457	133,734	31,276	21,834
Mona Vale-area	Knowledge Intensive	3,693	4,828	896	1,526
	Health and Education	3,948	6,513	2,268	1,614
	Population Serving	6,879	8,451	1,299	1,679
	Industrial	2,966	3,308	328	-616
	<i>Total</i>	17,486	23,100	4,792	4,203

Source: Transport for NSW 2019 *TZP v1.51 Projections*, Transport for NSW 2020 *TZP19 Projections*

Retail demand

Development at Ingleside will increase retail expenditure in the local retail sub-catchment, and some of this additional expenditure could be captured by a retail centre at Ingleside. For the purpose of modelling it was assumed that development will be complete by the year 2031, and so results are shown for that year. The results would be slightly different for other years due to the impacts of inflation and an increasing online retail market share, but the 2031 results are appropriate as a strategic guide. These results are shown in the table below.

TABLE 4: POTENTIAL RETAIL DEMAND FLOORSPACE ASSOCIATED WITH DEVELOPMENT AT INGLESIDE (SQM)

Online retail scenario	Supermarket	Other food	Hospitality	Other	Total
Medium online market share	859	363	676	1,974	3,873
High online market share	826	350	679	1,703	3,557

Much of this floorspace demand would be likely to be captured by other centres – for example people are likely to travel to Mona Vale or Brookvale or large or specialised shopping trips. A larger amount of the supermarket spending would likely be able to be captured, followed by other food and hospitality, and only a very small portion of other expenditure. On this basis and without prescribing the size, a small retail centre could be supported at Ingleside (for example of around 1,000sqm).

Two different potential sizes of retail centres have been tested at Ingleside: a smaller and larger centre each anchored by a small supermarket and with a large hospitality presence compared to the size of the centre.

TABLE 5: THE SIZES OF POTENTIAL CENTRES AT INGLESIDE USED FOR IMPACT TESTING (SQM)

	Supermarket	Other food	Hospitality	Other	Total retail floorspace
Small centre	200	100	200	100	600
Medium centre	600	300	600	300	1,800

Future changes to economic conditions are likely to influence the ultimate quantum of retail floorspace needed in the Ingleside precinct and wider Mona Vale area to meet future need. There is, however, likely to be demand for a small supermarket-based centre at Ingleside serving the day to day retail needs of future residents, although a larger centre is likely to struggle to compete with other nearby larger centres and would likely impact on the wider centre hierarchy of the Northern Beaches.

The expected population growth at Ingleside could support a local retail centre, for example with around 1,000sqm of retail floorspace. A small supermarket, hospitality businesses and specialty food stores are likely to be in highest demand in such a centre. Modelling shows retail centres of 600sqm and 1,800sqm at Ingleside would not impact on the turnover of other centres, which would be increased overall due to the additional population in the sub-catchment.

Commercial demand

The demand for and provision of commercial floorspace in the Ingleside precinct follows a similar line of logic to the provision of retail floorspace. Strategic planning aspirations require the retention of Mona Vale's primacy as the major strategic centre for the north of the LGA. Future commercial floorspace should be directed towards Mona Vale due to its size, public transport accessibility and established suite of local services and amenities.

However, the impact of COVID on how many people now work, and these trends likely to continue in some form, a future small centre in Ingleside may provide shared meeting rooms or similar such commercial functions to support those working from home. It would be expected however that such a

facility would be part of another piece of community infrastructure (such as a local library or community hall) rather than delivered in commercial suites by a private supplier.

Development feasibility

Development feasibility was tested for subdivision of existing properties into separate house lots, and for the subdivision and construction of medium density townhouses similar to those that have been built in Warriewood. Feasibility was tested on sites in three size brackets, all of which are present in Ingleside: small sites of 4,000sqm or less, medium sites of 4,000 – 8,000sqm and larger sites of 1.5ha or more. In each case an indicative development contribution of \$50,000 per resulting dwelling was included.

This analysis is intended to provide strategic guidance as to what kinds of development may be feasible rather than to dictate what development densities should be applied or what size of development contribution should be applied. Results were that:

- Development of both houses and townhouses is highly feasible on medium and large lots, indicating substantial room between recent land prices and the price a developer could afford to pay to feasibly develop a site.
- Development of houses and townhouses is generally unfeasible on small sites due to higher per square metre land prices, although development is close to feasible if the entire site can be developed.

This modelling shows that it is reasonable to plan for development of both houses and townhouses at Ingleside. The modelled lack of development feasibility on smaller sites may translate into small rates of development on these sites, but development may be feasible in the future due to changes in the property market, or at the moment if developers can develop more profitably than suggested by SGS's relatively conservative modelling assumptions.

From a masterplan sequencing perspective, this feasibility analysis indicates that the sub-division and development of larger lots is more likely to be feasible in the early stages of the development, with smaller lots taking developing over a longer time frame.

2. Introduction

SGS has been commissioned by Cox Architecture for the NSW Department of Planning, Industry and Environment to undertake two studies to inform the development of a masterplan for development at Ingleside: An economic and feasibility assessment and a retail data analysis. The findings of both studies have been included in this report.

The scope of the economic and feasibility assessment is to:

- Profile the economy of the Northern Beaches and area surrounding Ingleside,
- Analyse the residential, commercial and retail property market,
- Review economic trends and drivers likely to impact on the local economy and prospects of Ingleside,
- Summarise growth projections and housing demand for Ingleside and the Northern Beaches
- Model the feasibility of development at a high level (to be included later following discussion with Cox and DPIE)
- Identify potential development contribution mechanisms for use at Ingleside
- Synthesise findings to inform the appropriate future housing and economic development of Ingleside

The scope of the retail analysis is to:

- Re-run retail modelling undertaking as part of the development of the Northern Beaches Employment Strategy, and run scenarios showing the impact of retail development at Ingleside
- Review economic and retail trends which could impact on retail needs and prospects at Ingleside
- Synthesise findings and site-specific opportunities and constraints to inform any appropriate retail development at Ingleside.

Report structure

This report contains the following sections:

- Chapter 2: Demographic profile, which includes a summary of the population and household profile of benchmark areas and an estimate of the population which could be accommodated through proposed masterplan options.
- Chapter 3: Economic and market profile, which summarises the industry profile, specialisation and other economic characteristics of Mona Vale and the Northern Beaches, as well as the commercial and residential property markets.
- Chapter 4: Economic trends and drivers, which discusses potential implications for Ingleside of economic and retail trends and drivers.
- Chapter 5: Summary of growth projections, which lists economic and housing growth projections for the Northern Beaches and discusses implications for Ingleside.

- Chapter 6: Retail needs analysis, which identifies potential retail demand arising from development at Ingleside and models impacts of a new centre on existing centres
- Chapter 7: Opportunities and constraints, which summarises the findings of the previous sections and identifies resulting development opportunities and constraints
- Chapter 8: Development contributions mechanisms, which discusses the range of development contributions mechanisms which could be used at Ingleside.
- Chapter 9: Conclusion, which summarises findings from the other sections and makes recommendations regarding development.

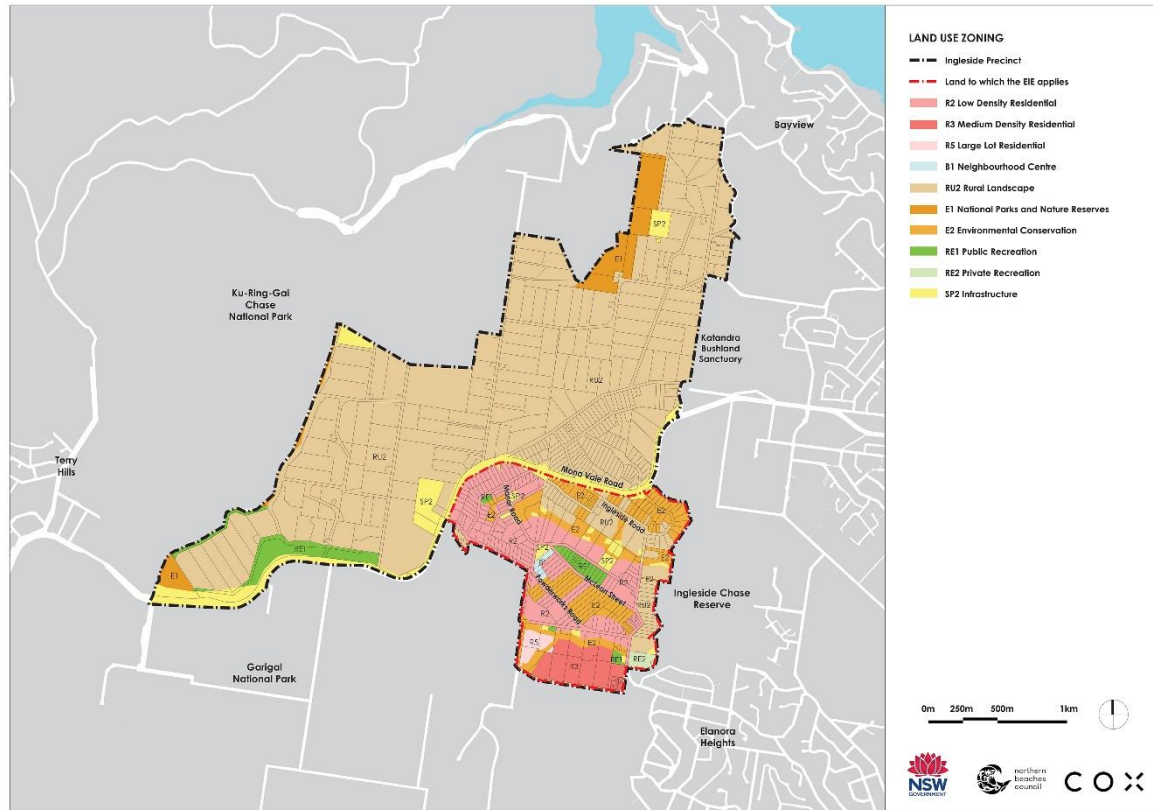
Masterplan options

SGS has been provided with three masterplans from Cox Architecture which identify the quantum and potential locations of development at Ingleside. The housing mix considered is listed in the table below.

TABLE 6: AMOUNT OF HOUSING IN MASTERPLAN OPTIONS CONSIDERED FOR THIS STUDY

	Separate house (large lot)	Separate house (small lot)	Attached dwellings and units	Total
Option 1	105	483	322	910
Option 2	36	757	122	915
Option 3	0	122	197	904
Final option	24	670	416	1,110

FIGURE 1: THE FINAL MASTERPLAN OPTION



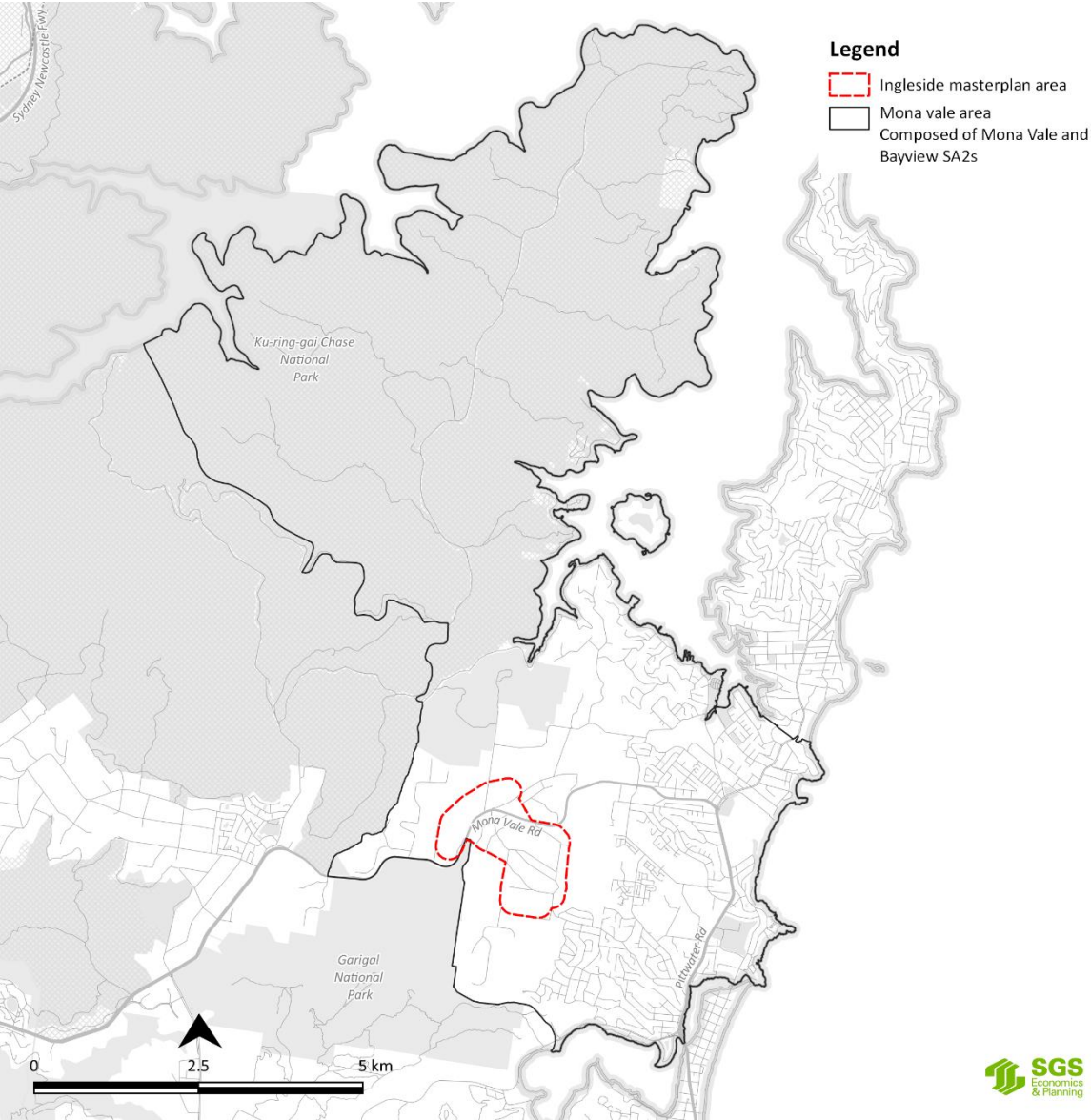
Source: Cox Architecture 2020

2.1 Profile areas

Profiling and statistics in this report are reported at a variety of geographical aggregations. Each includes Ingleside and have been chosen variously to best provide the level of analysis suitable to the various components of these studies. These geographies are summarised as follows:

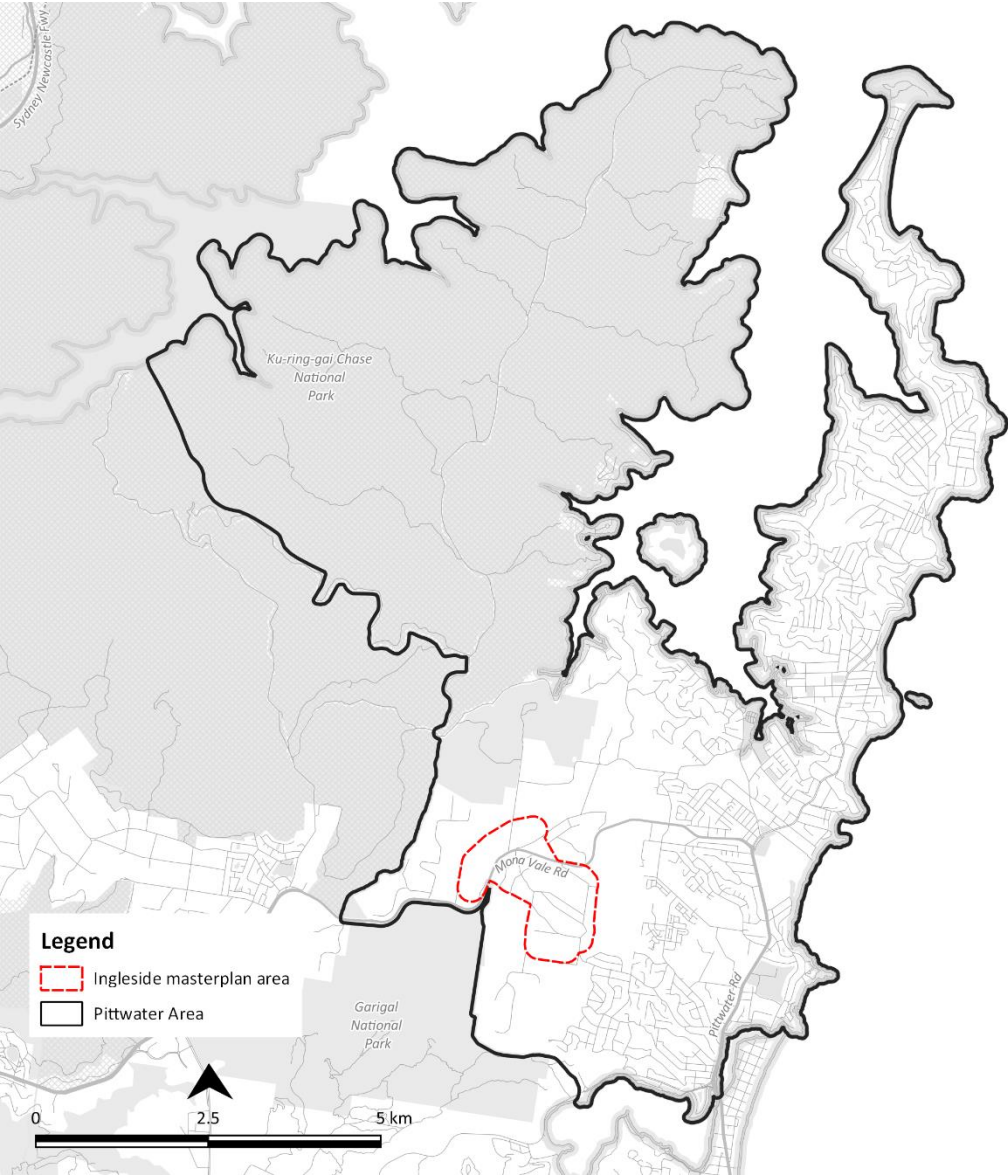
- The Mona Vale area depicted in the figure below which includes Ingleside and other areas within the immediate sub-catchment of Mona Vale,
- The Pittwater area, which includes the Mona Vale area and the remainder of the peninsular north of Mona Vale stretching up to Palm Beach. This is essentially the area covered by the former Pittwater Council,
- The Northern Beaches LGA

FIGURE 2: THE MONA VALE AREA



Source: SGS 2020, ABS 2016

FIGURE 3: THE PITTWATER AREA



3. Demographic Profile

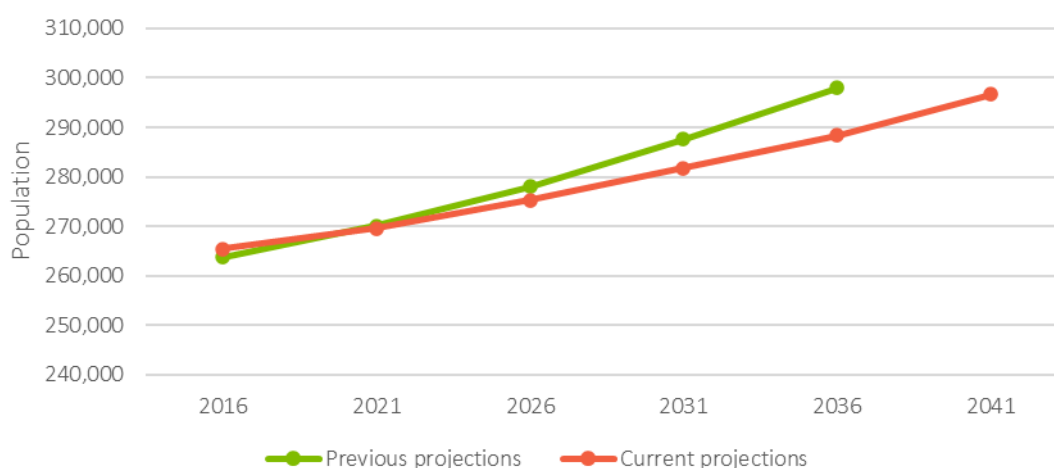
This chapter will provide an overview of the demographic profile of the Northern Beaches, as well as the Pittwater Area and the suburb of Warriewood which contains recent development similar to those that could be built at Ingleside. The demographic profile illustrates the potential population profile of future Ingleside residents.

3.1 Population

Population projections for NSW are released by the Department of Planning, Industry and Environment (DPIE). The table below shows these projections for the Northern Beaches LGA. The current projections were released in late 2019, while the previous set of projections form the basis for work on the Northern Beaches Housing Strategy which is underway. It should be noted that the current projections do not factor in the impact of COVID-19 on population projections as these have not been released.

Under both projections the population of the Northern Beaches is expected to grow in the future. Current projections show the population increasing by 9% or 22,963 between 2016 and 2036. Notwithstanding the lower growth rate in the current projections than previous projections, additional housing development will be needed to house the growing population. Development at Ingleside could fill part, but not all, of the future dwelling demand.

FIGURE 4: POPULATION PROJECTIONS FOR THE NORTHERN BEACHES LGA



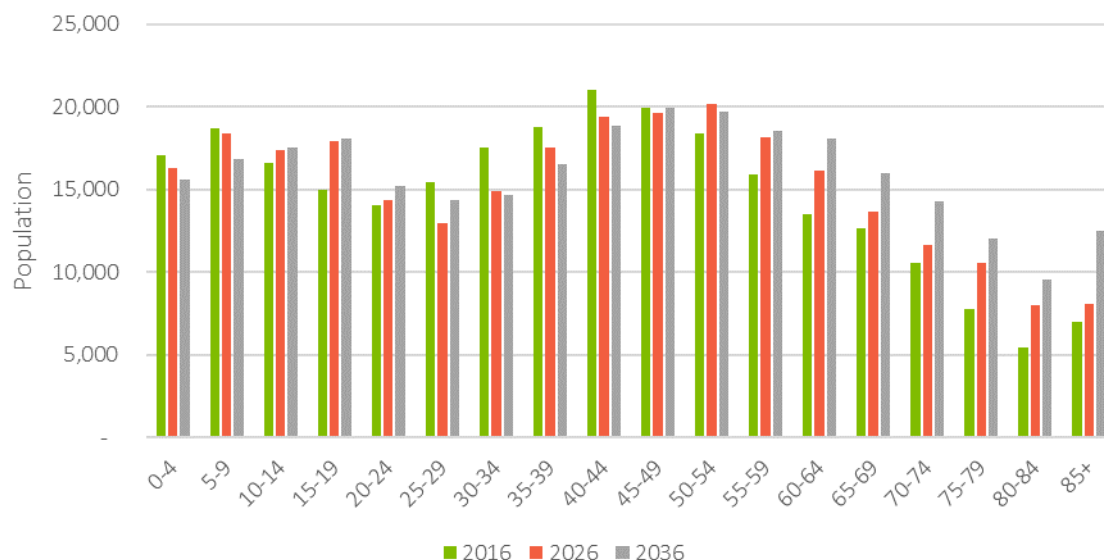
Age profile

The current age profile for the Northern Beaches LGA and the future profile as forecast by DPIE is shown in the figure below. In the future the population of the Northern Beaches is expected to age, with the number of people aged 55+ increasing substantially, while the number of people aged 0-10 and 25-44 decreases.

