NORTHERN BEACHES EMPLOYMENT STUDY

FINAL
DECEMBER 2019

Prepared for
Northern Beaches Council

Independent insight.

SGS Economics and Planning Pty Ltd
ACN 007 437 729
www.sgsep.com.au
Offices in Canberra, Hobart, Melbourne, Sydney

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EXECUTIVE SUMMARY

Northern Beaches Council has commissioned SGS Economics & Planning to undertake an Employment Lands Study for the Northern Beaches Local Government Area (LGA).

This paper is the Northern Beaches Employment Lands Strategy.

Context

Northern Beaches Council is a recent amalgamation of Warringah, Manly and Pittwater Councils. Located in the north of Greater Sydney, encompassing Ku-ring-gai National Park in the west and extending through to the east coast, Northern Beaches Council contains a number of the Greater Sydney Commission (GSC) nominated Strategic Centres, namely French Forest Health and Education Precinct, Brookvale-Dee Why, Manly, Mona Vale, as well as identified local centres including Balgowlah, Manly Vale, Freshwater, Narrabeen, Warriewood, Newport, Avalon, Forestville, Glenrose. These centres contain a mixture of land uses that span population serving, health and education, commercial and industrial industries.

Strategic policy and priority review

State and local government strategic plans provide the context for future land use in the economic centres of Northern Beaches LGA. These plans anticipate increases in population and employment and provide guidance about where this growth should occur.

Strategic plan objectives and actions include:

- Leveraging the investment into the health and education precinct at Frenchs Forest and growing business opportunities and activity in the centre.
- Growing investment, business opportunities and jobs in strategic centres, including Brookvale-Dee Why, Manly and Mona Vale.
- Ensuring that industrial and urban services land is planned, retained and managed in recognition of the role and function that industrial lands play in the Greater Sydney context.
- Planning for a city that is supported by infrastructure to enhance local employment opportunities and access to services.
- Facilitating innovative environments where start-up businesses are supported and connected and assisting home-based businesses.
- Activating urban centres to increase economic activity.
- Ensuring the community is stimulated through a range of creative activities, including night-time opportunities.

Socio-economic profile

Between 2011-2016, there was an increase of approximately 15,235 people in the LGA. Most growth occurred in the Brookvale-Dee Why catchment (+7,090 persons). The Northern Beaches LGA is forecast to have lower growth rates than the Greater Sydney region and the North District.

Northern Beaches LGA has an increasingly ageing population but there are also a number of overseas migrants locating in Manly and Brookvale-Dee Why that tend to have a younger profile.

Most residents work in knowledge intensive industries (for example finance, media, administration and technical services) and population servicing industries (for example construction, retail trade, accommodation and food services) at approximately 32 and 31 per cent respectively.

In relation to employment within the Northern Beaches LGA, there is a strong presence of population serving industries when compared to Greater Sydney and the North District. There is a slightly higher proportion of health and education workers than Greater Sydney. There is significantly less knowledge intensive workers located in the LGA than compared to Greater Sydney and the North District. The LGA has experienced growth in health and education industries, higher than Greater Sydney and the North District. Industrial industries are in decline in the LGA, a similar occurrence seen across Greater Sydney and the North District.

Retail Trade, Accommodation and Food Services and Construction show slightly more specialisation for the LGA when compared to Greater Sydney. Health Care and Social Assistance and Education and Training are two of the larger industries in the that are growing, despite not being the most specialised industries for the LGA.

Northern Beaches LGA has a self-containment rate of approximately 54 per cent, meaning over half of the resident workforce also work locally. Self-containment generally increases moving further north in the LGA (Manly 41 per cent; Frenchs Forest 43 per cent; Brookvale-Dee Why 55 per cent; Mona Vale 61 per cent).

The LGA has a self-sufficiency rate of approximately 77 per cent, meaning over three quarters of the local jobs available are filled by working residents of the Northern Beaches.

For the journey to work, between 2006 and 2016, there was a slight increase in the proportion of people using public transport to access work and concurrently a drop in those using vehicles. However, both these figures were far less than the proportion seen in Greater Sydney and the North District.

Brookvale-Dee Why centre is more accessible from surrounding suburbs in the LGA, in thirty minutes in the AM peak by public transport, when compared to accessibility to Frenchs Forest.

For the year ending March 2018, Destination NSW estimates a quarter of all international visitors to NSW either stayed overnight or visited Manly on a day trip. Domestically, three per cent of visitors to NSW stayed overnight in Manly. This highlights the value of Manly as a tourism hub for the Northern Beaches and also Greater Sydney.

Economic trends and drivers

Australia's groceries market has been dominated by Woolworths and Coles brands. However, in the last decade this has been changed by the rise of two main competitors – IGA and Aldi. In addition to the shifts in market share of supermarket operators, there are also shifts in Australian consumer lifestyles and food retailing preferences, particularly for organics and the development of smaller format supermarkets.

Regional suburban centres have emerged as the preferred destination for many consumers and preferred location for retailers which has often come at the expense of traditional local retail centres. It has been noted that the popularity of regional shopping centres is being challenged with the rise of online retailing, emerging international brands, pop-up stores, general weak retail sales growth and smaller neighbourhood centres offering a range of conveniences. Repurposing these centres is seen as a requirement to gain back market share.

Food retailing has been one of the better performers in the retail sector, largely driven by a boom in breakfast and lunches at cafes and online ordering of take-way for dinner. Outdoor dining in Sydney has remained popular, particularly given the conducive climate.

Online retail currently makes up a small proportion of retail turnover in Australia where online spending has been estimated at about 6.4 per cent of total retail turnover. Despite these low levels, growth has been strong. For traditional 'bricks and mortar' retailers, to overcome the impact of online retailing and optimise centre competitiveness, landlords are providing increased floorspace for food, beverage, grocery and non-retail uses to align with strong customer trends towards dining out.

Part of the experience of online retailing is also an expectation that goods will be rapidly delivered to customers. With the growth in online retailing and e-commerce and raised expectations for speedy delivery, ‘last mile’ logistics has become a priority. In terms of land, this places an even higher value on logistics, industrial services and dispatch land uses in the right areas close to populations.

The value of the night-time economy in Greater Sydney is estimated to be over $27.2 billion per annum