An aging population creates the need for diverse housing to cater to potential downsizers. Some medium density dwellings at Ingleside could fill this role.

The expected decrease in the number of younger people could limit demand for apartments and for new separate dwellings catering to young families at an LGA-wide level. However, the same dynamic will not necessarily be present in smaller areas like Ingleside, and housing demand modelling presented later in this report shows that there is likely to be some increase in demand for separate houses and apartments in the LGA in the future.

FIGURE 5: FORECAST AGE PROFILE FOR THE NORTHERN BEACHES LGA

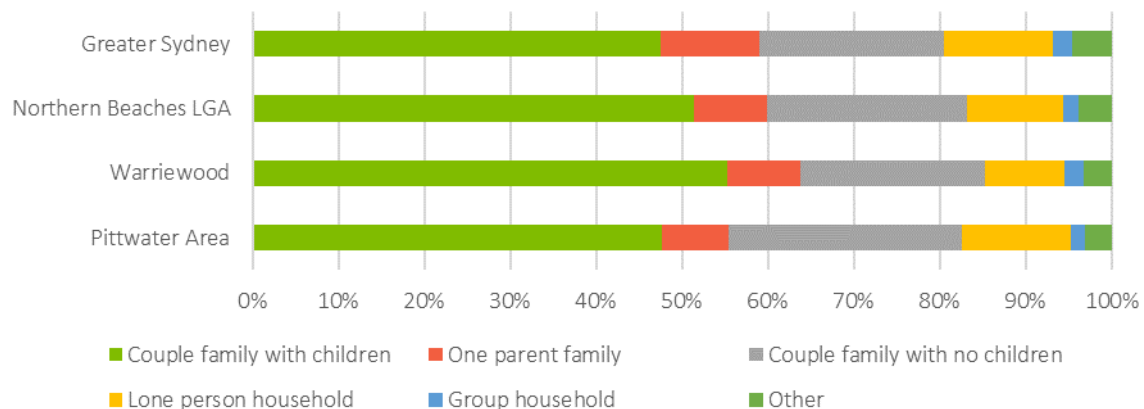


3.2 Household profile

The following figures illustrate the kinds of households that live in separate houses and medium density dwellings, the kinds of dwellings included in the masterplan options at Ingleside. This illustrates what kinds of households are likely to live in Ingleside under these options.

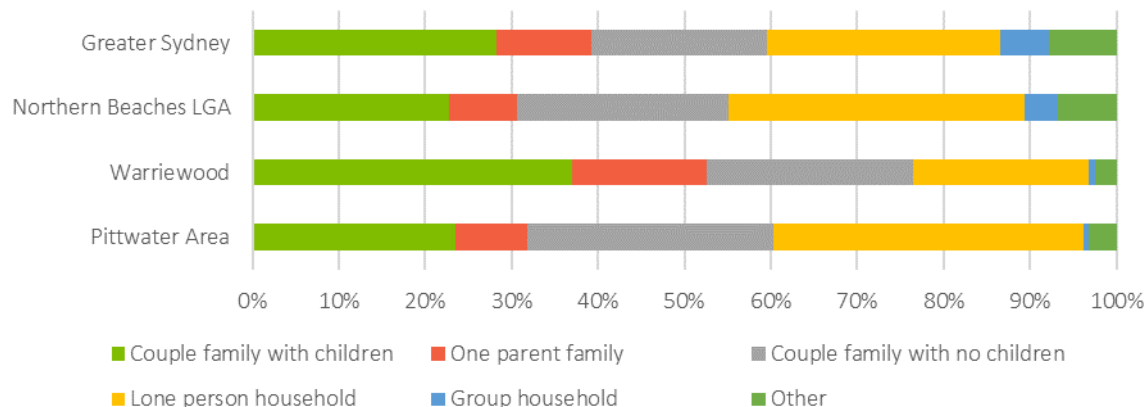
There are a variety of kinds of households that are likely to live in both separate houses and medium density. Generally around half of households living in separate houses are couples with children, with couples without children the next most common. Couples with children are much less common in medium density dwellings, making up between 20-35% of all households depending on the area profiled. In medium density dwellings one parent families, couples without children and lone person households are more common than in separate houses.

FIGURE 6: HOUSEHOLD COMPOSITION OF SEPARATE HOUSES



Source: ABS Census 2016

FIGURE 7: HOUSEHOLD COMPOSITION OF MEDIUM DENSITY DWELLINGS



Source: ABS Census 2016

Warriewood has a higher proportion of couples with children than Greater Sydney, the Northern Beaches or the Pittwater area. This corresponds with young couples and families being relatively likely to move to greenfield housing developments, a dynamic that could be repeated at Ingleside.

The Northern Beaches LGA has a greater proportion of couple with children families than Greater Sydney living in separate houses, and a lower proportion living in medium density dwellings. The household breakdown in the Pittwater Area is similar to the Northern Beaches as a whole for other separate houses and medium density, but Pittwater has a slightly larger proportion of lone person households and couples without children, correspond to its relatively high number of older people.

Given the similarity between the Pittwater and Northern Beaches household breakdowns, and the fact that the Northern Beaches composition for separate houses sits between the extremes of Warriewood and Greater Sydney, the Northern Beaches LGA average has been adopted as a benchmark for likely future demographics in Ingleside. This reflects the expectation that some of the dwellings delivered at Ingleside will have larger lots than those at Warriewood (where small-lot products are common), likely leading to a lower proportion of young families. Using the Northern Beaches LGA as a benchmark also ensures that modelled population results for Ingleside will reflect the assumptions used in SGS's work

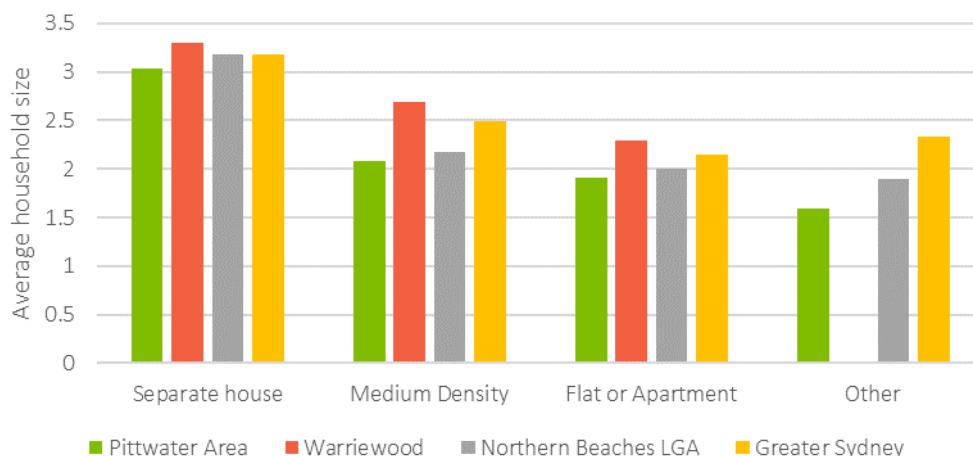
modelling housing capacity for the Northern Beaches as a whole, which forms part of Council’s Housing Strategy.

Housing occupancy

Average household sizes for different dwelling types in benchmark areas are shown in the figure below. Separate houses have the highest average household sizes on average, followed by medium density dwellings and then flats and apartments.

In keeping with its relatively high proportion of couple with children families (which are typically the largest household type in terms of number of people), Warriewood has the highest average household sizes. The Northern Beaches LGA overall and Pittwater area are again similar, with lower household sizes than Warriewood or Greater Sydney.

FIGURE 8: AVERAGE OCCUPANCY FOR DIFFERENT DWELLING TYPES



Source: ABS Census 2016

3.3 Likely population resulting from masterplan

SGS has used the following process to forecast the likely population and demographics that would result from the three masterplan options for Ingleside. In steps 2-5, benchmark data from the Northern Beaches LGA for 2016 has been used to perform calculations, in line with the conclusion in the preceding section that the LGA average is an appropriate benchmark.

1. Start with number of dwellings that can be accommodated in each scenario
2. Use average housing vacancy rates to calculate number of households by dwelling type
3. Use relationship between dwelling type and household type for the Northern Beaches LGA to calculate number of households by household type
4. Use average occupancy rates to calculate number of people by household type
5. Use relationship between household type and age to calculate number of people by age

Resulting populations by dwelling type are shown in the following table.

TABLE 7: EXPECTED POPULATIONS FOR EACH DWELLING TYPE

	Separate house (large lot)	Separate house (moderate lot)	Attached dwellings	Total
Scenario 1 population	301	1,385	817	2,503
Scenario 2 population	406	1,868	310	2,584
Scenario 3 population	362	1,666	500	2,528
Final option population	46	1,942	1,129	3,117

Resulting forecasts by age are shown below. The overall population of the first three options is similar, with between 2,500-2,600 people likely to live in the redeveloped parts of Ingleside. The preferred masterplan option (Option 4) has a higher population estimation of 3,117. This includes people across the age spectrum.

TABLE 8: EXPECTED POPULATION BY AGE

	0-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75+	Total
Scenario 1	182	380	290	282	391	379	263	187	149	2,503
Scenario 2	194	400	298	290	409	393	268	186	146	2,584
Scenario 3	187	388	292	284	398	384	263	184	146	2,528
Final option	225	472	361	352	485	472	329	234	187	3117

Net increase in population

The net increase in population associated with the final option can be calculated by subtracting the existing population in the areas proposed to be redeveloped from the modelled resulting population shown in the above tables. According to the ABS census, there were approximately 419 people living in the areas proposed to be redeveloped in 2016.

TABLE 9: EXPECTED NET INCREASE IN POPULATION BY AGE

	0-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75+	Total
Scenario 1	173	314	224	241	360	288	214	157	114	2,085
Scenario 2	185	334	232	249	378	302	219	156	111	2,166
Scenario 3	178	322	226	243	367	293	214	154	111	2,110
Final option	216	406	295	311	454	381	280	204	152	2,699

Service age groups

Alternative age brackets provide more detail about the expected population likely to need each kind of service. The breakdown shown in the tables below includes people aged 5-11 who are likely to need primary schools and 12-18 who are likely to need secondary schools.

TABLE 10: EXPECTED GROSS INCREASE IN POPULATION BY AGE IN SERVICE AGE GROUPS

	0-4	5-11	12-18	19-24	25-34	35-44	45-54	55-64	65-74	75+	Total
Scenario 1	182	274	239	157	282	391	379	263	187	149	2,503
Scenario 2	194	289	249	161	290	409	393	268	186	146	2,584
Scenario 3	187	280	243	158	284	398	384	263	184	146	2,528
Final option	225	340	298	196	352	485	472	329	234	187	3,117

TABLE 11: EXPECTED NET INCREASE IN POPULATION BY AGE IN SERVICE AGE GROUPS

	0-4	5-11	12-18	19-24	25-34	35-44	45-54	55-64	65-74	75+	Total
Scenario 1	173	237	179	123	241	360	288	214	157	114	2,085
Scenario 2	185	251	188	126	249	378	302	219	156	111	2,166
Scenario 3	178	243	182	123	243	367	293	214	154	111	2,110
Final option	216	303	237	162	311	454	381	280	204	152	2,699

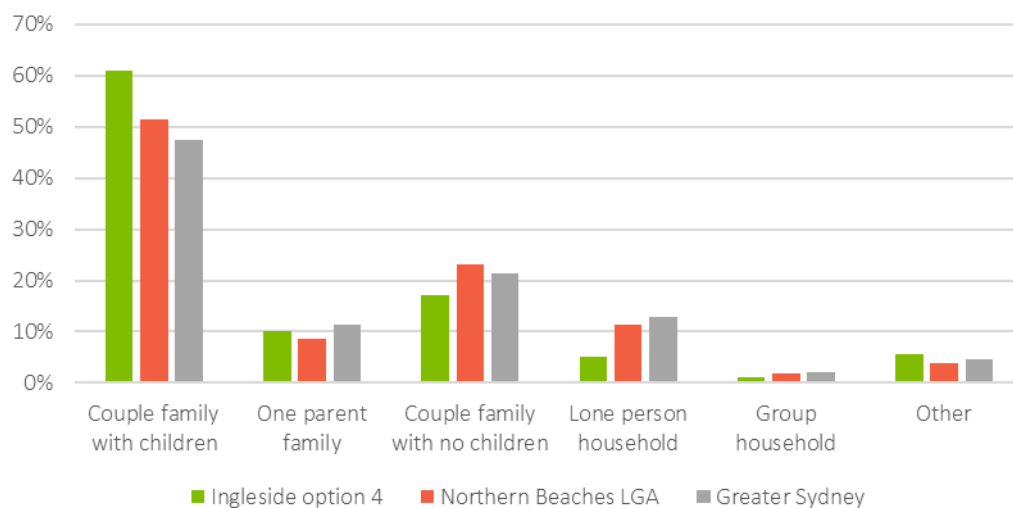
3.4 Likely demographic profile of residents

Age and household profile

The net increase in population in Ingleside in the previous section shows that people of a variety of ages are likely to live in Ingleside, creating the need for services across the age spectrum. More information about the profile of the likely population is provided by the likely household type profile shown in the figure below.

Under the final option for Ingleside, there are likely to be households of all types living in Ingleside. However, by far the most common household type is likely to be couples with children (61%), a much higher proportion than the Northern Beaches and Greater Sydney (51% and 48% respectively). Ingleside is likely to have relatively low proportions of couples without children, lone person households and group households compared to Greater Sydney and the Northern Beaches, and a similar proportion of one parent families to these benchmark areas.

FIGURE 9: LIKELY HOUSEHOLD COMPOSITION OF INGLESIDE AND BENCHMARK AREAS IN 2016



Source: SGS 2021, ABS Census 2016

A high number of couples with children is consistent with the usual profile for a greenfield development area, which usually appeal to families with children and house people moving from closer to the Sydney CBD.

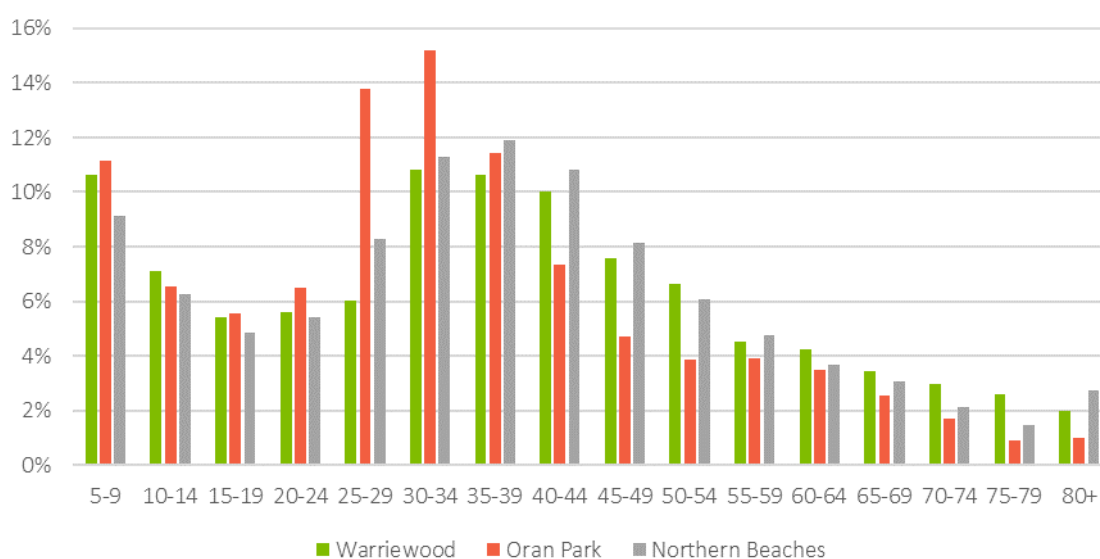
Alongside this demographic profile, it is possible to obtain more information about who is likely to move to Ingleside by considering who is moving to Warriewood, which is also a greenfield development area and is likely to have a similar demographic profile to Ingleside in many ways. The age breakdown of people who reported moving to a dwelling in Warriewood in the last five years in the 2016 census is shown in the figure below. This is compared to the same age breakdown for a more traditional greenfield development area on Sydney's urban fringe (Oran Park) and to the Northern Beaches LGA as a whole.

This chart reveals that Warriewood attracts people across the age spectrum. In line with the demographic prediction for families to be very common in Ingleside, a relatively high proportion of children aged 5-14 were reported to have moved to Warriewood with their families between 2011-

2016. However, people aged 25-29 and 30-34 make up a much smaller proportion of people who moved to Warriewood than who moved to Oran Park, a traditional growth suburb. By contrast, people who had moved to Warriewood were much more likely to be aged 40-55. This illustrates that young first home buyers are less likely to be able to afford a house in Warriewood (or Ingleside in the future) compared to established families who may be buying their second home.

Warriewood also attracted a relatively high proportion of older people aged 55-75 when compared with Oran Park and the Northern Beaches as a whole, illustrating that people are more likely to downsize to Warriewood (and to Ingleside in the future) than to a traditional growth suburb or the Northern Beaches as a whole. However, people aged 55+ are still likely to make up a small proportion of all people who move to Ingleside.

FIGURE 10: LIKELY HOUSEHOLD COMPOSITION OF INGLESIDE AND BENCHMARK AREAS IN 2016



Source: ABS Census 2016

Where people move from

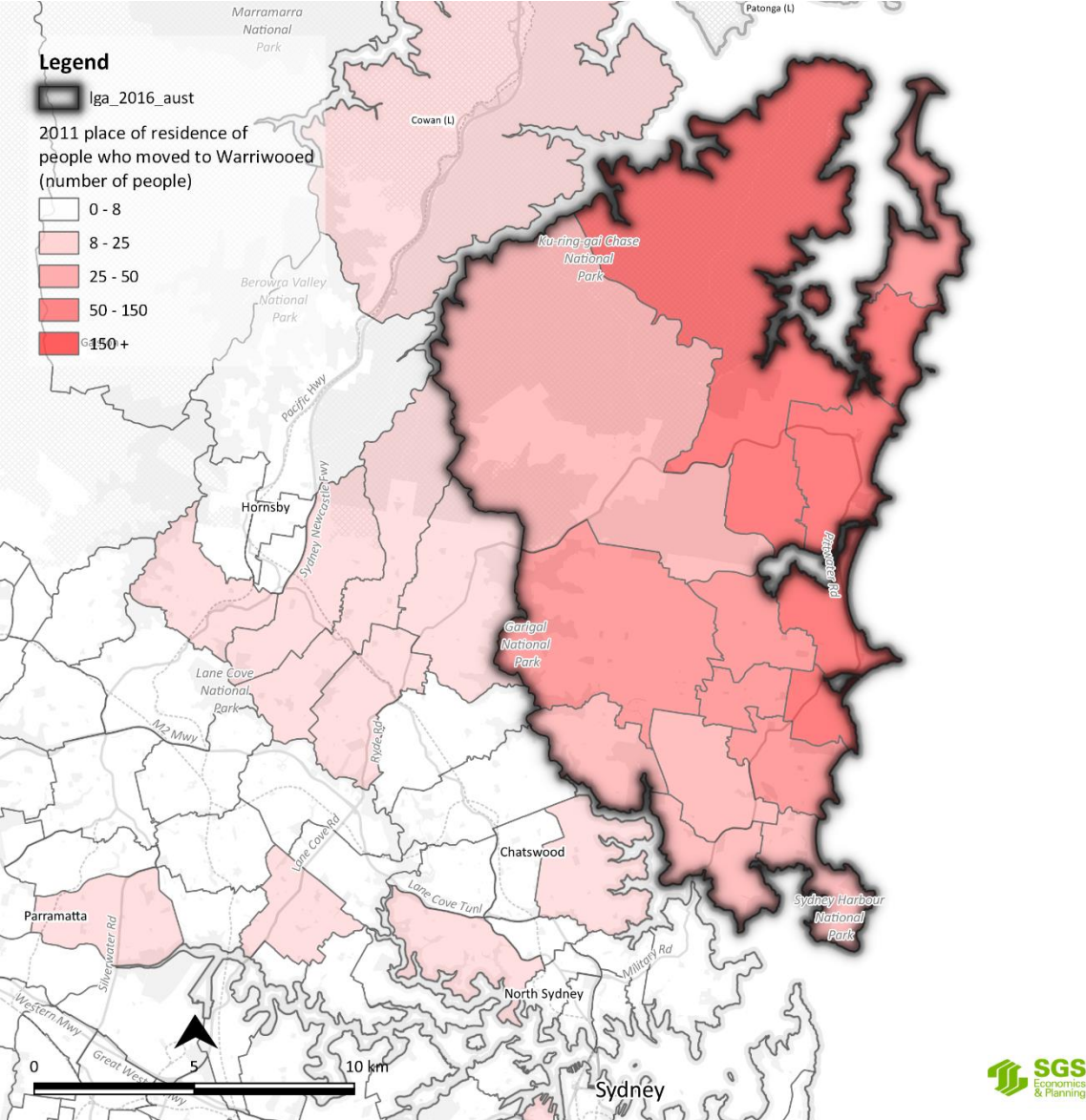
The figure overleaf shows the 2011 place of residence of people who reported moving to the suburb of Warriewood between 2011-2016. This shows the market influence area of Warriewood, which is likely to be similar to that of Ingleside.

The most common places that people move to Warriewood from are nearby parts of the Northern Beaches, including the SA2s of Warriewood – Mona Vale, Bayview – Elanora Heights (which includes Ingleside), Newport – Bilgola, Narrabeen – Collaroy and Dee Why – North Curl Curl. Together, these SA2s are the source for 55% of migration to Warriewood from within Australia. The rest of the Northern Beaches are the next most common places people moved from, with the Northern beaches as a whole the source of 76% of migration to Warriewood from Australia. A much smaller number of people moved from other parts of Greater Sydney, particularly the Upper North Shore (17% of migration from within Australia), while 7% of people moved to Warriewood from the rest of NSW or interstate.

In sum, these statistics and the figure overleaf show that Warriewood, and by extension Ingleside in the future, attracts mostly people from nearby and from the rest of the Northern Beaches. The people

moving to Warriewood from other parts of the Northern Beaches are likely to be those for whom a new dwelling in Warriewood more closely aligns with their needs, whether for more space for their family, a desire for a new dwelling, or those who are downsizing.

FIGURE 11: WHERE PEOPLE WHO MOVED TO WARRIEWOOD BETWEEN 2011-2016 LIVED PREVIOUSLY



Summary – likely demographic profile

People of all ages and from all household types are likely to live in Ingleside in the future.

The largest group of people moving to Ingleside are likely to be established families containing parents aged 30+ (and often 40+) who may be buying a second home. Downsizers will make up a smaller proportion of the population, followed by other demographic groups.

Housing in Ingleside is likely to attract mostly people from other parts of the Northern Beaches for whom a new dwelling in Ingleside is better aligned to their needs.

4. Economic and market profile

This chapter provides an overview of the economy and property markets of the Northern Beaches LGA and of the Mona Vale centre. This is intended to frame potential economic opportunities and the economic role of Ingleside.

Ingleside is not currently developed in an urban sense, and so there is limited economic activity. The nearest major centre to Ingleside is Mona Vale. As such, the appropriate future role of Ingleside will be influenced by the economy and development aspirations of Mona Vale, which are summarised in the profile of the Mona Vale centre in this chapter.

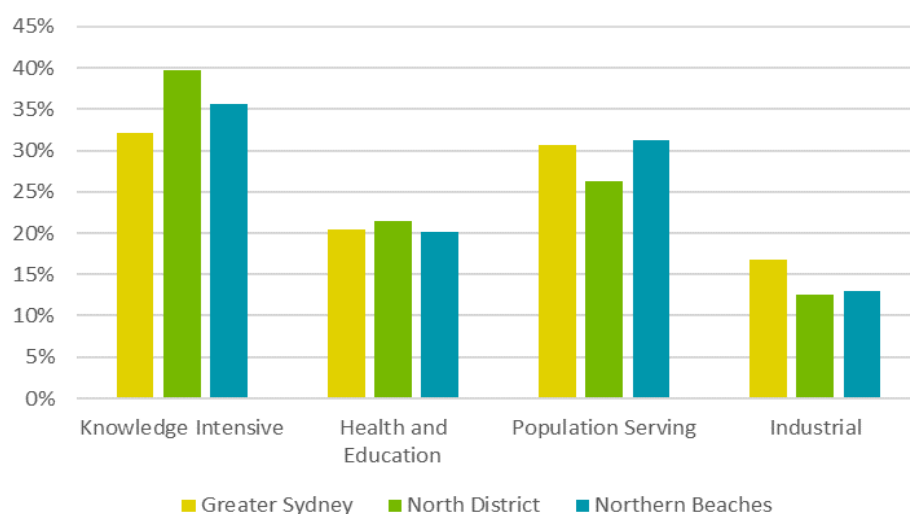
4.1 Industry profile and specialisation

Broad industries of employment

Economic data in this section is grouped by the broad industry categories used by the Greater Sydney Commission (a list of the correspondence between industry sectors as classified by the Australian Bureau of Statistics and these broad categories is provided in Appendix A).

A high proportion of the Northern Beaches' residents work in population-serving industries compared to residents of Greater Sydney and the North City District. The proportion of employment in knowledge intensive industries in the Northern Beaches is lower than the North District average, but higher than the Greater Sydney average. A low proportion of residents work in industrial sectors (see Figure 12 below).

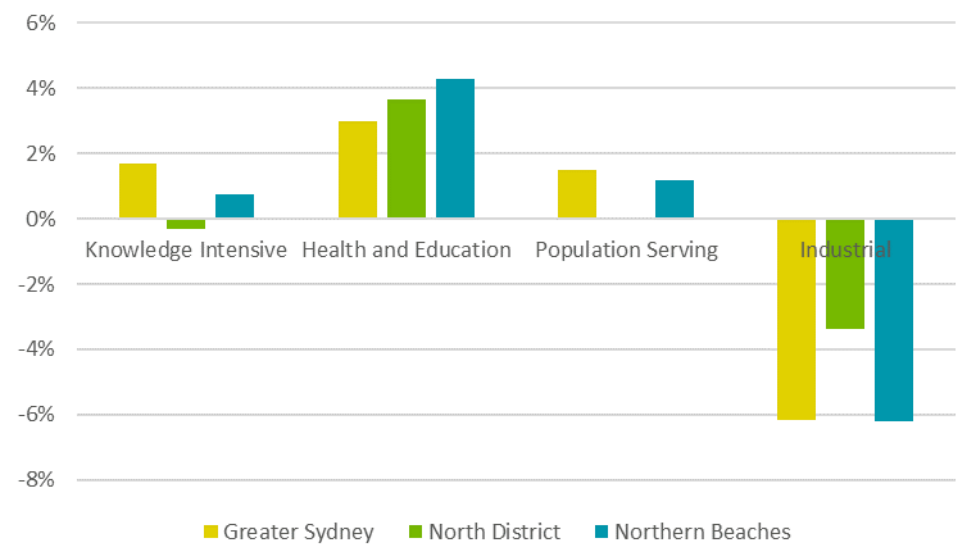
FIGURE 12: INDUSTRY OF EMPLOYMENT BY PLACE OF RESIDENCE (2016)



Source: ABS Census 2016

The Northern Beaches experienced a higher rate of growth in recent years in health and education than Greater Sydney or the North District, with a slight decline in knowledge-intensive employment across the LGA. The industrial sector has declined sharply, although similarly to trends seen elsewhere in Sydney (see Figure 13 below).

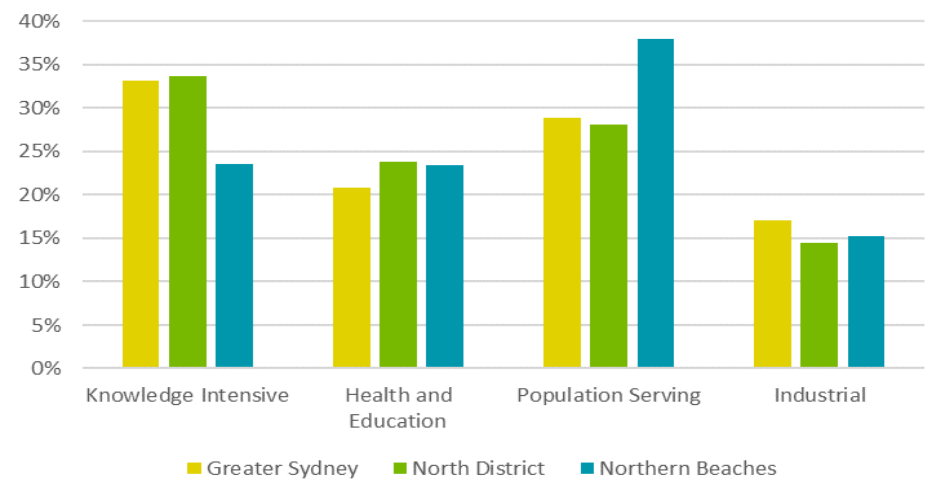
FIGURE 13: COMPARATIVE PROPORTIONAL CHANGE INDUSTRY OF EMPLOYMENT (POW) (2006-2016)



Source: ABS Census 2016 (TableBuilder Pro)

The industry of employment of Northern Beaches residents (shown in Figure 12) can be contrasted with the breakdown for jobs within the Northern Beaches and benchmark areas, shown in Figure 14 below. Knowledge intensive jobs are under-represented on the Northern Beaches by around 10% compared to Greater Sydney and the North District. There are also relatively few industrial jobs. By contrast, health and education and population serving jobs are more common in the Northern Beaches than Greater Sydney (population serving jobs much more so).

FIGURE 14: COMPARATIVE INDUSTRY OF EMPLOYMENT (POW) (2016)



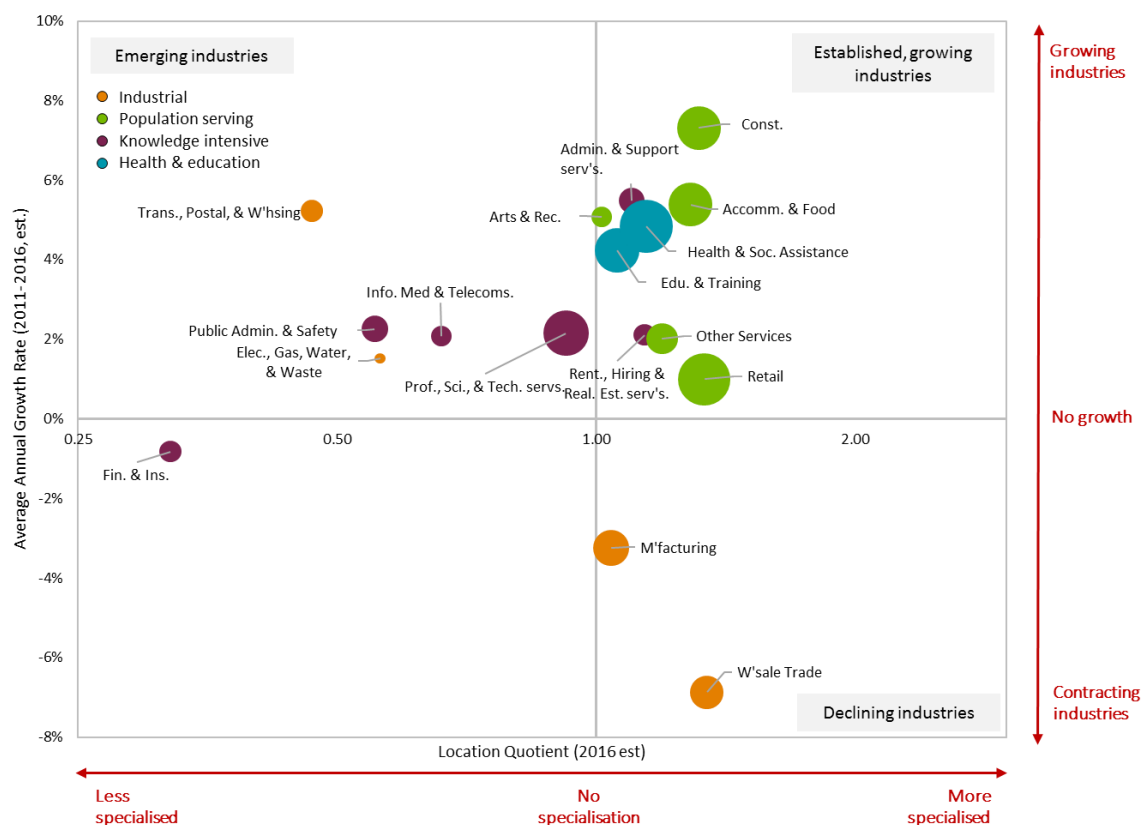
Source: ABS Census 2016 (TableBuilder Pro)

Together, Figure 12 and Figure 14 paint a picture of the economy of the Northern Beaches LGA. The employment profile of residents is not greatly dissimilar to that of Greater Sydney as a whole, with slightly more people employed in knowledge intensive industries. However, there are relatively few knowledge intensive jobs in the Northern Beaches, meaning people must commute elsewhere. This is due in part to the Northern Beaches not having a significant commercial centre. By contrast, population serving jobs are over-represented, meaning that the Northern Beaches economy has a local focus on service for the population.

Northern Beaches Industry specialisation

The figure below provides a more detailed picture of the economic specialisation of the Northern Beaches economy, in the form of a location quotient. Industries with a higher location quotient in this figure are more specialised in the Northern Beaches compared to Greater Sydney, and vice versa. Industries that employ more people are shown with a larger dot.

FIGURE 15: NORTHERN BEACHES LOCATION QUOTIENT – COMPARED WITH GREATER SYDNEY (2011-2016)



Source: SGS 2020, ABS Census 2016

Overall, the Northern Beaches is specialised in health care, education, and population serving industries like accommodation and food services, retail and other services. Those knowledge intensive sectors which are specialised in the Northern Beaches have more of a population serving focus than those which are not (for example, rental, hiring and real estate services is specialised, while financial and insurance services is not). Several of the population serving and health and education sectors are

growing more strongly than knowledge intensive sectors, while the industrial sectors of manufacturing and wholesale trade are contracting.

Implications for Ingleside

This economic portrait suggests that there may be opportunities to provide spaces for knowledge intensive employment for local residents. However, the lack of concentration of knowledge intensive employment in the Northern Beaches means that businesses find other locations more attractive to locate in, limiting opportunities in parts of the Northern Beaches like Ingleside which are relatively far from other centres. It will instead be important in the future to concentrate aspirations for more jobs within existing centres like Mona Vale and Brookvale to increase their economic competitiveness and prospects.

4.2 Mona Vale centre profile

Within the Northern Beaches LGA, Mona Vale is Ingleside's nearest strategic centre. Its largest industry to 2036 will be Retail Trade (1,233 jobs), followed by Health Care and Social Assistance (1,068) and Professional, Scientific and Technical Services (855 jobs).

Employment by Broad Industry Categories (BICs) reflects the growing presence of the Population Serving sector, closely followed by Knowledge Intensive and Health and Education sectors (see Table 12 below).

Planning for the inclusion of retail or other population-serving land uses within the Ingleside precinct should be careful so as not to provide unnecessary competition which undermines the strength of this sector in Mona Vale.

This is particularly important given that a key challenge identified in the Northern Beaches Employment and Centres Strategy was the current inability of Mona Vale to fulfill its role as a strategic centre, with infrastructure investment concentrated on Mona Vale with the aim of remedying this issue. Therefore, its primacy in the hierarchy of local centres should be a key consideration.

TABLE 12: MONA VALE EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

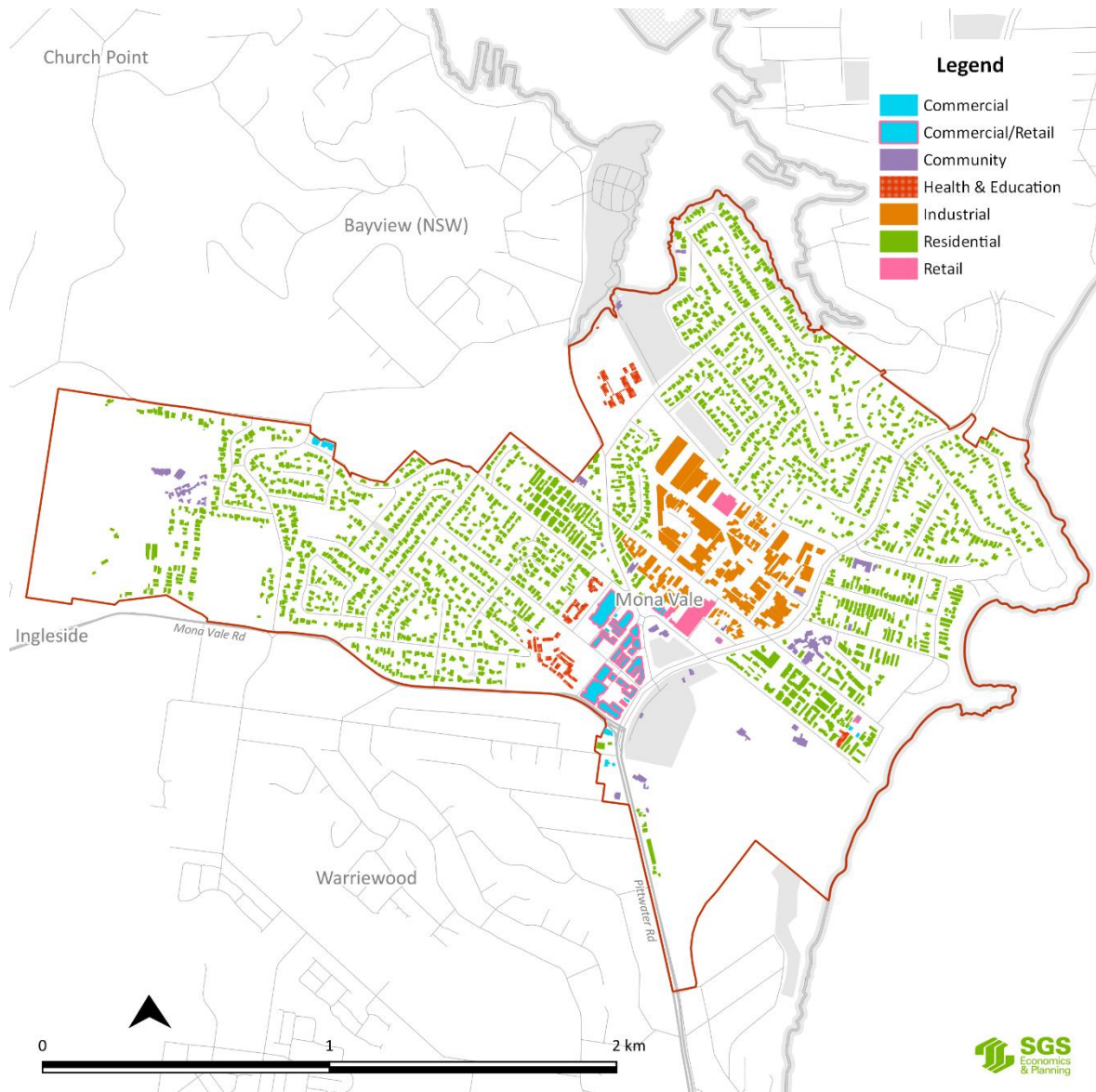
BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	1,320	1,837	516	39%
Health and Education	1,051	1,479	429	41%
Population Serving	2,274	2,859	584	26%
Industrial	874	710	-165	-19%

Source: Transport for NSW T2P2016 v1.51 (TPA) projections

Floorspace

Mona Vale contains large-format employment uses across both its business and industrial zones. Smaller-scale businesses include auto shops, other repair and maintenance facilities, and a mix of other types of businesses such as domestic appliance and electronic repair shops.

FIGURE 16: CENTRE FLOORSPACE PROFILE – MONA VALE CENTRE



Source: SGS 2020 using PSMA Geoscape dataset

Industry specialisation

Figure 17 illustrates the economic specialisations by industry within the Mona Vale strategic centre compared to the North City District.

Mona Vale is largely specialised in 'Other Services', including auto repair and hair and beauty, although the size of this industry is small relative to Retail Trade. Several other population serving industries have low levels of specialisation in Mona Vale compared to the North City District, such as Accommodation and Food Services, and Arts and Recreation Services. Professional, Scientific and Technical Services is the largest Knowledge Intensive industry in Mona Vale however, it is not specialised compared to the North District, showing the need for additional economic development if Mona Vale is to fill a more important role as a strategic centre.

Again, non-residential land uses included within the Ingleside Precinct should not serve to detract from Mona Vale's current economic specialisations. While some population-serving uses may be appropriate, Mona Vale should remain the focal point of these activities.

FIGURE 17: MONA VALE ECONOMIC SPECIALISATION – COMPARED WITH NORTH DISTRICT (2011-2016)



Source: SGS 2020 based on ABS Census 2016

Implications for Ingleside

While Mona Vale is Ingleside's nearest strategic centre, and contains floorspace, services and jobs from a variety of industries, it is not filling a role as a major commercial centre with specialisation in high value-adding industries like profession, scientific and technical services. Instead it is specialised in

population services beyond the level of the Northern Beaches as a whole (which as noted in Section 4.1 is also specialised in population services). The strongest prospects for economic success for Mona Vale, and by extension the Pittwater area, is for economic development to be concentrated in Mona Vale if possible, to counteract its lack of an outward-facing economic focus.

Any employment-generating development in Ingleside beyond what is necessary to meet the needs of the local community would create the risk of detracting from the needed economic focus of the area on Mona Vale.

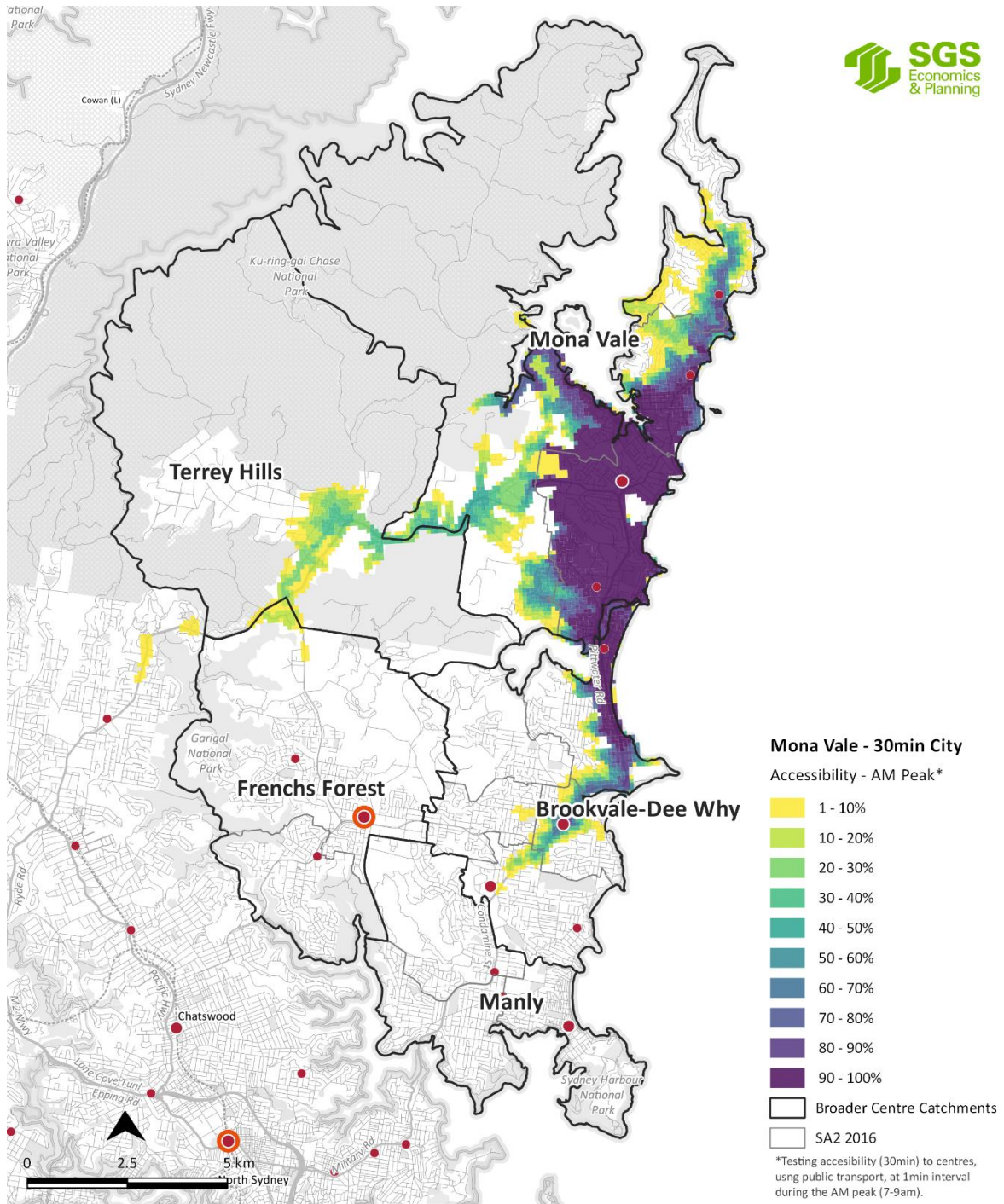
4.3 Accessibility

The figure below depicts the 30-minute public transport catchment of the Mona Vale centre during the morning peak, including the proportion of the peak period during which Mona Vale can be reached within 30 minutes. This figure quantifies the 30 minutes city aspirations in the North District Plan.

Parts of Ingleside are accessible to Mona Vale within 30 minutes by public transport between around 10%-40% of the morning peak period. As such, Ingleside is within the 30-minute city catchment of the Mona Vale centre, but service frequency is not high enough to provide short journey times no matter when people leave.

This mapping positions Ingleside thoroughly within the area of influence of the Mona Vale strategic centre by public transport accessibility as well as spatial proximity. People living in Ingleside in the future would be able to travel to Mona Vale by public transport within a reasonable travel time to access employment and services.

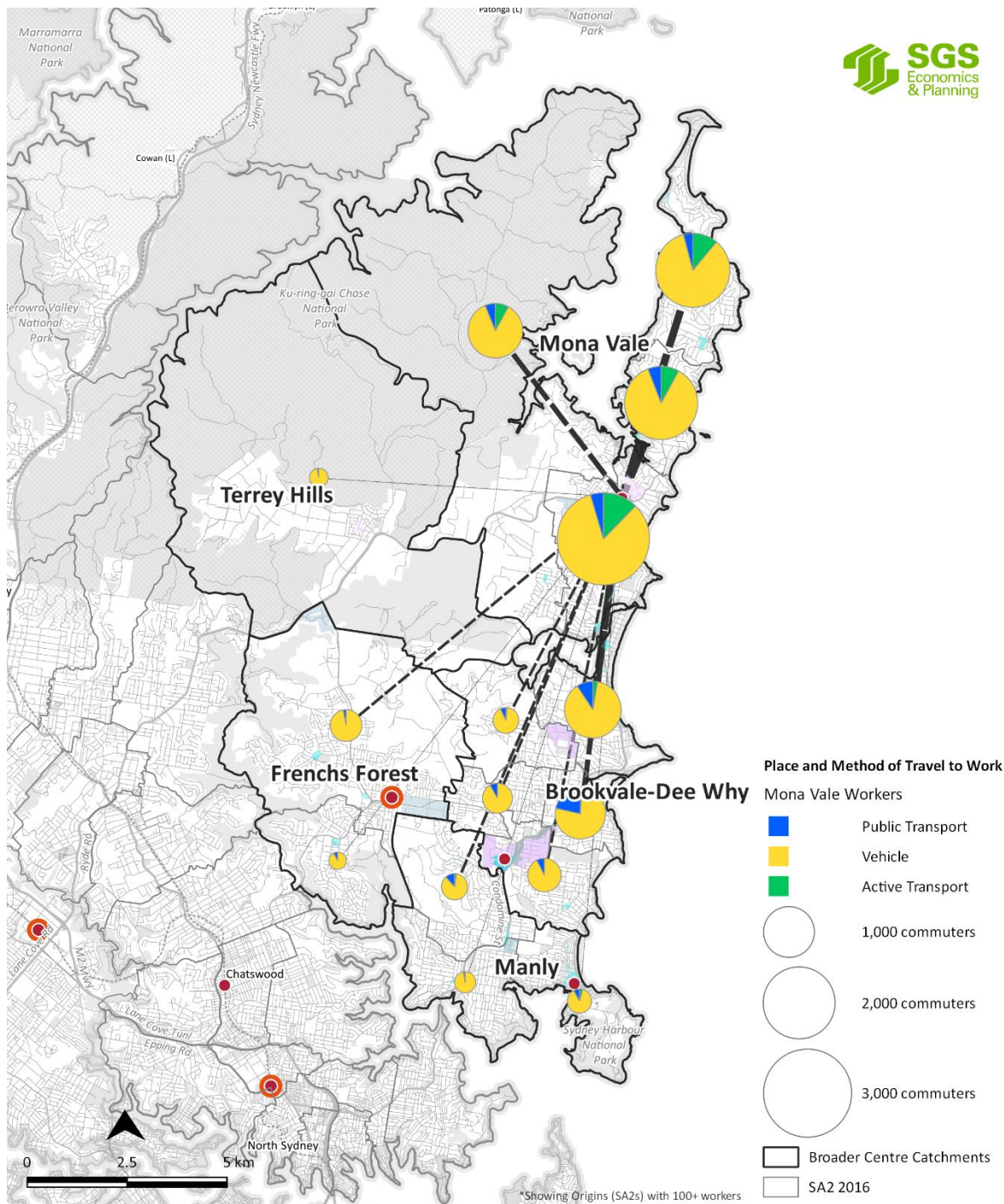
FIGURE 18: 30 MIN AM PEAK TRAVEL TIME BY PUBLIC TRANSPORT FROM MONA VALE



Source: SGS 2020 using Transport for NSW 2018 GTFS dataset

Where people are travelling from to get to Mona Vale for work and how they are travelling is depicted in the figure below. This figure shows that despite its status as a strategic centre, Mona Vale has a generally local labour catchment, with few people travelling from outside the Northern Beaches or even from the southern parts of the Northern Beaches. Many people from the immediate surrounds of Mona Vale travel to Mona Vale for work, including from the SA2 which includes Ingleside, although the private vehicle mode share is much higher than the public transport and active transport mode shares.

FIGURE 19: ORIGIN AND MODE SHARE FOR PEOPLE TRAVELLING TO MONA VALE FOR WORK

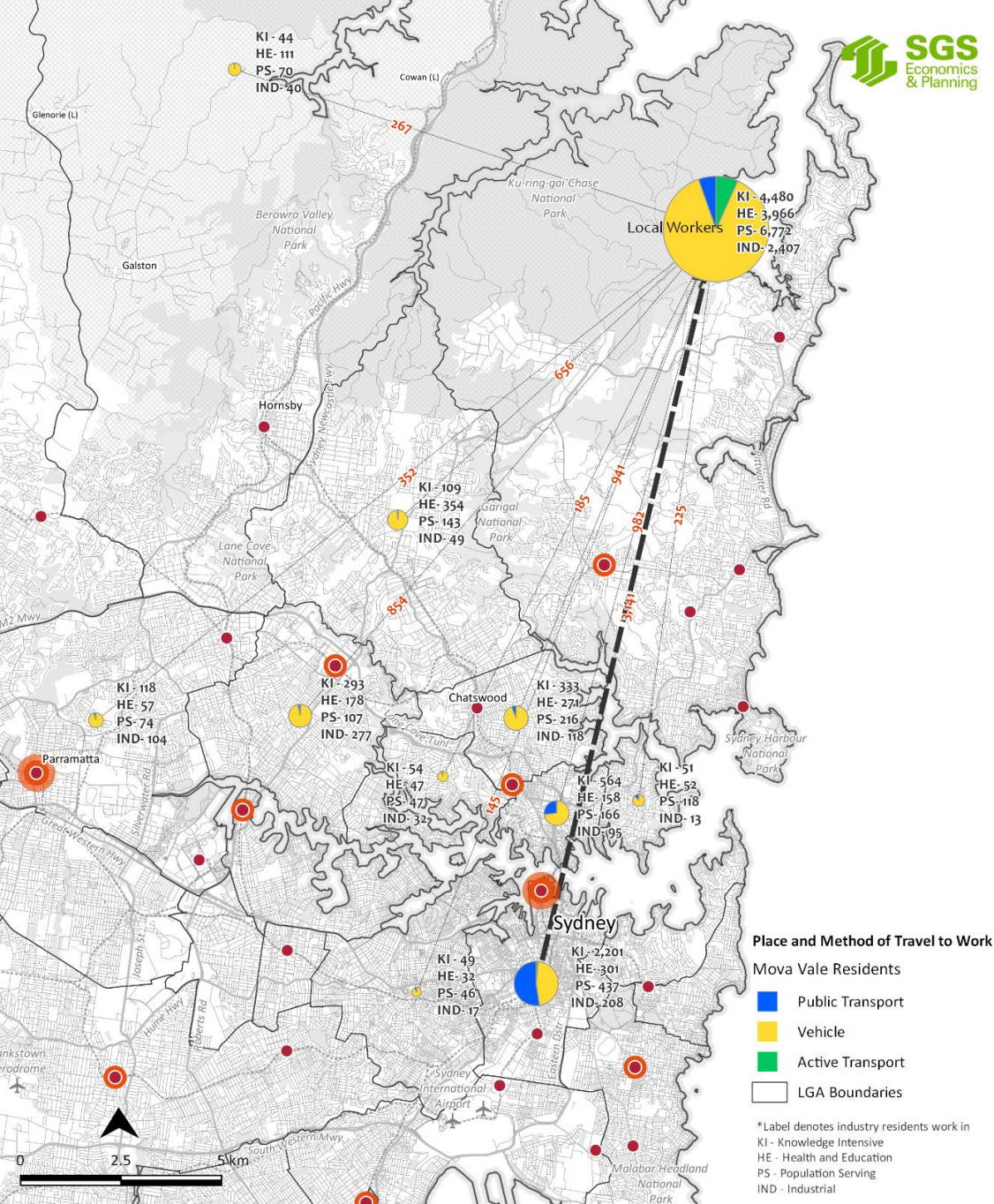


Source: ABS Census 2016

Where people from the Mona Vale area travel to for work, and how they travel, is shown in the following figure. This is the converse to the figure above, which shows the origins to trips to Mona Vale, while the figure below focuses on trips from Mona Vale.

Most journeys to work from the Mona Vale area are to the Northern Beaches LGA and by private vehicle, followed by trips to the Sydney CBD (mostly by public transport). There are a small number of trips to other nearby LGAs.

FIGURE 20: ORIGIN AND MODE SHARE FOR TRIPS TO WORK ORIGINATING IN MONA VALE

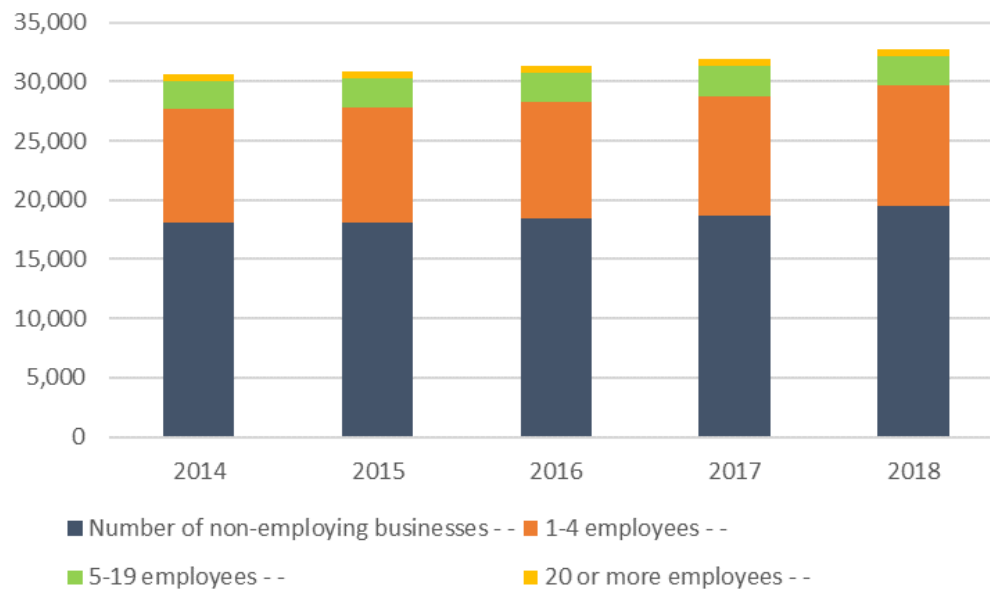


Source: ABS Census 2016

4.4 Business profile

90% of businesses within the Northern Beaches LGA have fewer than five employees, while only 2% have more than 20 employees (see Figure 21). This has a significant influence over the type of floorspace demanded within the LGA. In general, small office spaces are likely to be demanded, while larger consolidated office space may not be as favoured.

FIGURE 21: SIZE OF BUSINESSES, NORTHERN BEACHES, 2014-2018



Source: ABS, 2019 Economy and Industry, Local Government Area, 2011-2018

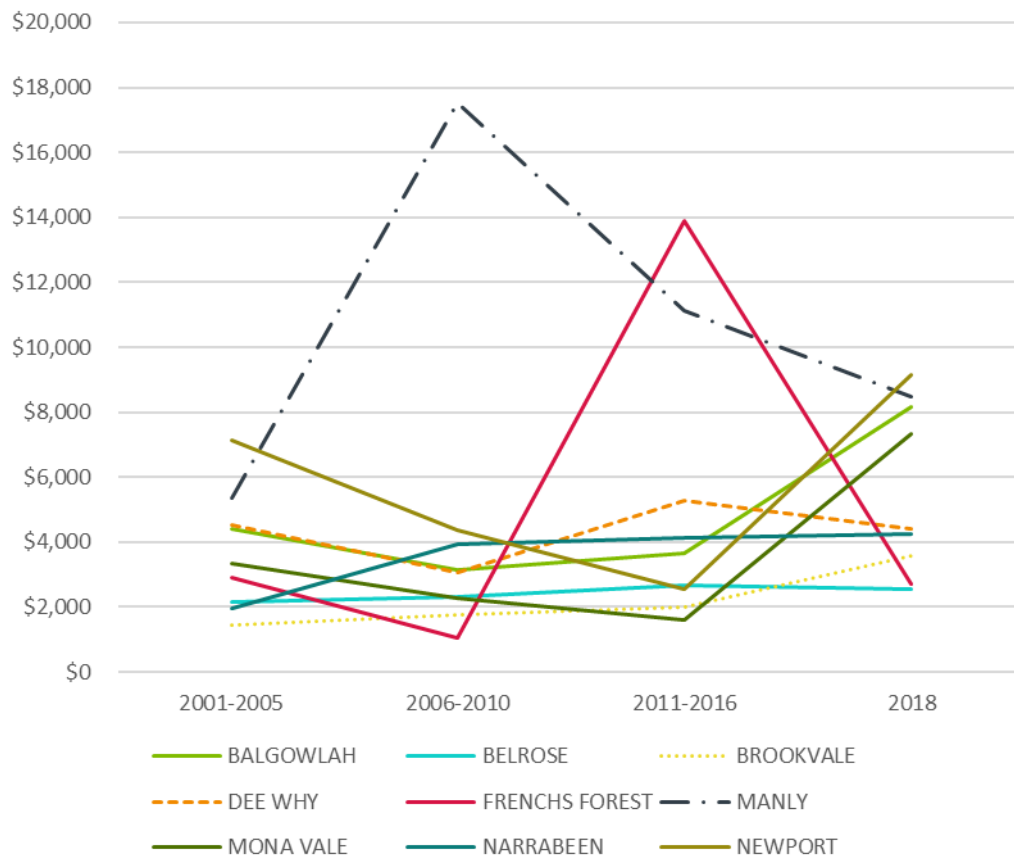
Within Ingleside, there may be scope for small office spaces or co-working spaces to cater to small businesses owned by or catering to Ingleside residents.

4.5 Commercial property market

Commercial market

Median commercial property sales for the precincts within the Northern Beaches are shown below. Median prices assist in removing the large distortions in the data, though given the data is being analysed at a precinct level, it is still subject to large fluctuations. Centres in the northern part of the Northern Beaches like Mona Vale and Newport have experienced an increase in land prices from 2011-2016 to 2018.

FIGURE 22: COMMERCIAL PROPERTY VALUES (\$/SQM) 2001-2018



Source: NSW Valuer-General, 2019

Vacancies

As of August 2019, there were approximately 470 sites currently for commercial or retail lease across the Northern Beaches LGA, with 26 in Mona Vale and 36 in Warriewood (see below). For comparison, Dee Why recorded 97 vacancies across commercial and retail, while Brookvale recorded 150. The lower values for Mona Vale and Warriewood are partly related to the reduced amount of activity in these centres.

TABLE 13: VACANCIES (NO.) BY TYPE – MONA VALE AND WARRIEWOOD (AUG 2019)

Precinct	Commercial	Retail	Industrial	Total
Mona Vale	13	6	7	26
Warriewood	23	-	13	36

Source: SGS Economics and Planning, 2019; Realcommercial, 2019

Table 14 breaks down the vacancies by category and the estimated average price per sqm by the precinct. Within Mona Vale, prices per sqm for vacant commercial and retail premises are close to the LGA average. While the commercial floorspace price is slightly above average, the retail price is slightly below average. Floorspace rents are somewhat lower in Warriewood than Mona Vale.

There are multiple centres not shown in the table below with lower floorspace rents than Mona Vale for both commercial and retail space, although there are also centres (like Avalon and Manly) with much higher prices. Overall, this data shows that Mona Vale is performing moderately well in terms of attractiveness of commercial and retail space, but is not viewed as a premium destination like other more attractive centres.

TABLE 14: VACANCIES BY PRICE (\$/SQM) – MONA VALE AND WARRIEWOOD (AUG 2019)

Precinct	Commercial	Retail	Industrial
Mona Vale	\$532	\$666	\$305
Warriewood	\$476	-	\$252
<i>Average Northern Beaches</i>	<i>\$500</i>	<i>\$775</i>	<i>\$315</i>

Source: SGS Economics and Planning, 2019; Realcommercial, 2019

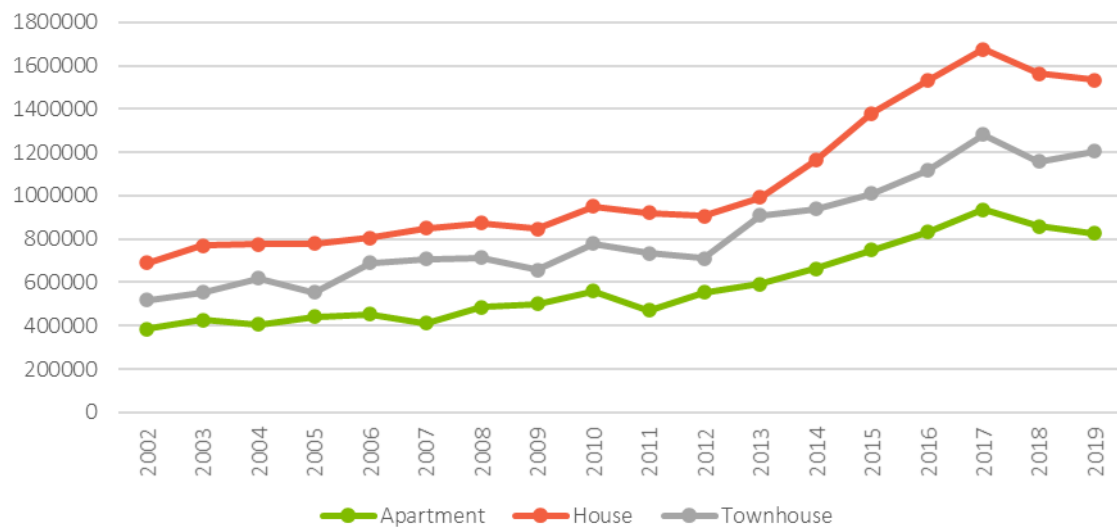
4.6 Residential property market

Residential sales

Residential sale prices have been analysed by SGS using the Bulk Property Sales dataset released by the NSW Government, which includes every property sale in the state. Housing typologies have been identified for sales based on land zone, whether the property is strata subdivided, the dwelling mix in the associated small area as reported in the ABS census, and the housing density. This assignment is approximate, but accurate enough to report sale statistics by dwelling price for aggregated areas.

Median residential sale prices since 2002 for the Mona Vale Area are shown in the figure below. Houses are generally more expensive than attached dwellings, which are more expensive than apartments. Prices for all of these dwelling types increased substantially between 2011-2017, before decreasing slightly since then.

FIGURE 23: MEDIAN DWELLING SALE PRICES IN THE MONA VALE AREA



Source: SGS 2020, NSW Valuer General *Bulk Property Sales Information*

More detail on the variation of price within the LGA is shown in the table below, which lists median prices for 2019 (the most recent complete year of data) in the LGA as a whole, the Mona Vale Area which includes Ingleside and for Warriewood, which was more recently developed and could be considered a precedent for the kind of development likely to occur in Ingleside.

Median prices in the Mona Vale Area and Warriewood are similar, and generally slightly lower than the median across the Northern Beaches as a whole. However, these prices are still high when compared to Greater Sydney, for which the ABS identifies the median house price as of the June 2020 quarter as \$925,000, and the median attached dwelling or apartment price as \$718,000¹. The high prices in the Mona Vale area and Warriewood show that these are viewed as attractive areas to live, but have the potential to decrease affordability for first home buyers.

TABLE 15: 2019 MEDIAN DWELLING SALE PRICES

Location	House	Townhouse	Apartment
Northern Beaches LGA	1,700,000	1,204,000	900,000
Mona Vale Area	1,533,000	1,205,000	825,000
Warriewood	1,502,000	1,010,000	825,000

Source: SGS 2020, NSW Valuer General *Bulk Property Sales Information*

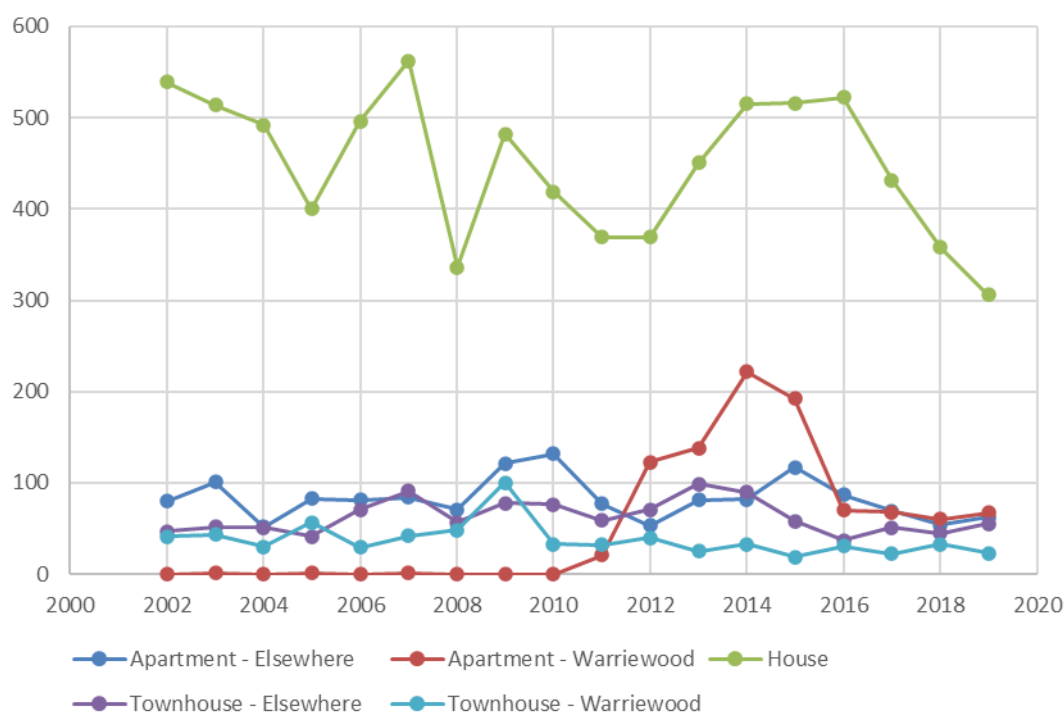
The number of dwelling sales by dwelling type in the Mona Vale area are shown in the figure below, with townhouses and apartments separated into Warriewood and elsewhere. Houses consistently had the most sales, corresponding with houses being the most common kind of dwelling. However, there is

¹ ABS 2020 *Residential Property Price Indexes: Eight Capital Cities*

also a consistent market for sales of apartments and attached dwellings, with around 170 apartments and 75 attached dwellings sold each year on average.

New dwellings in Warriewood make up a large part of the market for apartments and attached dwellings, particularly for apartments since 2012. However, the number of sales in Warriewood has declined somewhat since the peak, possibly reflecting new dwellings being sold as they came onto the market as new stock and the development now mostly completed. This opens up space for Ingleside to fill this established space in the local market in the medium term, notwithstanding the likely decrease in population growth and development rates as a result of COVID-19.

FIGURE 24: APPROXIMATE NUMBER OF DWELLING SALES IN THE MONA VALE AREA



Source: SGS 2020, NSW Valuer General *Bulk Property Sales Information*

Housing preferences

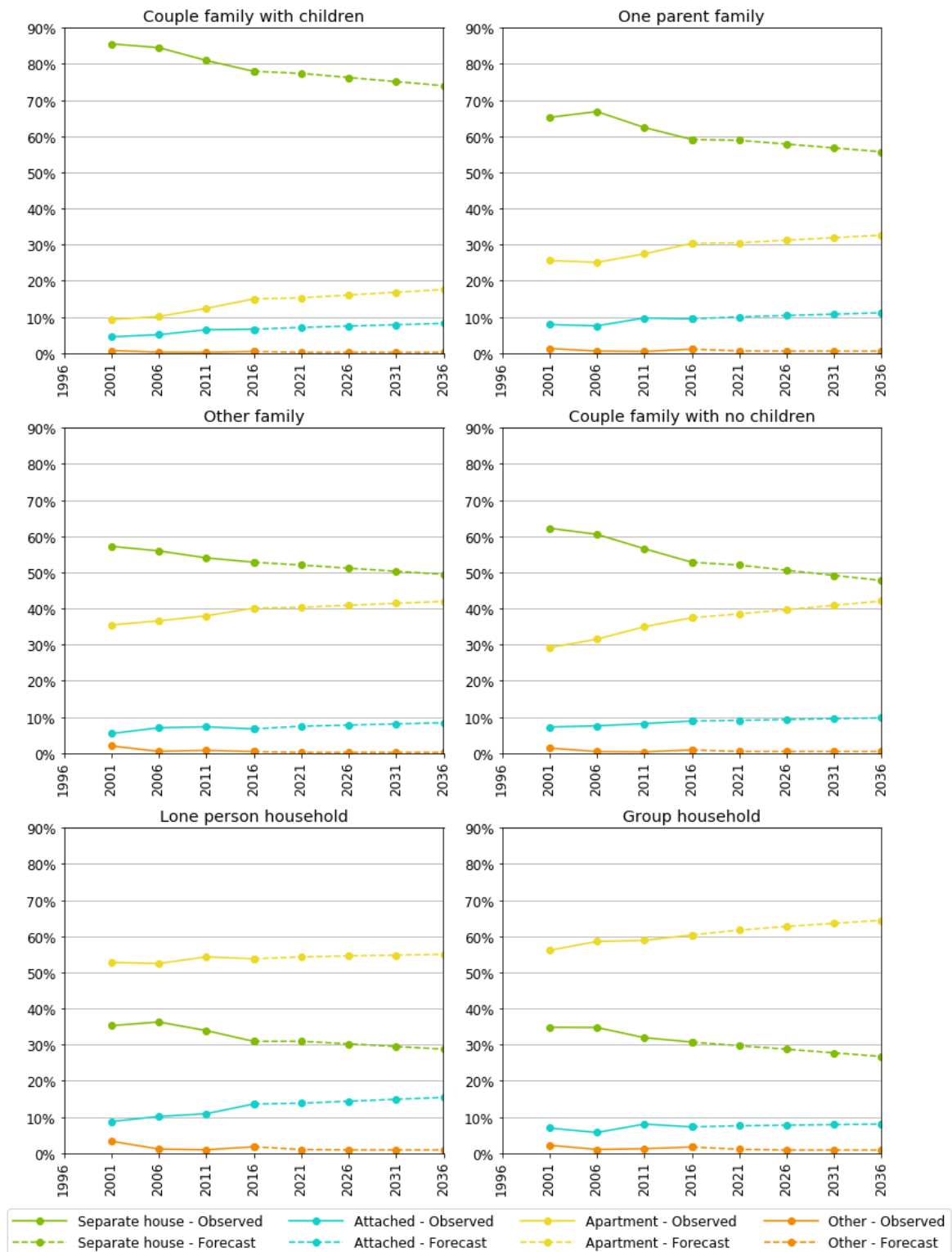
Revealed housing preferences record what kind of dwelling different kinds of households have chosen to live in, as shown by census statistics. These preferences for the Northern Beaches are shown in Figure 25 below, along with how they have changed since 2001, and how they are forecast to shift in the future.

In line with the discussion of household composition in Section 3.2, couples with children are relatively likely to live in separate houses, while lone person households and group households are more likely to live in apartments.

Over time it is becoming increasingly common for households of a variety of types to choose an attached dwelling or apartment over a separate house, particularly as houses have become more expensive in recent years. It is notable that the trend towards attached dwellings and apartments is

taking place in couples with children and one parent families, which have typically been regarded as almost always living in separate houses, as well as in smaller household types.

FIGURE 25: TRENDS IN NORTHERN BEACHES LGA HOUSING PREFERENCES



Source: SGS 2020, ABS Census 2001, 2006, 2011, 2016

The preference trend towards attached dwellings and apartments suggests that there is likely to be a continuing market for these smaller dwelling types. This supports the provision of housing diversity (likely through attached dwellings) at Ingleside. Provision of attached dwellings would provide a lower priced dwelling than the very expensive separate houses common in the area for young families and others who cannot afford a separate house. It would also cater to smaller household types like couples without children and lone person households (including downsizers) who may not want a separate house.

5. Economic trends and drivers

This chapter provides an overview of relevant economic trends and drivers that are likely to have an influence on Ingleside and the wider Northern Beaches economy as a whole.

5.1 Retail trends

This section discusses general trends in the retail sector and implications for Ingleside. Retail modelling and more detailed needs analysis is provided in Chapter 8.

The impact of online retailing on high street retail

In the 12 months leading up to January 2019, Australians spent the equivalent of about nine percent of the traditional 'brick and mortar' retail sector in online retailing.² With the impacts of COVID and associated lock-downs on economic activity, the use of online retail has only increased, with estimates of an increase of 80 per cent in online shopping activity between March and May 2020 compared to the previous year.³

The impact of online retailing hasn't affected all retail sectors equally, and is continuing to change. In the year to January 2019, department and variety store spending saw the highest percentage change in growth year on year, whereas by January 2020, this growth was significantly surpassed by the growth in spending on takeaway food (although the proportion of total spending in this category is still relatively low).⁴

Bricks and mortar retailers of goods which are non-perishable and can be easily transported are increasingly exposed to the effects of online retailing. As outlined previously, retailers are increasingly focussing on the experience offered by in-person retailing as a point of difference. Entertainment uses and events are also becoming increasingly important to anchor and support retail strips.⁵

Implications for Ingleside

Given the increasing pressure on existing centres of traditional retail, Ingleside should not seek to provide an alternative shopping destination to other local centres. Planning for retail uses within the release area should instead aim to create a walkable activity nexus for new residents.

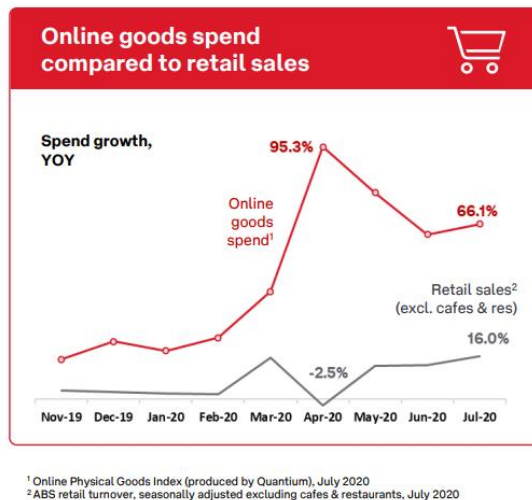
2 NAB, 2019, 'NAB Online Retail Sales Index, Monthly Update – January 2019', <https://business.nab.com.au/nab-online-retail-sales-index-monthly-update-january-2019-33762/>

3 Chalmers, 2020, 'Retailers reconsider need to reopen all stores as COVID-19 disruption sends shoppers online,' ABC News, 20 May 2020, <https://www.abc.net.au/news/2020-05-20/coronavirus-sends-shoppers-online-retailers-reconsider-stores/12259808>

4 See <https://business.nab.com.au/wp-content/uploads/2019/03/NAB-Online-Retail-Sales-Index-January-19.pdf>, <https://business.nab.com.au/wp-content/uploads/2020/03/NAB-Online-Retail-Sales-Index-January-2020.pdf>

5 JLL, 2018, 'Australian Shopping Centre Investment Review & Outlook 2018', <https://www.jll.com.au/content/dam/jll-com/documents/pdf/research/apac/australia/australian-shopping-centre-investment-review-outlook-2018.pdf>

FIGURE 26: IMPACT OF COVID ON ONLINE RETAIL



Source: Australia Post 'Inside Australian Online Shopping Update – September 2020
(https://auspost.com.au/content/dam/auspost_corp/media/documents/inside-australian-online-shopping-update-sep2020.pdf)

Primacy of out-of-centre shopping centres

Suburban shopping centres have emerged as a preferred destination for retail consumption for many residents in these locations. This has often been at the expense of local high streets which previously served the retail needs of their surrounding residential areas.

This has been driven by several factors, including:

- An affluent and mobile population in suburban areas.
- Growth of corporate chains with fewer ties to a locality and more willingness and need to move shops to areas of demand and opportunity.
- Demand for larger stores with associated parking.

However, the popularity of these shopping centres is being challenged by the rise of online retailing, generally weak consumer demand and a renewed emphasis on the convenience of local centres and benefits of walkability.

Implications for Ingleside

Some small, 'neighbourhood' level retail uses would be appropriate within the Ingleside centre to provide walkable options for the precinct's residents. However, Mona Vale's role as the primary retail centre for Ingleside, and Warriewood Square's role as a sub-regional shopping centre, should not be undermined.

Smaller supermarkets formats

Typically, successful retail centres have been anchored by a major supermarket, with smaller specialty stores clustered around it. Traditionally, this role has been filled by Coles and Woolworths, accounting for 70 per cent of the market even today.⁶

However, smaller supermarkets, particularly IGA and ALDI, have proliferated in the past decade. Aldi tripled its market share (3.1 per cent to 11.6 per cent) in the ten years to 2015, its appeal driven by significantly discounted prices.⁷

Another trend which has gained momentum is the development of smaller-format stores tailored to the local market, often providing convenience and ready-to-go food options. A key reason for the emergence of this format has been an increasing scarcity of available land in increasingly urbanised metropolitan areas. These new supermarket formats have perpetuated the decline of traditional convenience stores, with industry revenue expected to fall -0.8 per cent annually from 2019 to 2024.⁸

Implications for Ingleside

Although historically supermarkets have continued to consolidate and grow in size, preferences for smaller format, more dispersed food options have strengthened. This could provide a rationale for a small supermarket or grocery store within the Ingleside precinct. This potential is discussed in more detail in Chapter 8.

Emergence of café culture, food centres and experience dining.

Fuelled by a strong café culture, the café and coffee shop industry was estimated to worth \$9.8 billion in 2018-19, this figure growing to \$10.7 billion by 2023/24.

Food and beverage retailing has emerged as one of the best performers in a struggling retail sector, its growth largely driven by increased popularity of café breakfasts and lunches and online platforms for takeaway food ordering. Increasingly busy lifestyles, increased expenditure on leisure activities and cultural preferences towards eating out have supported the growth of this sector.

This move towards outdoor dining and restaurant-defined retail strip has required improvements to the public realm along high streets, with a focus on urban amenity and pedestrian prioritisation.

Furthermore, as options for remote ordering and delivery of food increase, the attraction of eating out will increasingly be as an experience, with opportunities for socialisation, music, entertainment etc. This reinforces the importance of amenity as a factor in successful local centres.

The shift towards more regular home-based working as a result of COVID-19 will likely remain in some way post-pandemic. This will redirect some expenditure on restaurants and cafes back towards local

6 Roy Morgan Research 2015, 'The ALDI effect: Australia's changing supermarket scene' <http://www.roymorgan.com/findings/6297-aldi-effect-australias-changing-supermarket-scene-201506220132>

7 Roy Morgan Research 2015, 'The ALDI effect: Australia's changing supermarket scene' <http://www.roymorgan.com/findings/6297-aldi-effect-australias-changing-supermarket-scene-201506220132>

8 IBISWorld, 2019, 'Convenience Stores in Australia', www.ibisworld.com.au, p. 3

centres and away from major CBD retail. Local centres such as Mona Vale, with good public domain amenity and local services are likely to be beneficiaries of this increased local trade.

Implications for Ingleside

Food and beverage retailing at an appropriate scale could provide an underpinning for a successful neighbourhood centre within the Ingleside precinct. A focus on amenity and walkability should also be present in planning for retail uses. This centre will likely benefit from residents working from home visiting during weekdays, but Mona Vale too, with its wider variety of local services will also likely see this trade increase.

5.2 Employment and ways of working trends

Working from home

COVID-19 related shutdowns across Australia have seen more people than ever working from home in the past six months. Whether more people will continue to do so post-COVID is uncertain at this time, and working from home is not possible for all businesses.

There are many indications that workers may prefer a balance between home and the office in future.⁹ It is expected people will continue to seek flexibility in their working arrangements, working from home some of the time, as workers and employers become more attuned to the possibility and practicalities of working more extensively from their home bases in a post-COVID world. Greater flexibility in working hours may also continue as Millennials (who have started their work careers in the high-tech flexible age) take up leadership roles.

Implications for Ingleside

A small retail centre within the precinct focussed on food and beverage options, combined with a potential co-working space or communal meeting facilities, could effectively serve the needs of local residents working remotely.

Knowledge based workers and flexible working arrangements

The concept of flexible working arrangements and 'working from home' has gathered momentum in the last few decades linked to the changes in the knowledge sector. Knowledge-based workers, facilitated by improvements in technology, are increasingly able to move fluidly through cities and centres conducting day-to-day work and meetings from home, local town centres and different locations.

⁹ See for example, Wade and Rugari, 2020, "I feel so much better: Employees ready to work from home more often," Sydney Morning Herald, 1 June 2020, <https://www.smh.com.au/business/the-economy/i-feel-so-much-better-employees-ready-to-work-from-home-more-often-20200531-p54y33.html>

This trend means suburban town centres may have a renewed focus and may have to support a new working population during the work week as people choose/prefer to work closer to home. Town centres may require new or different facilities (such as smaller office suites or co-working spaces), more population serving services (such as cafes and food outlets), 'quality of place' and building typologies to cater to the home based/flexible knowledge workforce.

Co-working

A concept which originated in San Francisco in 2005, co-working provides a format for working between the traditional office/workplace and the freelance work model, which is typically home-based. It involves working individually, but aims to achieve the benefits of agglomeration through a shared working environment.¹⁰

Co-working spaces are shared by professionals working in different (typically knowledge-based) industries, often freelance or self-employed workers.¹¹ Spaces provide desks, a Wi-Fi connection, common areas and basic office amenities.

As well as comparative affordability, co-working sites can offer opportunities for social interaction and an overall sense of collaboration and creativity.¹²

However, It is still unclear how COVID-19 related restrictions may affect the use and popularity of co-working spaces in future.

Implications for Ingleside

A co-working or communal office facility within the precinct may be useful to serve the needs of new residents, particularly given the high rate of job self-containment within this portion of the LGA. This could be communal meeting facilities as part of other community infrastructure rather than formal 'co-working' spaces.

Policy aspirations for Mona Vale

The Northern Beaches Local Strategic Planning Statement (LSPS) and Draft Centres and Employment Study both recognise Mona Vale as an important northern centre supporting local employment and retail. Mona Vale is identified as a Strategic Centre and of the six principles for Mona Vale's future vision outlined in the LSPS, three have particular relevance in the context of Ingleside's own development:

- Support Mona Vale as an employment and service centre for people living in the north of the LGA.
- Revitalise and improve public areas, including potential for a civic heart in the Village Park and access to and connectivity between key sites in the strategic centre.
- Encourage infrastructure to support home based businesses including flexible work spaces, co-working and tele-conference.

10 Gandini, A, 2015, 'The Rise of Coworking Spaces: A Literature Review', <http://www.ephemerajournal.org/sites/default/files/pdfs/contribution/15-1gandini.pdf>

11 Mahlberg, T 2017, 'Australian coworking spaces cater to a more diverse crowd than just young tech entrepreneurs'

12 Weijjs-Perree et al, 2018, 'Analysing user preferences for co-working space characteristics', *Building Research & Information*, 47:5, <https://www.tandfonline.com/doi/pdf/10.1080/09613218.2018.1463750?needAccess=true>

6. Summary of growth projections

This chapter summarises previous and current employment projections across the Northern Beaches, with a particular focus on Mona Vale and surrounds. It illustrates the moderate employment growth expected in the area and what type of employment may be considered appropriate in Ingleside.

6.1 Employment projections

Employment projections are produced by Transport for NSW for use in transport modelling and other planning across the NSW State Government. These projections were used by SGS in the Northern Beaches Employment Strategy, and provide an image of current and expected economic performances of the Northern Beaches LGA and its constituent parts. For this study, projections have been summarised for the LGA and for the Mona Vale area, which includes Ingleside.

Employment projections are provided in the table below. Two sets of projections are shown:

- The TZPv1.5 projections which were used in the Northern Beaches Employment Strategy, which were based off the 2011 census,
- The TPZ19 projections which were released more recently, are based off the 2016 census, and incorporate the results of more recent planning policy than the TZPv1.51 projections.

TABLE 16: EMPLOYMENT PROJECTIONS

	Broad industry category	2016 (TZP19)	2036 (TZP19)	Change 2016-2036 (TZP19)	Change 2016-2036 (TZPv1.51)
Northern Beaches LGA	Knowledge Intensive	23,345	30,549	7,204	8,618
	Health and Education	22,977	36,482	13,506	8,170
	Population Serving	40,966	49,491	8,524	7,425
	Industrial	15,169	17,212	2,042	-2,380
	<i>Total</i>	102,457	133,734	31,276	21,834
Mona Vale-area	Knowledge Intensive	3,693	4,828	896	1,526
	Health and Education	3,948	6,513	2,268	1,614

	Broad industry category	2016 (TZP19)	2036 (TZP19)	Change 2016-2036 (TZP19)	Change 2016-2036 (TZPv1.51)
	Population Serving	6,879	8,451	1,299	1,679
	Industrial	2,966	3,308	328	-616
	Total	17,486	23,100	4,792	4,203

Source: Transport for NSW 2019 TZP v1.51 Projections, Transport for NSW 2020 TZP19 Projections

The table below synthesises these projections to identify the proportion of the Northern Beaches LGA's employment growth expected to happen within the Mona Vale area for each broad industry category. This illustrates the ways in which the Mona Vale area is expected to underperform or outperform the overall Northern Beaches economy in the future.

TABLE 17: EMPLOYMENT PROJECTIONS FOR MONA VALE WARRIEWOOD SA2 AS % OF NORTHERN BEACHES

Broad industry category	2016 (TZP19)	2036 (TZP19)	Change 2016-2036 (TZP19)	Change 2016-2036 (TZPv1.51)
Knowledge Intensive	16%	16%	12%	18%
Health and Education	17%	18%	17%	20%
Population Serving	17%	17%	15%	23%
Industrial	20%	19%	16%	
Total	17%	17%	15%	19%

Source: Transport for NSW 2019 TZP v1.51 Projections, Transport for NSW 2020 TZP19 Projections

Note red cells show relatively small values while blue cells show relatively high values

Overall, the following findings can be drawn from employment projection data:

- Employment is expected to grow in the Northern Beaches and Mona Vale area in all broad industry sectors
- The most growth is expected in health and education, followed by population serving sectors, knowledge-intensive sectors and then industrial sectors in which only limited growth is expected.
- Employment growth in Health and Education has been revised up since the TZPv1.51 projections. Most of this growth in the Mona Vale area would be expected in established centres, particularly Mona Vale, where services are already located (Mona Vale contains a hospital which, although its services are being consolidated at the new Northern Beaches Hospital at Frenchs Forest, is expected to continue to serve a community health role).

- The Mona Vale area is expected to receive around 17% of health and education employment, in line with its current percentage in this broad category, showing that it will perform similarly to the broader Northern Beaches economy in this category.
- Expected growth in Knowledge Intensive employment has been revised down since the TZPv1.51 projections, particularly in the Mona Vale area which is expected to underperform the Northern Beaches in this category.
- The Mona Vale area is also expected to underperform the Northern Beaches in growth in population serving employment, with growth revised down since the TZPv1.51 projections.
- While industrial employment is now expected to grow, this would likely be confined to existing industrial precincts like the Mona Vale industrial area.

SGS recommended in the Northern Beaches Employment Strategy that any office and knowledge intensive employment growth expected in the northern part of the Northern Beaches LGA should be concentrated in Mona Vale given its status as a strategic centre and aspirations for it to become a larger centre in the future. The relatively modest TZP19 projections for the Mona Vale area for knowledge intensive employment reinforce the need for other centres not to compete with Mona Vale to maximise its chances of success. On this basis, Ingleside should not seek to fill a major commercial economic role. In addition, Mona Vale would be a more competitive location for businesses in these sectors, leaving limited economic opportunities for Ingleside.

Local services commercial floorspace demand

Commercial floorspace can be broadly understood to be one of two types, each of which has distinctly different drivers.

- ‘Local services’ commercial activity (sometimes called population-serving¹³) is closely linked to demand from the local population. These commercial uses provide services for people within a relatively restricted local catchment. Typical activities include accounting, legal services, and medical services.
- ‘Business-serving’ commercial activities choose to locate in areas that suit the broader requirements of the business. For these uses, proximity to customers is important but sits alongside other broader locational factors. These are diverse and include:
 - access to skilled employees
 - proximity to trade gateways (i.e. ports and airports)
 - access to key business inputs, (e.g. administrative functions associated with a winery locating within a wine region)
 - the location of clusters of related businesses
 - proximity to collaborators.

¹³ Note that population-serving commercial floorspace is a different concept to the population-serving broad industry categorisation, which is why the ‘local services’ terminology has instead been used in this report.

While there are likely to be few economic opportunities for business serving employment growth in Ingleside, some local services commercial floorspace is likely to be appropriate to provide access to services to the local population.

In the Northern Beaches Employment Strategy, SGS used coefficients from regression analysis of Metropolitan Sydney's employment and population change to estimate local services floorspace demand in the Northern Beaches LGA of 20,354 sqm of additional floorspace between 2016 and 2036.

The proposed population growth in Ingleside of around 2,500 people would be around 8% of the Northern Beaches LGA's projected total between 2016-2036. Some of the associated floorspace demand is likely to be taken in up Mona Vale and other centres, but some of it is likely to be present as demand for services floorspace within Ingleside.

6.2 Population and housing growth

Projections of the future demand for housing in the LGA have been derived from DPIE's population projections (which use the census year of 2016 as their base). There is estimated to be demand for an additional **14,803 dwellings** between 2016 and 2036 in the LGA. This equates to an average of approximately 740 dwellings per year to 2036. These projections form part of SGS's work on the Northern Beaches Housing Strategy.

TABLE 18: PROJECTED NORTHERN BEACHES HOUSING DEMAND TO 2036

Dwelling type	2016	2026	2036	Change 2016-36	Average annual growth rate
Separate house	60,236	61,537	63,539	3,303	0.27%
Attached dwelling	9,641	11,054	12,872	3,231	1.46%
Flat, unit or apartment	35,308	38,940	44,016	8,707	1.11%
Other dwelling	1,272	781	833	-439	-2.09%
Total Private Dwellings	106,458	112,312	121,261	14,803	0.65%

The majority of the future demand is expected to be for flats, units or apartments, followed by semi-detached houses, and separate houses. Denser forms of housing are expected to form a larger share of the LGA's dwellings to 2036.

The expected rate of growth in the Northern Beaches LGA is significantly less than what is expected in both the North City District and across Greater Sydney. This relatively low growth rate recognises the lack of major transport infrastructure capable of servicing more substantial population growth.

In line with these projections, there is likely to be demand for both separate houses and attached dwellings in Ingleside in the future. Development at Ingleside will go only part of the way to meeting the total modelled housing demand, and so the quantum of housing development appropriate at Ingleside is likely to be determined by design considerations and planning constraints like susceptibility to bushfire.

7. Development feasibility

7.1 Feasibility method

Development feasibility analysis compares costs and revenues of a hypothetical development to determine if the project would be financially viable. A key test for financial viability is to compare the residual land value (RLV) from a hypothetical development with the existing use value (EUV) of the site in question.

Residual land value (RLV) can be defined as the maximum amount a rational developer will pay a rational land seller for a site for redevelopment. RLV is estimated by deducting the anticipated development costs from the anticipated revenues. This is shown conceptually in the figure below. As the profit margin for development is included in the development costs, a developer will be able to develop profitably while still paying the RLV for the land.

FIGURE 27: DEVELOPMENT FEASIBILITY CALCULATION



Development feasibility is expressed through the ratio of the RLV divided by the expected cost for a development site.

If the RLV ratio is larger than 1.25, development is typically regarded as feasible because a developer could afford to pay 25% more than the likely value of a site, leaving some room for the value of a site to increase following rezoning or for a developer to need to pay above market rate potentially to acquire multiple sites.

If the RLV ratio is between 1 – 1.25, development is said to be marginally feasible, as a developer could afford to pay more than a site's value to acquire, but could not afford to pay a 25% premium that may be required.

If the RLV ratio is less than 1, development is said to be unfeasible. In this case, a developer would only be able to feasibly develop the land if they could acquire a particular site for less than has been assumed in the analysis, if they could sell the resulting lots and dwellings for a higher price, or if they could undertake the development for less than the cost assumptions in this model.

Feasibility modelling assumptions

Subdivision costs

Land subdivision cost is an important cost associated with the land subdivision process. It includes the costs of connecting the infrastructure and services (e.g. road, sewer, gas, electricity, water and

drainage) to the subdivided lots. These costs vary between different developments and obtaining an accurate estimate requires an investigation by the utility provider to determine the impact of the land subdivision on existing water and sewer systems, and whether the connections need to be provided. For example, the developer may need new reticulation systems and lead-in mains to provide connection to the water and sewer mains.

For the purposes of high-level feasibility modelling, and reflecting the uncertainty regarding subdivision cost, costs have been assumed to be around \$100,000 per dwelling, with a sensitivity test with increased costs of \$150,000 per dwelling. This reflects assumptions SGS used in feasibility modelling for Ingleside in 2016 based on analysis by Urban Growth (\$100,000 per lot). In addition, analysis by SMEC for the UDIA estimated subdivision cost for development in Western Sydney at 15 dwellings/ha to be around \$81,00 per lot, including construction costs, consultancy fees and fees and charges but excluding development contributions and associated re-imbursements¹⁴.

Development contributions

Development contributions have not been finalised for Ingleside, but may apply through s7.11 and a SIC. This modelling is not intended to determine the exact size of contribution which could be levied, for which more detailed modelling would be required. Rather, an indicative overall contribution of **\$50,000 per lot** has been included to illustrate whether development is likely to be feasible with some contributions. It has been assumed that any part of a property required to be dedicated to Council for open space or other infrastructure will be reimbursed (either through discounts to development contributions or otherwise) at a rate of \$170/sqm, which is at the lower end of the cost range for large RU2-zoned sites in Ingleside (as discussed in Section 0). This assumes that land is sold for non-development purposes, hence the use of the lower per square metre rates.

Timeframes

This feasibility analysis uses recent sales data and construction and sub-division estimates to identify development feasibility. It must be acknowledged that the development of the Ingleside precinct is likely to be delivered over a long time horizon. This feasibility model is a point in time model and does not predict future sales values or construction costs. This is particularly pertinent in the current COVID climate with impacts on population growth, housing demand preferences and ways of living and working into the future unclear. It should therefore be considered as a high level feasibility guide to inform early stage masterplan thinking.

Land valuations

This feasibility analysis has not had inputs from detailed land valuation, rather it draws from recent sales values to inform acquisition costs and sales values. The Ingleside precinct's development has been known for several years and so expected development uplift through rezoning may already be priced into recent sales data. This analysis does not attempt to ascertain existing or potential land value uplifts as a result of future rezoning. This would need to be examined through a more detailed land valuation assessment.

¹⁴ SMEC 2018, *Capital City Cost Review, Greenfield Urban Development* https://udiansw.com.au/wp-content/uploads/2019/11/UDIA-NSW-Cost-Comparison_SMEC_FINAL-01112018.pdf

Other cost assumptions

TABLE 19: OTHER FEASIBILITY COST ASSUMPTIONS

Input	Source	Value
Demolition and townhouse construction costs	Rawlinson's Construction Handbook 2018	Varies
Property acquisition costs	Recent property sales discussed in Section 0	Sites 0-4,000 sqm: \$900 - \$1,250/sqm Sites 4,000-8,000 sqm: \$430/sqm Sites 1.5ha+: \$170-\$340/sqm
Development revenue	Recent property sales discussed in Section 7.3	Subdivided vacant sites for houses: \$2,600/sqm Townhouses: \$1,300,000
Townhouse size	Profiling of townhouse sales in Warriewood	150sqm, plus double garage
Construction contingency (townhouses only, subdivision costs include contingency)	Various sources using industry standards	3%
Professional fees (townhouses only, fees are included in subdivision costs)	Various sources using industry standards	6%
Finance costs	Various sources using industry standards	7.5% of construction costs, land costs and fees & charges
Developer profit and risk	Various sources using industry standards	20% of all other development costs
Sales commission, marketing and legal fees	Various sources using industry standards	4% of sales revenues

Conceptualisation of land value

Land can broadly be valued based on its value for its existing use, or based on its value for development. As noted above, in the context of land rezoning development is typically regarded as feasible when the RLV is greater than the EUV. This section provides an explanation regarding why this assumption is made, rather than testing feasibility against other potential land values which are higher than the EUV.

Existing use value (EUV)

The EUV is the value that a rational purchaser would pay to use the land with its current development, in Ingleside that is to occupy the land with a house or rural business without further subdividing it.

If land rezoning to permit subdivision in Ingleside occurred, the EUV would not increase. This is because *existing* developments on the land can continue to be used for the same purpose, and the fundamental

properties and value of the land for its current use are unchanged by the rezoning. For example, in Ingleside the amount a purchaser would be willing to pay for *continued rural residential use* of land would be unaffected by whether it is zoned R2 Low Density Residential or RU2 Rural Landscape. Indeed, the EUV for rural business and residential uses may be lowered rather than increased by the potential for suburban housing development.

Land value resulting from development rights

As the existing use value is unchanged when the land is rezoned, the land value will only change when rezoning occurs if a purchaser is willing to pay more in order to develop the land under the new planning controls, or land speculation is occurring (which is discussed below). For example, a developer could purchase land in Ingleside to subdivide it, but only providing that subdivision is feasible. In this case a rational developer would pay up to the most they could for land while still profitably developing it, which is the RLV. If development was unfeasible, a rational developer would not pay more than the EUV to purchase it, and so the land value would not increase from the EUV based on unfeasible development rights.

It would be possible for residential subdivision and development to be unfeasible if other kinds of development were permitted under the proposed land zones which would have higher returns than residential uses. However, as residential land use zones would be expected in Ingleside (apart from in any new local centre), a wide variety of other uses will not be permitted and residential development is expected to be the highest and best use.

Speculative land values

A rational developer would only pay more for land than its RLV or EUV post-rezoning if they expected to be able to develop more profitably in the future, which would increase the amount they could pay for the land. This could occur as a result of decreased development costs, increased sales revenues or if a developer expected further rezoning of the land to permit more profitable forms of development (for example higher densities). Paying more for the land on the basis that further rezoning may occur is generally referred to as land speculation. If land speculation is occurring in Ingleside, it would be reflected in current land prices which have been used in the feasibility calculation. As such, land speculation would not be expected to lead to substantial further increases in value in this case providing that a masterplan is adopted, which would indicate that further uplift is not imminent.

Land values used in feasibility calculation

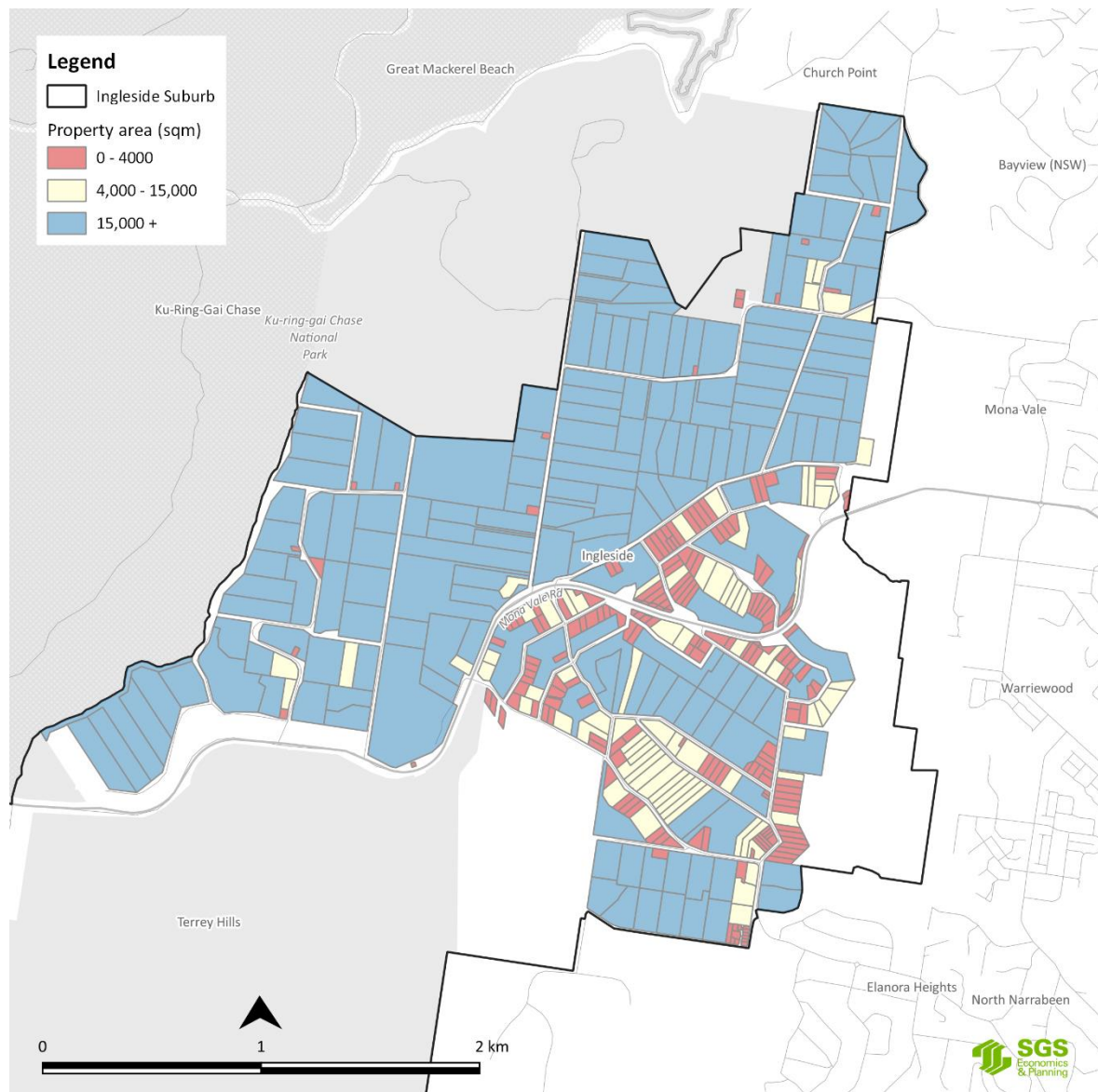
As noted above, the EUV would not be expected to change on rezoning, while land speculation would be reflected in current prices and is not usually separately factored into feasibility analysis. As such, land values in Ingleside are only likely to increase from EUVs based on development rights as captured by the RLV, and this would only occur if development were feasible. As such, feasibility at a potential higher land value post-rezoning is assumed and therefore does not need to be tested. Rather, to determine whether development is likely to be feasible it is sufficient to test the RLV against the EUV only.

7.2 Site acquisition costs

Property sizes

Properties in Ingleside have been grouped into three size brackets to profile recent sale prices, which provide an indication of the likely acquisition costs for development sites under the current property market. The sizes of properties broken down into these three brackets are shown in the figure below. The area south of Mona Vale Road is proposed to be redeveloped, and contains a mix of smaller properties mostly near Mona Vale Road, medium properties mostly in a consolidated block which is proposed to be retained for environmental purposes and larger properties.

FIGURE 28: PROPERTY SIZES IN INGLESIDE



Source: SGS 2020

Feasibility testing sites

Feasibility has been tested on theoretical sites of different sizes. Despite the consolidated ownership or undeveloped nature of many of the smaller and medium sized properties in the area proposed to be developed, there are properties proposed to be developed in each of the size categories shown in Figure 28 (4,000sqm or less, 4,000-15,000sqm and 15,000sqm or more). To reflect this variation in property size and variations in likely property acquisition prices, feasibility has been tested on three hypothetical sites: one of around 2,000sqm (a small site), 7,000sqm (a moderately sized site) and 20,000sqm (a larger site).

This is intended to provide a strategic overview of development feasibility across the precinct and for sites of different sizes rather than to determine whether development on any particular site will definitely be feasible. While SGS is not proposing or recommending changes to the masterplan, the results of this analysis would also apply to other sites within the precinct not currently proposed to be redeveloped.

Development feasibility has been tested for:

- Townhouses at 30 dwellings/ha, with the developer performing both the subdivision of land and the development of townhouses, and
- Separate house sites at 15 dwellings/ha, with the developer subdividing and selling the site with the construction of a house not included in the model. The resulting properties are assumed to be 450sqm on average, corresponding to around 33% of the land designated for development of houses becoming streets and other parts of the public domain.

Small properties

Property sales since 2016 on smaller allotments suitable for single houses or limited redevelopment are shown in the table below. There is a concentration of properties of this size immediately south of Mona Vale Road forming part of the proposed redevelopment area.

Prices range between \$623 - \$1,891 per square metre, with the highest per square metre prices on suburban-sized allotments of less than 1,000sqm. Overall prices appear to have peaked in 2018 before declining slightly, although there is still a high degree of variation within each year.

Excluding the higher and lower price outliers gives a typical price range for properties of this size of around **\$900 - \$1,250 / sqm**. The values on either end of this range will be used in development feasibility testing.

TABLE 20: RECENT SALES OF SMALL PROPERTIES (<4,000 SQM) IN INGLESIDE

Address	Year of sale	Sale price	Site area (sqm)	Price per sqm
45 Waratah Road Ingleside	2020	\$2,800,000	1,922	\$1,457
3 Manor Road	2020	\$1,800,000	2,007	\$897
240 Powderworks Road	2020	\$2,290,000	3,075	\$745
12 Ingleside Road	2020	\$1,901,000	3,049	\$623
54 Waratah Road	2020	\$2,887,500	2,321	\$1,244
292 Powderworks Road	2019	\$2,200,000	1,947	\$1,130
11 Bungendore Street	2018	\$1,550,000	820	\$1,891
8 Ingleside Road	2017	\$3,377,007	3,054	\$1,106
16 Cicada Glen Road	2017	\$1,510,000	866	\$1,743
65 Laurel Road West	2017	\$2,775,000	2,786	\$996
4 McCowen Road	2017	\$1,000,000	890	\$1,124
30 Ingleside Road	2016	\$2,855,000	3,245	\$880
49 Laurel Road West	2016	\$2,460,000	2,609	\$943
39 Laurel Road West	2016	\$3,250,000	3,205	\$1,014

Source: SGS 2020, NSW Valuer General *Bulky Property Sales Data*

Medium properties

There are a limited number of sales of properties between 4,000sqm – 8,000sqm in Ingleside since 2016, and these are shown in the table below. There are some of these properties within the redevelopment area and elsewhere near Mona Vale Road.

Excluding the low price for 53 Mclean St, sales for properties of this size ranged between \$388 - \$576/sqm. An indicative value in the middle of **\$430/sqm** will be used in development feasibility testing.

The lower price per square metre compared to smaller properties is likely to be a reflection of the property price being determined largely by its use for rural residential purposes and the quality of the house on the site. As a result, sale prices for properties in this size range and smaller properties are similar, and so these properties have a lower per square metre price.

TABLE 21: RECENT SALES OF MODERATELY SIZED PROPERTIES (4,000SQM – 8,000 SQM) IN INGLESIDE

Address	Year of sale	Sale price	Site area (sqm)	Price per sqm
271 Powderworks Rd	2019	\$2,860,000	7,370	\$388
53 Mclean St	2018	\$1,750,000	7,339	\$238
32 Ingleside Rd	2017	\$2,300,000	5,363	\$429
14 King Rd	2016	\$2,375,000	4,126	\$576
2 Laurel Rd E	2016	\$2,450,000	4,675	\$524

Source: SGS 2020, NSW Valuer General *Bulky Property Sales Data*

Larger properties

Sale prices since 2016 of properties larger than 1.8ha in Ingleside are shown in the table below. There were no recorded sales for properties between 8,000sqm and 1.8ha. Almost all of the properties north of Mona Vale Road and Lane Cove Road are larger than 1.8ha, as are many in the area proposed to be developed, including the are proposed to be developed for medium density.

Sale prices for these properties are typically larger than those for smaller properties, although the per square metre price is lower as a result of the larger property size. The larger properties in this size bracket (for example 169 Mona Vale Rd) have the potential for and in some cases are used for commercial uses.

Excluding outliers, properties in this size bracket typically sold for between **\$170-\$340/sqm**.

TABLE 22: RECENT SALES OF LARGER PROPERTIES (1.8HA +) IN INGLESIDE

Address	Year of sale	Sale price	Site area (sqm)	Price per sqm
169 Mona Vale Rd	2019	\$16,500,000	60,487	\$273
32 Cicada Glen Rd	2019	\$2,700,000	23,179	\$116
25 Walter Rd	2018	\$6,260,000	18,502	\$338
18 Cicada Glen Rd	2018	\$2,295,000	37,415	\$61
1 Cicada Glen Rd	2018	\$3,700,000	20,234	\$183
35 Walter Rd	2017	\$5,000,000	18,517	\$270
21 Chiltern Rd	2017	\$1,570,000	20,486	\$77
75 Lane Cove Rd	2017	\$3,500,000	20,181	\$173
7 Bungendore St	2017	\$1,525,000	25,871	\$59
13 Chiltern Rd	2017	\$5,000,000	21,975	\$228
169 Mona Vale Rd	2016	\$7,250,000	60,487	\$120
11 Chiltern Rd	2016	\$4,200,000	35,102	\$194
176 Mona Vale Rd	2016	\$3,380,000	20,458	\$843
11 Wilga St	2016	\$6,200,000	20,475	\$303
13 Wilga St	2016	\$6,100,000	20,027	\$298
14 Wilga St	2016	\$6,000,000	20,231	\$300

Source: SGS 2020, NSW Valuer General *Bulky Property Sales Data*

7.3 Development revenue

Separate houses

A selection of recent vacant land sales in Warriewood is shown below. In each case the land is a suitable size for a detached house, and so these sales provide an indication of how much subdivided house sites in Ingleside could sell for. Prices generally range between around \$2,300-\$3,100/sqm. **\$2,600/sqm** has been adopted for modelling as a relatively conservative estimate of potential revenue from house sites.

TABLE 23: SELECTION OF RECENT VACANT LAND SALES IN WARRIEWOOD

Address	Year of settlement	Sale price	Site area	Price/sqm
26 Baz Rtt	2019	\$1,230,000	412	\$2,987
57 Warriewood Rd	2019	\$1,010,000	373	\$2,709
3 Baz Rtt	2019	\$1,160,000	374	\$3,102
12 Orchard St	2019	\$925,000	412	\$2,245
21 Cherry Lane	2018	\$910,000	300	\$3,031
10 Cherry Lane	2018	\$1,095,000	406	\$2,698
7 Cherry Lane	2018	\$975,000	344	\$2,836
5 Cherry Lane	2018	\$941,780	344	\$2,739
25 Cherry Lane	2018	\$1,000,000	319	\$3,136
3 Cherry Lane	2018	\$964,614	344	\$2,806
6 Cherry Lane	2018	\$1,150,000	433	\$2,654
12 Cherry Lane	2018	\$1,200,000	467	\$2,568
16 Cherry Lane	2018	\$1,015,000	440	\$2,305
15 Fern Creek Rd	2018	\$1,125,000	452	\$2,487
4 Cherry Lane	2018	\$1,000,000	604	\$1,656
11 Cherry Lane	2018	\$946,230	344	\$2,751
4 Orchard St	2017	\$917,847	392	\$2,339

Source: SGS 2020, NSW Valuer General *Bulky Property Sales Data*

Townhouses

Recent townhouse sales from Warriewood are shown in the table below. These sales provide a guide to the potential revenue from the development of townhouses in Ingleside, although there may be a small price premium for new townhouses compared to existing townhouses whose sales are captured below. For the purpose of feasibility modelling, it has been assumed that townhouses built in Ingleside will have 3 bedrooms and a double garage, be around 150sqm in size excluding the garage (similar to SGS's estimate of those in Warriewood) and sell for **\$1,300,000**.

TABLE 24: SELECTION OF RECENT TOWNHOUSE SALES IN WARRIEWOOD

Address	Sale date	Sale price	Bedrooms
9/13-19 Angophora Cct	15/10/20	\$1,400,000	3
52/30 Macpherson Street	6/10/20	\$1,250,000	3
4/16-18 Angophora Cct	4/9/20	\$1,345,000	3
14/2 Forest Rd	4/9/20	\$1,122,500	3
12/26 Macpherson St	19/8/20	\$1,120,000	3
43/30 Macpherson St	7/8/20	\$1,135,000	3
5/153 Garden St	5/8/20	\$955,000	2
16/239 Macpherson St	17/7/20	\$1,275,000	3
10/16-18 Angophora Cct	8/7/20	\$1,345,000	3

Source: SGS 2020, Domain




7.4 Results

Development feasibility results in the form of RLV ratios are shown in the following table. Results are grouped by indicative site type and acquisition cost (shown on the rows), and by site coverage and use (shown on the columns). In some cases less than 100% of the site would be expected to be developable, for example if some of it would need to be dedicated for drainage, open space or conservation, and in these cases the developable percentage would be less than 100% (for example in the first column, 50% of the site could be developed as houses, and the remaining 50% of the site could not be developed).

As noted in Section 7.1, this modelling assumes that developers would subdivide house sites and built the supporting infrastructure (for example roads and drainage), before selling the vacant sites, with buyers building their own houses (this could occur as part of a house and land package). It is assumed that developers will subdivide sites for townhouse developments, build the townhouses as well as the supporting infrastructure and then sell the complete townhouses to buyers. Developers more commonly develop townhouses rather than sell large blocks of vacant land for townhouse development.

TABLE 25: DEVELOPMENT FEASIBILITY RESULTS

Size and acquisition price	50% Houses	100% Houses	100% Townhouses	20% Houses 50% Townhouses	20% Houses 50% Townhouses Increased costs
Small site \$940/sqm	0.58	0.99	1.01	0.75	0.66
Small site \$1,250/sqm	0.43	0.74	0.76	0.57	0.50
Medium site \$430/sqm	1.26	2.16	2.22	1.65	1.45
Large site \$170/sqm	3.20	5.49	5.66	4.20	3.68
Large site \$340/sqm	1.59	2.73	2.81	2.08	1.83

 Feasible
 Marginally feasible
 Unfeasible

Development is generally feasible on medium or large sites, and unfeasible on small sites with typical acquisition costs. Both houses and townhouses are likely to be feasible, and the whole site does not need to be developed to ensure feasibility on medium and large sites.

RLV ratios are very high when large site acquisition costs are used and the entire site is developed, indicating that there would be significant windfall profits at these land prices if the entire site could be redeveloped. Larger development contributions than were included in the model would likely be supportable in this case, although this modelling is intended to be indicative only and more detailed modelling with more accurate cost assumptions would be required to determine the size of contribution which could be levied.

On small sites, the RLV ratio is close to one in cases in which the entire site can be redeveloped and acquisition prices are at the lower end of the observed range. Development is likely to be feasible

where sites are cheaper than \$940/sqm. Some sales at cheaper prices have occurred since 2016, and so development is likely to be feasible on some sites. Relatively conservative revenue assumptions have been used, and so development may be more feasible on other sites. Future changes in market conditions, a decreased development cost or decreased development contributions could also increase feasibility on a broader range of sites. As development may become feasible in the medium and longer term, these results do not mean that smaller sites cannot be planned for development, however the rate of development on these sites may be slow initially.

From a masterplan sequencing perspective, this feasibility analysis indicates that the sub-division and development of larger lots is more likely to be feasible in the early stages of the development, with smaller lots taking developing over a longer time frame.

8. Retail needs analysis

This chapter outlines the expected future retail demand for the Mona Vale area and its implication for Ingleside's masterplan development. The analysis in this chapter builds on previous retail analysis undertaken in the Draft Northern Beaches Employment and Centres Strategy.

8.1 Retail modelling method

Floorspace supply

This study does not involve an on-foot land audit. Rather, existing commercial and retail floorspace has been estimated using a combination of Google analytics and building footprints provided by PSMA Australia through the Geoscape Dataset.

Data downloaded through the google maps API provides the location and types of businesses in the Northern Beaches LGA as well as the general patterns of centres. These locations are matched against the Geoscape dataset, which is satellite-derived data showing the footprint and height of every building. After allocating businesses to buildings, the amount of floorspace per business within each building has been estimated. Floorspace estimates have been adjusted based on the number of levels in each building, the ratio of retail to commercial use and the expected sizes of different retail uses (for example, supermarkets occupy much more floorspace than clothing stores).

Proposed floorspace likely to be built in the future has been estimated across the system using a combination of the Cordell Connect database and strategic policy positions/ plans across Greater Sydney.

Much of the retail floorspace within the Northern Beaches LGA is contained within stand-alone shopping centres. The sizes and kinds of premises within these centres have been determined based upon a manual review of available centre directories and a review of third-party shopping centre floorspace databases.

Floorspace estimates have been checked and refined using several other data sources, including:

- The Property Council of Australia (PCA) retail and floorspace database
- ABS Census data (deriving floorspace from employment estimates)
- Google Maps and Street View imagery
- Shopping centre websites
- The Cordell Connect database

Retail floorspace is grouped into the following categories which have been adapted from ABS retail categories:

- Supermarkets, which sell a wide range of food and are not specialised in any particular product (for example Woolworths or Aldi)

- Other food, which includes liquor retailing, fruit and vegetables stores, butchers, delicatessens and other specialised food retailers
- Hospitality, which includes cafes, restaurants, bars and takeaway food services
- Clothing and soft goods, which includes retailers of clothing, footwear and other personal accessories
- Household goods, which includes retailers of furniture, floor coverings, houseware, Manchester, electrical goods and hardware supplies
- Other retail, which includes retailers of newspapers, books, pharmaceuticals, cosmetics, recreational goods, stationary, used goods, flowers and other miscellaneous goods that do not fit within other categories
- Department stores, including discount department stores, which sell a wide variety of goods other than food or groceries with no predominant focus (for example Myer or Big W)

In the reporting in sections 6.2-6.5, clothing and soft goods, household goods, other retail and department stores are grouped into a larger 'other' category.

Retail expenditure calculation

Retail expenditure data has been developed out of resident-based expenditure accounts across 24 commodity groups at an SA1 level (e.g. fresh food, groceries, pharmaceuticals, restaurants, etc). These expenditure accounts are sourced from MarketInfo's Market Data Systems (MDS). MDS are the industry benchmark in estimating small area expenditure that draws on the latest Household Expenditure Survey (HES), ABS Census and other datasets. These expenditure per capita forecasts are then combined with robust small area land use projections for population and employment developed by SGS and Transport for NSW.

The retail expenditure data also considers changing consumer spending patterns and the degree to which expenditure is influenced by work-based, education-based and tourism-based spending. These considerations help to capture overall leakage/capture for the whole system.

Retail gravity modelling

Gravity modelling is used to calculate retail turnover, which is the amount of spending within each centre (as opposed to the expenditure of the local population, which is likely to be spread across multiple centres).

Gravity modelling simulates where people will spend their money when given the choice of different retail destinations. It considers additional variables such as spending by retail commodity type (i.e. groceries, clothing), the distance people have to travel and the attractiveness of that centre. A large Westfield for instance, tends to have greater 'pull' or 'gravity' compared to a local retail high street.

The SGS Retail Model is built on previous research as well as the extensive experience SGS has gained conducting many retail studies. The SGS retail model takes the following approach:

$$\text{Propensity to shop at a centre} = \frac{\text{"Attractiveness" of centre} \times \text{Floorspace of shopping centre}}{\text{Travel time to the shopping centre}^2}$$

This formula recognises that an individual is more likely to go to more 'attractive' and larger centres and less likely to go to smaller, lower-quality centres that are further away. The turnover of each centre is modelled, and so the retail gravity model cannot assess likely impacts *within* centres like Chester Hill (for example on retailing on Waldron Road).

The 'attractiveness' of a shopping centre refers to a range of visual and functional attributes, including ease of access and car parking as well as the quality of the shopping experience. Unlike other gravity models, the SGS model does not explicitly estimate the effects of design layout or product mix. Instead, it uses the shopping centre's current turnover and the distribution of current demand as a basis to establish a 'current attractiveness value' for the centre. This current attractiveness value is then used to forecast how the shopping centre will perform in the future given changes in population expenditure.

Why use a gravity model?

Other retail demand approaches (such as survey-based assessments) are expensive and data intensive and only consider current population and behaviour. Simplified 'shift-share' approaches typically focus on one or a few centres and heavily rely on judgement-based catchments with exaggerated market share thresholds.

Gravity models, on the other hand, present the following benefits:

- All spending across the retail system is accounted for once and only once;
- Catchments are generated through data analysis rather than through the judgement of consultants; and
- A gravity model captures the continuous and dynamic nature of catchments, based on changing demand, supply, and transport infrastructure.

Limitations of the retail gravity model

Future turnover and floorspace demand forecasts from a retail gravity model are one possible view of the future retail market, assuming that the current retail system is in equilibrium and that the relative attractiveness of different centres stays the same. Changes in the relative attractiveness of centres, the distribution of future development or consumer preferences will generate a different future pattern of retail turnover. Increases in attractiveness of particular centres, for example through reduced traffic congestion, a broader retail mix or a more attractive environment, are not anticipated in the model and could shift the propensities of consumers to spend their money in different centres.

Floorspace demand

Using benchmark retail turnover densities (RTDs) for each of the retail categories and centre sizes, it is possible to estimate the quantity of retail floorspace likely to be needed within each centre as a result of changes in retail expenditure within their respective catchments. This provides a better estimate of how the performance of centres will change in the future than changes in turnover, as RTDs are adjusted over time to account for improvement in floorspace productivity (i.e. real increases in RTD).

Online retail market share

The market share of online retail in the future will change the amount of retail expenditure which occurs in physical stores. Online retail spending is currently growing rapidly, and there are a variety of

estimates of its size and growth rate. To reflect the uncertainty in how quickly online retailing will grow in the future, two scenarios have been modelled, and are discussed below.

Online retail growth scenarios are based on experimental time-series statistics of online retail market share produced by the ABS. These time series show the market share to be growing by around 0.75% per year, and as of March 2020 to be around 7.2%. While they are experimental, these estimates are the most relevant of available data sources to the SGS retail model as SGS uses a similar categorisation as the ABS. Some third-party retail market share estimates may be based on different categorisations and so cannot be used as accurately in SGS's retail modelling.

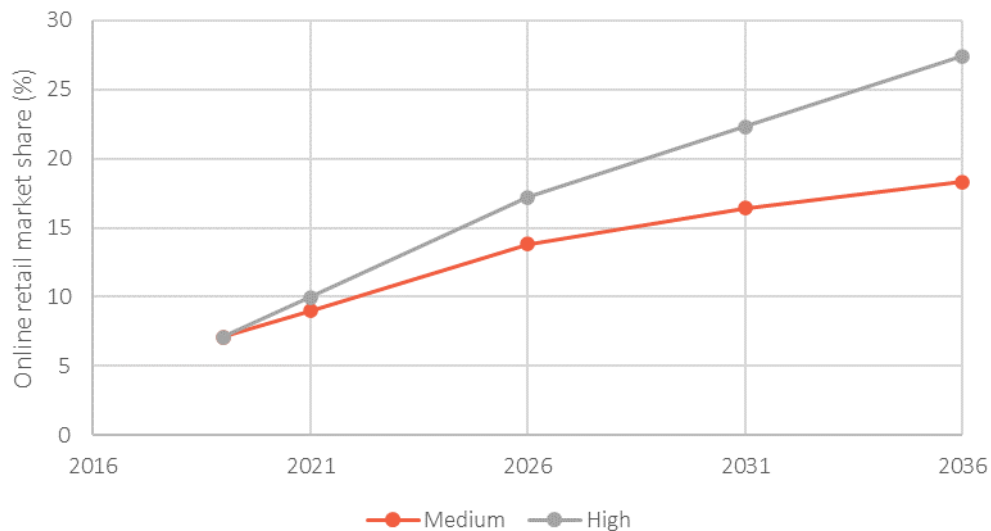
Online retail market share was broken down into shares for each retail commodity based on reported market shares for various goods and services from a variety of third-party research sources, including NAB, IBIS World, and Australia Post. These shares are lowest for supermarkets and hospitality and highest for department stores and clothing. Shares for every commodity were assumed to grow in the future, although the highest growth is expected to occur in those commodities which have the highest current online retail market penetration (department stores, clothing and household goods).

The figure below shows the projection scenarios for online retail market share. In both the low and medium scenario the growth rate of the online market share is expected to decline in the future, reflecting a decrease in growth rates of the online retail industry. Growth in the number of customers is likely to slow in the future as almost everyone who is likely to shop online does so sometimes. In addition, it is likely that the easiest gains will be made earlier, leaving online retail competing to capture transactions which people prefer to make in-store.

The online retail scenarios are:

- Medium scenario: Online retail market share growth will continue at 0.75% per year in the short term before halving to 0.38% per year by 2036.
- High scenario: Online retail market share growth will accelerate to 1% per year, with no reduction in this growth rate in the future. While online retail market share only reaches around 27% by 2036 under this scenario, it is much higher for department stores and clothing at almost 50%, likely posing a significant challenge to retailing in these sectors.

FIGURE 29: ONLINE RETAIL MARKET SHARE UNDER DIFFERENT SCENARIOS



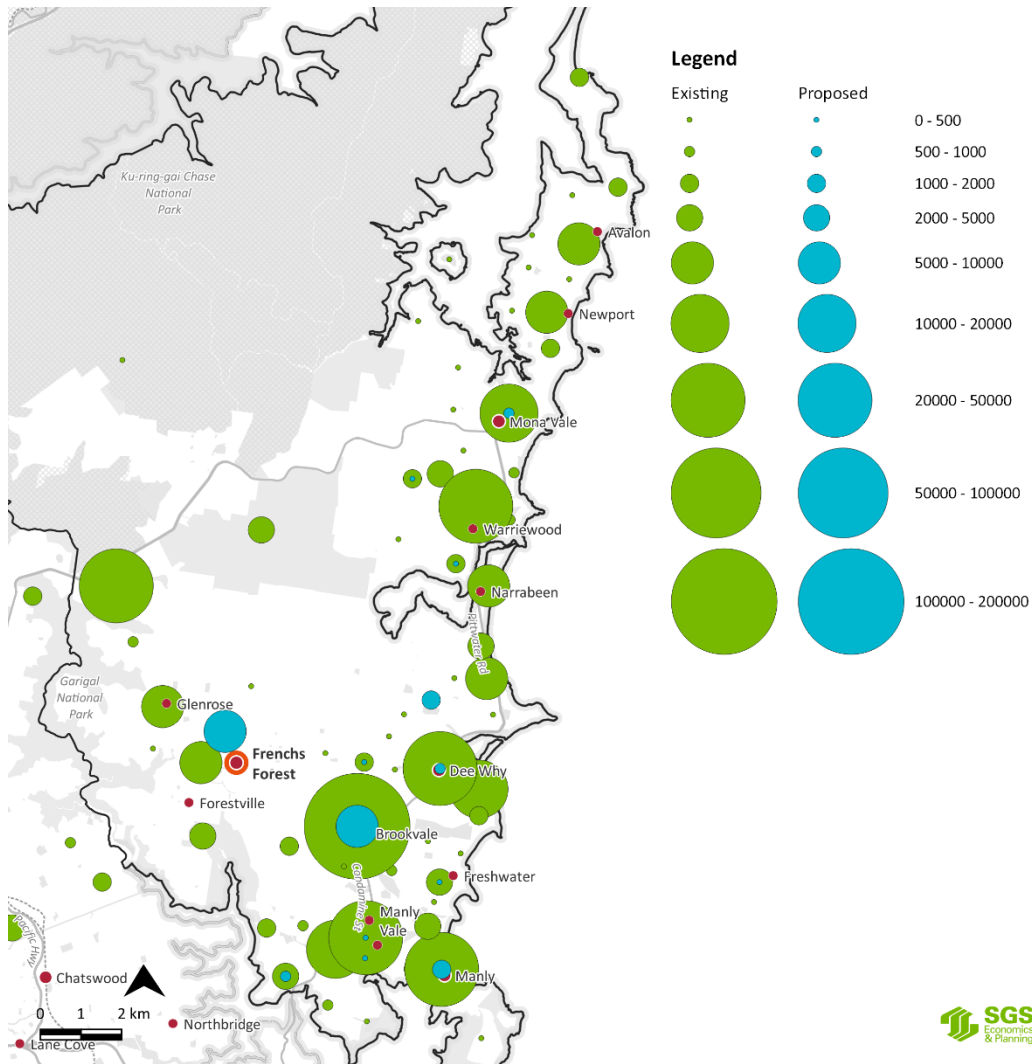
These scenarios are important to assess the potential medium and long term implications of COVID and its acceleration of online shopping uptake across Australia. More rapid growth in the online retail sector is likely to significantly reduce overall retail turnover in some categories. As people have been forced to buy more goods online during COVID-19 lockdowns and physical retailers have closed, COVID-19 may lead to a long-term behaviour shift which increases the market share of online retail. This would favour the higher scenario.

8.2 Retail floorspace results

The current and expected future retail floorspace across the Northern Beaches is illustrated in the figure below. There are several moderately sized retail centres near Ingleside, although these will be discussed in more detail in Section 8.4.

There is some additional retail floorspace in the development pipeline for Mona Vale and Elanora Heights, although the total amount is much smaller than the current retail floorspace in those locations. There is more retail floorspace in the development pipeline further to the south at Frenchs Forest, Brookvale, Manly and other centres, although this is unlikely to impact significantly on the retail system around Ingleside.

FIGURE 30: RETAIL FLOORSPACE SUPPLY IN THE NORTHERN BEACHES LGA



Source: SGS Economics and Planning, 2019

8.3 Retail demand associated with development at Ingleside

Development at Ingleside will increase retail expenditure in the local retail sub-catchment, and some of this additional expenditure could be captured by a retail centre at Ingleside. Modelling provides an indication of how large such a centre could be based on average retail expenditure patterns, but should be considered in conjunction with retail impact modelling (in the following section) and an understanding of local needs, opportunities and constraints.

The potential retail demand arising from development at Ingleside was estimated in the following way:

1. Identify a benchmark area whose per capita retail expenditure is likely to be similar to Ingleside's profile after development. In this case, Warriewood was chosen.
2. Multiply per capita retail expenditure (from Warriewood in the retail model) by the expected population of Ingleside when it is fully built to obtain total expected retail expenditure of the future population. The expected addition of 2,699 people was used for this calculation.

3. Divide the retail turnover by an average retail turnover density for small local centres to obtain retail floorspace.

For the purpose of modelling it was assumed that development will be complete by the year 2031, and so results are shown for that year. The results would be slightly different for other years due to the impacts of inflation and an increasing online retail market share, but the 2031 results are appropriate as a strategic guide. These results are shown in the table below.

TABLE 26: POTENTIAL RETAIL DEMAND FLOORSPACE ASSOCIATED WITH DEVELOPMENT AT INGLESIDE (SQM)

Online retail scenario	Supermarket	Other food	Hospitality	Other	Total
Medium online market share	859	363	676	1,974	3,873
High online market share	826	350	679	1,703	3,557

Much of this floorspace demand would be likely to be captured by other centres – for example people are likely to travel to Mona Vale or Brookvale or large or specialised shopping trips. A larger amount of the supermarket spending would likely be able to be captured, followed by other food and hospitality, and only a very small portion of other expenditure. On this basis and without prescribing the size, a small retail centre could be supported at Ingleside (for example of around 1,000sqm or slightly larger).

8.4 Retail needs assessment

The retail needs of the community at Ingleside can be evaluated by considering the location and composition of nearby centres. The centres nearest to Ingleside are shown in the figure overleaf. The retail and service composition of these centres is shown in the table on page 73.

There are several centres near Ingleside, with Terrey Hills, Elanora Heights and Warriewood providing small supermarkets and some other retail and services and Mona Vale, Warriewood Square and Narrabeen providing a wider range of retail and services. Of these larger centres, Mona Vale is particularly close and can be easily and directly accessed by road from Ingleside along Mona Vale Road.

While there are existing retail centres near Ingleside, they would be difficult to reach by active transport due to the distance and topography. A small retail centre at Ingleside catering to day to day retail needs and providing some services with a local focus would cater to the needs of the local population. A larger centre would have difficulty competing with Mona Vale and Warriewood Square and would alter the wider centre hierarchy of the Northern Beaches.

FIGURE 31: RETAIL CENTRES NEAR INGLESIDE

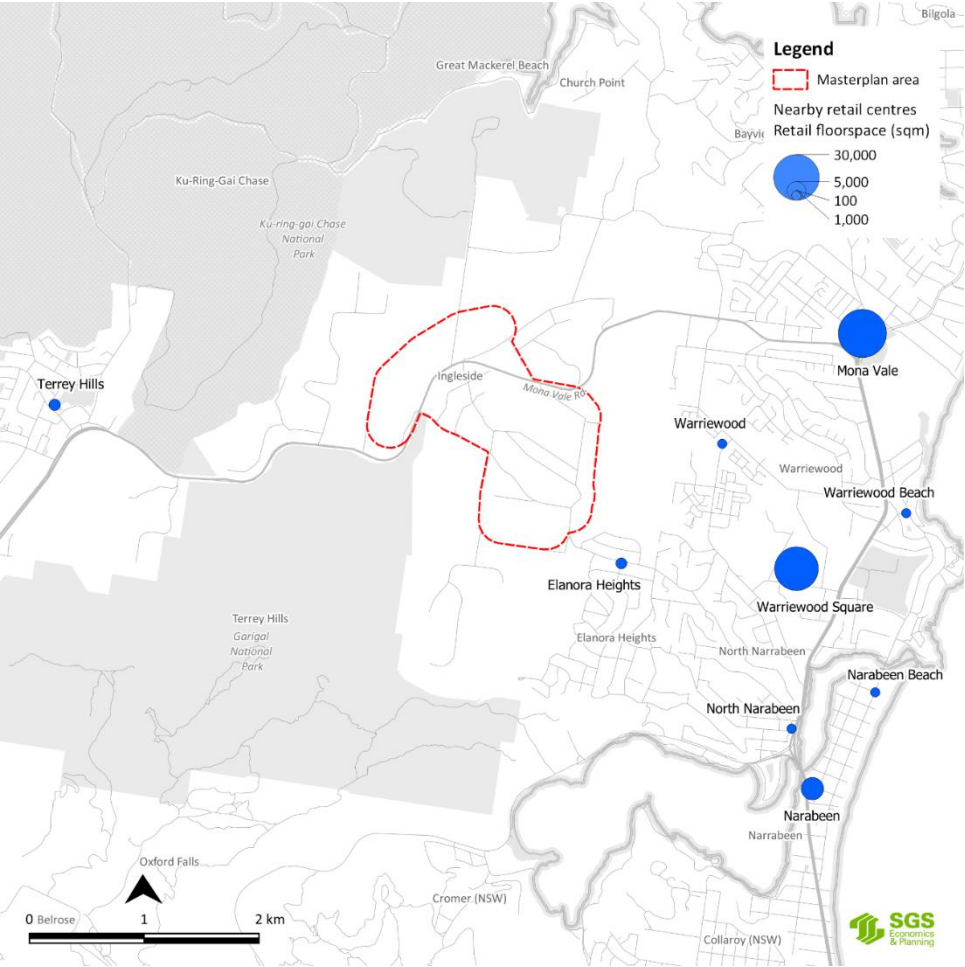


TABLE 27: RETAIL AND SERVICE COMPOSITION OF CENTRES NEAR INGLESIDE

Centre	Supermarket	Hospitality	Specialty Retail	Services
Terrey Hills	IGA Xpress	Several cafes and restaurants	Predominately groceries, newsagent and Australia Post	Several commercial and medical services, Community Centre, Library
Elanora Heights	IGA	Several cafes and restaurants	Some groceries, Australia Post, Pharmacy	Some commercial services, community centre
Warriewood	IGA Xpress	One cafe	-	-
Warriewood Square	Woolworths & Coles	Several cafes	Wide range of specialty retail	Some commercial services, community centre
Mona Vale	Woolworths, Coles & ALDI	Wide range of cafes and restaurants	Wide range of specialty retail	Wide range of commercial, medical and other services, library, community centre
Narrabeen	Woolworths	Range of restaurants and cafes	Moderate range of specialty retail	Several commercial and medical services, community centre

Small population serving retail centres typically have a focus on sale of day to day fresh groceries, hospitality and local services, with some other specialty retail (for example clothing or household goods) possible but only constituting a small fraction of the centre's retail offering. Terrey Hills, Elanora Heights and Warriewood provide local examples of such centres, each of which is anchored by a small supermarket. Their approximate floorspace composition is provided in the table below.

TABLE 28: APPROXIMATE FLOORSPEACE COMPOSITION OF NEARBY SMALL RETAIL CENTRES

	Supermarket	Other food	Hospitality	Other retail	Total
Elanora Heights	192	398	673	595	1,858
Terrey Hills*	100	224	1,861	1,735	3,920
Warriewood	175		90		265

*Note the reported values for Terrey Hills include nearby premises along Mona Vale Road, while the actual centres is smaller at around 2,000 sqm of floorspace in total

8.5 Retail impact modelling

The impact of development occurring at Ingleside on other retail centres has been tested. It has been assumed that in the base case no additional population growth occurs at Ingleside. Compared to the addition of both the planning residential development and a retail centre. Two different potential sizes of retail centres have been tested at Ingleside: a smaller and larger centre each anchored by a small supermarket and with a large hospitality presence compared to the size of the centre.

TABLE 29: THE SIZES OF POTENTIAL CENTRES AT INGLESIDE USED FOR IMPACT TESTING (SQM)

	Supermarket	Other food	Hospitality	Other	Total retail floorspace
Small centre	200	100	200	100	600
Medium centre	600	300	600	300	1,800

The modelled change in trading performance under the base case without development at Ingleside is shown in the following table. This change is quantified as the percentage change in inflation adjusted modelled retail trading density in each centre.

In the base case, there is expected to be a decline in trading performance of all nearby centres as the market share of online retail increases, and only limited population growth occurs in line with forecasts. Centres like Warriewood Square containing a higher proportion of their floorspace in retail categories susceptible to online competition like discount department stores or clothing are forecast to have a larger decline in trading performance.

TABLE 30: CHANGE IN TRADING PERFORMANCE FROM 2016 WITHOUT DEVELOPMENT AT INGLESIDE

Online scenario	Centre	2021	2026	2031	2036
Medium online	Elanora Heights	-5.5%	-9.6%	-6.2%	-0.3%
	Terry Hills	-9.8%	-9.0%	-4.8%	-3.8%
	Mona Vale	-3.8%	-7.9%	-4.4%	+1.7%
	Warriewood Square	-4.5%	-10.1%	-9.9%	-6.4%
High online	Elanora Heights	-6%	-12%	-11%	-8%
	Terry Hills	-11%	-12%	-10%	-12%
	Mona Vale	-5%	-12%	-12%	-11%
	Warriewood Square	-7%	-15%	-19%	-20%

The impact of development occurring at Ingleside, including a centre, is shown in the table below. Impacts are quantified as a percentage change in the turnover at each of the centres nearest to Ingleside compared to the base scenario. In all cases the increase in population at Ingleside increases the turnover at other centres. The size of this effect is greater than the amount of turnover diverted to Ingleside, leading to an overall increase in retail turnover at each of the other centres.

The percentage impacts are very similar under both online retail market share scenarios.

TABLE 31: % IMPACT ON TURNOVER IN CENTRES AS A RESULT OF RESIDENTIAL AND COMMERCIAL DEVELOPMENT AT INGLESIDE

Centre	Small centre scenario		Medium centre scenario	
	2031	2036	2031	2036
Elanora Heights	+6.5%	+6.2%	+4.1%	+3.8%
Terry Hills	+1.5%	+1.4%	+0.9%	+0.8%
Mona Vale	+0.7%	+0.6%	+0.2%	+0.2%
Warriewood	+1.4%	+1.3%	+0.9%	+0.8%

The table below shows the modelled percentage change in trading performance of the centres nearest Ingleside if development at Ingleside does occur in line with the scale of the proposed masterplan. In all cases except Mona Vale and Elanora Heights under the medium online scenario in 2036 there is expected to be a decrease in trading performance compared to 2016, although the decreases are generally smaller than under the base scenario due to the positive impacts on overall turnover of the development scenario compared to the base scenario.

TABLE 32: CHANGE IN TRADING PERFORMANCE FROM 2016 WITH DEVELOPMENT AT INGLESIDE

Online retail scenario	Centre	Small centre scenario		Medium centre scenario	
		2031	2036	2031	2036
Medium online	Elanora Heights	-0.1%	5.9%	-2.2%	3.7%
	Terry Hills	-3.4%	-2.5%	-3.9%	-3.0%
	Mona Vale	-3.8%	2.3%	-4.1%	2.0%
	Warriewood	-8.6%	-5.1%	-8.9%	-5.5%
High online	Elanora Heights	-4.8%	-2.3%	-6.9%	-4.4%
	Terry Hills	-8.7%	-11.1%	-9.2%	-11.6%
	Mona Vale	-11.6%	-10.8%	-11.9%	-11.1%
	Warriewood	-17.8%	-19.4%	-18.2%	-19.7%

8.6 Summary

- There is likely to be demand for a small supermarket-based centre at Ingleside serving the day to day retail needs of future residents, although a larger centre is likely to struggle to compete with other nearby larger centres and would likely impact on the wider centre hierarchy of the Northern Beaches.
- Mona Vale and Warriewood are likely to serve the retail needs of Ingleside apart from those that could be fulfilled at a local centre. The distances to Mona Vale and Ingleside are reasonable to expect people to travel for this purpose.
- The expected population growth at Ingleside could support a local retail centre, for example with around 1,000sqm of retail floorspace. A small supermarket, hospitality businesses and specialty food stores are likely to be in highest demand in such a centre. There is also likely to be some minor demand for population serving commercial premises, which is not included in floorspace values in this chapter, to accommodate a handful of local businesses (such as hair dressers, accountants or real estate agents) as well as some shared commercial facilities.
- Modelling shows retail centres of 600sqm and 1,800sqm at Ingleside would not impact on the turnover of other centres, which would be increased overall due to the additional population in the sub-catchment.
- As the online retail market share increases in the future, there is a risk that the trading performance of retail centres will decrease. In this context, the provision of a larger centre at Ingleside would be inconsistent with the need to consolidate activity in Mona Vale to facilitate economic development.

9. Opportunities and constraints

This chapter distils a series of identified opportunities and constraints that are likely to inform the development and realisation of the Ingleside Masterplan.

9.1 Opportunities

There are a number of potential opportunities to be explored at Ingleside in relation to commercial, retail and residential development that arise from the analysis in this report.

Retail and commercial

- The provision of a small retail centre would increase access to retail facilities for the future population
- Ingleside has good access to larger retail centres at Mona Vale and Warriewood Square, increasing its appropriateness for residential development
- Trends towards working at home (including as a result of COVID-19), and the economic profile of the Northern Beaches suggest a potential market for small office, shared commercial facilities (such as meeting rooms) and co-working spaces near where people live
- There is likely to be demand for some small commercial space catering to local population services within a local centre
- A local centre would perform best if it is located in the centre of the Ingleside Precinct, ideally co-located with open space and social infrastructure. A location next to Mona Vale Road could also generate additional retail sales by capturing drive-by traffic, although this could have design implications in terms of traffic access and car parking.

Residential

- There is an established market for new separate houses, attached dwellings and apartments in the Mona Vale area, suggesting that there would be demand for these kinds of dwellings at Ingleside. This is bolstered by LGA-wide trends in housing preferences towards attached dwellings and apartments, and by forecast continued population growth, notwithstanding the likely short-medium term impacts of COVID-19 and an associated drop in population growth and economic growth.
- The forecast for an aging population in the Northern Beaches suggests opportunities for dwellings for downsizers (a function attached dwellings could fulfill) and seniors accommodation if this is deemed to be an appropriate design outcome
- Development densities in Ingleside are currently low, and residential subdivision is likely to present a significant uplift, encouraging development

9.2 Constraints

Location and accessibility

- Ingleside is within a 30 minute public transport catchment of Mona Vale, but does not have access to a variety of frequent public transport routes or attractive active transport connections to other centres
- There are currently few shops or services immediately nearby
- Topography limits the ability to walk or ride a bike from Ingleside to nearby centres and services

Economy

- The economic portrait, growth forecasts and strategic aspirations for Mona Vale limit the potential for economic development at Ingleside to premises serving the local community

Development constraints

- There are likely to be a variety of development and environmental constraints at Ingleside which have not been considered in this study, including susceptibility to bushfire and availability of evacuation routes.

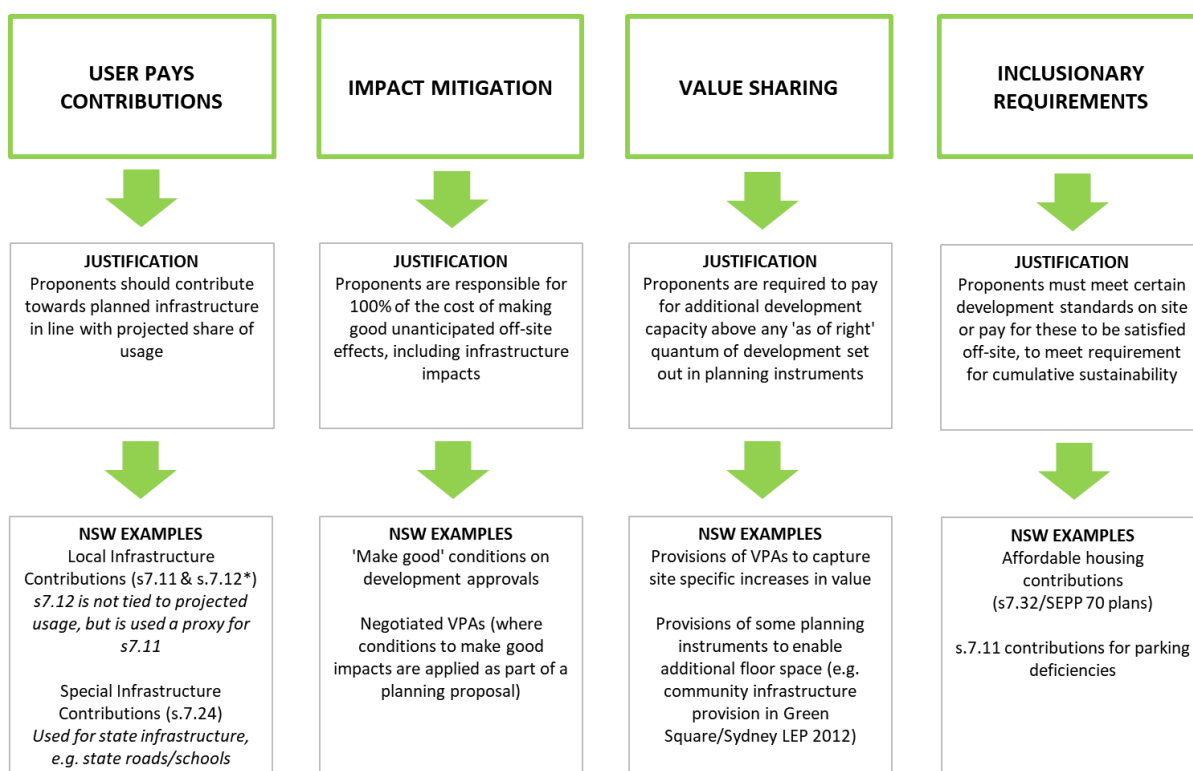
10. Development contribution mechanisms

This chapter provides an overview of different development contribution mechanisms that may be relevant to development at Ingleside. This chapter does not undertake a feasibility assessment of the various contributions, but is considered as a guide to help inform decision making.

10.1 Conceptual framework overview

SGS conceptualises development contributions within NSW (and Australia) using a ‘four frames’ approach. Each of these frames categorises mechanisms for development contributions into four groups. This is shown in Figure 32 below.

FIGURE 32: CONCEPTUAL FRAMEWORK FOR NSW DEVELOPMENT CONTRIBUTIONS



Source: SGS Economics and Planning, 2020

10.2 User pays contributions

User pays contributions are the primary method by which developer contributions are used to fund infrastructure in the NSW context.

The key rationale for user pays contributions is that the cost of planned infrastructure required to meet the needs of incremental development should be shared across existing and new development. They involve up-front user charges, with costs calculated on a 'share of usage' basis, using occupancy rates based on different types of development.

It is uncommon for these contributions to fully recover 100% of the cost of new infrastructure. This category includes local infrastructure contributions and special infrastructure contributions.

Local infrastructure contributions – s.7.11

Section 7.11 (s.7.11) contributions can be charged where there is a demonstrated link between new development and an increased demand for infrastructure. This link is referred to as the 'nexus', which must be demonstrated in order for contributions to be levied. In effect, this means that works which are levied for under s7.11 must be works that increase the carrying capacity of infrastructure, with most expenditure for the recurrent maintenance of infrastructure being excluded. Depending on the current and proposed levels of infrastructure provision, it may be necessary to apportion some of the cost of new infrastructure to existing residents within the area.

Councils can levy a s7.11 contribution if they have prepared and exhibited a development contributions plan which has been prepared in accordance with the EP&A Act and Regulations.

s7.11 contributions are typically limited to a maximum of \$30,000 per dwelling in greenfield as a result of a ministerial direction. Plans are able to levy a higher amount than this, although they are required to be reviewed and approved by IPART in order to do so, and are limited to funding 'essential' infrastructure (in effect limiting the range of infrastructure types which can be funded).

These contributions are typically used to fund:

- Open space and recreation assets
- Community facilities (such as community centres or libraries)
- Local roads and active transport infrastructure
- Public domain improvements
- Stormwater management infrastructure
- The preparation and administration of s.7.11 plans themselves.

Special infrastructure contributions – s7.24

Special infrastructure contributions (SIC) are largely similar to local infrastructure contributions levied under s7.11, although they differ in that they are used to fund regional and State infrastructure. These contributions are administered by the Department of Planning, Industry and Environment (although it falls to councils to implement their collection through conditions of development consent).

A limited number of these contributions are currently in place, most notably occurring in greenfield development precincts in Western Sydney. They are utilised where the State government is heavily involved in the land use planning process, such as in DPIE's Planned Precincts.

SIC levies are used to fund different types of infrastructure to local infrastructure contributions and can be applied in conjunction with/addition to s7.11 contributions. SIC levies are used to pay for growth infrastructure, such as:

- State and regional roads
- Transport facilities (usually bus infrastructure)
- Regional open space, pedestrian links, and cycleways
- Various types of social infrastructure (i.e. school, health, and emergency services infrastructure)

Local infrastructure contributions – s7.12 flat rate levies

As an alternative method of funding local infrastructure, s.7.12 contributions plans allow for the application of a flat-rate levy based on the anticipated cost of development. This typically applied at the following rates; however, these rates may be increased with the approval of DPIE:

Cost of development	Rate
\$0 - \$100,000	0% (no charge)
\$100,001 - \$200,000	0.5%
> \$200,001	1%

These contributions are not tied to the projected usage of infrastructure resulting from new development and as such do not fit neatly within the frame of 'user pays' contributions. Despite this, they are included in this conceptual frame since they have been created to provide an alternative method to councils using s7.11 to fund local infrastructure.

These contributions are more flexible councils in their application, as there is no need to demonstrate a nexus between anticipated development and the infrastructure proposed to be funded. Notably, this reduces the complexity and cost of preparing and administering a contributions plan when compared to s.7.11 contributions plans.

Although they are more flexible and easier to apply, s.7.12 plans typically yield a dramatically lower total value of contributions, so they are consequently less ideal in growth scenarios. They are typically better applied in areas where growth is anticipated to be low or difficult to forecast and where infrastructure costs are expected to be commensurately low and spread over time. They may yield higher total contribution amounts (compared to s.7.11) when applied to non-residential development.

It is important to note that Council cannot require both a s.7.11 and a s.7.12 contribution from the same development, such as in the case of a mixed use development, where the residential component may be covered by a s.7.11 plan and the retail/commercial component would be covered by a s.7.12 plan. In this case, only one charge may be applied.

10.3 Impact mitigation

The key rationale for impact mitigation measures is that the cost of addressing unanticipated adverse off-site impacts which may result from a development should be borne by the proponent.

Typical examples of this include requiring a developer to undertake mitigation works to prevent stormwater run-off affecting a neighbouring property or requiring a developer to upgrade a road intersection where their proposed development would adversely impact on that intersection's functionality.

Impact mitigation measures differ from user-pays contributions in that these costs cannot be identified in advance and therefore cannot be 'pre-scheduled'. They are typically applied through conditions of development consent and are also referred to as 'make good' conditions.

Impact mitigation measures on a precinct scale, as in Ingleside would typically be expected to be identified as part of the master planning process and associated work (for example road or draining works. Required infrastructure and works would then be levied as part of a s7.11 plan and SIC if the impact is on state level infrastructure.

10.4 Value sharing

In its essence, land use planning represents a rationing of development rights and, through this rationing, opportunities for land value uplift are created. The key rationale for value sharing arrangements comes from the fact that upzoning or granting of development consents is a form of licensing by the community at large (in this case, a licensing of development rights), with the community being entitled to a share in the value created by licensing these rights.

Value sharing arrangements should be guided by the principle that the value captured should be proportional to the value created by the licensing of development rights.

Value sharing arrangements have only a limited application in NSW, although they have been becoming more accepted as an approach to funding infrastructure in recent years.

In NSW, they are primarily applied through voluntary planning agreements (VPAs), which often take place on an ad-hoc basis through negotiations between proponents and consent authorities. Typical examples of this process involve the provision of additional development rights (above the level established in the LEP and DCP controls) as an incentive to provide infrastructure or other community benefits.

For VPAs to be used to effectively it is important for the relevant council to have a robust VPA policy in place, which establishes the terms on which the council will negotiate, allows for transparency in the process and minimise corruption risks.

Despite the prominence of VPAs in this conceptual frame, value sharing arrangements have also been implemented in statutory plans in a limited number of settings. These can include LEP controls which provide an additional amount of floor space where a proponent meets certain criteria, such as providing FSR or HOB bonuses in return for the provision of community infrastructure (e.g. cl.6.17 of the Randwick LEP 2012, cl.6.14 of the Sydney LEP 2012). This allows for a uniform and codified approach to value sharing incentives which is not dependant on negotiation of VPAs on a case-by-case basis.

10.5 Inclusionary requirements

The key rationale for using inclusionary requirements is to ensure that required infrastructure or design features can be integrated into developments, such that they can proceed in an orderly fashion, sustainably, and within community expectations.

Inclusionary requirements are codified standards which require the provision or inclusion of certain features or infrastructure as part of a development. Payment of cash-in-lieu of provision is often accepted, such that the specific infrastructure or features can be provided locally by a party other than the developer.

The main example of inclusionary requirements within NSW are affordable housing requirements which operate in certain areas of the state, such as affordable housing schemes prepared under SEPP 70 and section 7.32 of the Act. Another example of inclusionary requirements can be found in some s7.11 plans, where a cash-in-lieu contribution is required in cases where a development provides less than the specified amount of parking required in the relevant Council's DCP.

10.6 Implications for Ingleside

The standard approach to development contributions in greenfield areas is likely to be appropriate to Ingleside, depending on how much infrastructure is required to be delivered (which would be determined as the result of further study):

- The use of a s7.11 contribution to levy funds for local infrastructure, from which up to \$30,000 per property can be levied without seeking IPART approval, and more can be levied per property with IPART approval. A s7.12 contribution would likely not generate enough funds to cover required infrastructure in a greenfield setting.
- The use of a SIC to levy for improvements to state infrastructure if significant upgrades are identified as needed and the use of a SIC would not substantially compromise development feasibility.
- An affordable housing contribution under SEPP 70 (operating as a value sharing mechanism) would be strongly supported in Ingleside given that there is likely to be a large land value uplift and modelling conducted for the Northern Beaches Housing Strategy identified a need for additional affordable housing in the Northern Beaches.
- Further value sharing considerations would only be recommended if a single landowner owns and intends to develop a substantial precinct formed of multiple properties, in which case it may be appropriate to negotiate a planning agreement.
- Feasibility modelling suggests that a relatively high contribution rate may be supportable on medium and larger sites without making development unfeasible, but not on smaller sites. However, applying different contribution rates to different sites would not be consistent with the logic of contributions as providing needed infrastructure to service development. Feasibility on small sites could increase in the future due to changes in the property market despite a required development contribution.
- More detailed feasibility modelling and land valuation analysis is needed to determine in detail the quantum of contribution which could be levied, as SGS's development cost assumptions are

relatively high-level and intended to inform strategic planning rather than development contributions.

11. Conclusion

The Ingleside development will be home to an estimated 2,503 – 2,528 people when finally completed, depending on the preferred scenario. While relatively low compared to other greenfield releases in Greater Sydney, this is 11% of the forecast population increase across the Northern Beaches between 2016 and 2036. Accommodating housing diversity at Ingleside will be important to meet the needs of the proposed community.

This growth, located several kilometres west of Mona Vale will require retail, community and even some employment needs to be met.

Building on the strategic planning directions outlined in the Northern Beaches' LSPS, it is important to recognise that Ingleside is part of a wider local economy, and the accommodation of at least some of these needs should be considered at this wider geography.

Retail modelling indicates demand for a local centre of up to around 1,000 sqm, with a centre of this size of larger unlikely to reduce the turnover of other centres.

However, from a strategic planning perspective, there is a concurrent need to support the continued growth of Mona Vale as the Strategic Centre of the Northern part of the LGA, home to retail, commercial and other services.

The Ingleside Precinct therefore should 'think small' in its provision of retail, with the provision of only a small local supermarket to provide day-to-day convenience needs, without adversely impacting the trade or other centre hierarchy functions of Mona Vale and even Warriewood to the south. This would take the form of a small supermarket with provision for a couple of other smaller specialty stores.

From a commercial or employment perspective, a similar approach should be taken. The Northern Beaches' aspiration for Mona Vale to accommodate local employment uses should be fully supported, with very little commercial floor space provided in the Ingleside precinct. What could be potentially supported are several small ground floor shops that could accommodate, for instance, a local cafe, doctors surgery or chemist. This should also be flexible enough to be used for local community facilities if required.

While various trends point to the growth of co-working, again the focus on supporting vibrancy in Mona Vale would indicate that such a use is not suited to the Ingleside Precinct. However, with COVID likely to have a lasting impact on how local people work (particularly those working in the CBD or other major commercial centres), a future centre may provide shared meeting rooms to support these workers. It would be expected however that such a facility would be part of another piece of community infrastructure (such as a local library or community hall) rather than delivered in commercial suites by a private supplier.

High-level feasibility modelling shows that residential subdivision and development is likely to be feasible on medium and large sites within Ingleside (those of around 4,000sqm or larger). Smaller sites may be unfeasible for development in the short term. This means that development intended for small sites may take longer to occur, and the onus is placed on larger sites for early-stage development in the Precinct. Coupled with master-planning and design, this should inform development expectations and which sites are identified as part of early-stage development. Detailed implications for precinct-design

and the appropriate scale of development are beyond the scope of SGS's work and should be considered through the masterplanning process and in design guidelines. Feasibility will need to be balanced with other important strategic planning and design considerations to ensure the desired housing character is developed at Ingleside.

Appendix A: Broad Industry Categories

Four broad industry categories are used in the economic profiling in this report, and by the Greater Sydney Commission. These broad categories are groupings of 1-digit industry classification from the Australian and New Zealand Standard Industrial Classification (ANZSIC) used by the Australian Bureau of Statistics.

Knowledge Intensive

- Information Media and Telecommunications
- Financial and Insurance Services
- Rental, Hiring and Real Estate Services
- Professional, Scientific and Technical Services
- Administrative and Support Services
- Public Administration and Safety

Health and Education

- Education and Training
- Health Care and Social Assistance

Population Serving

- Construction
- Retail Trade
- Accommodation and Food Services
- Arts and Recreation Services
- Other Services

Industrial

- Agriculture
- Forestry and Fishing
- Mining
- Manufacturing
- Electricity, Gas, Water and Waste Services
- Wholesale Trade
- Transport, Postal and Warehousing

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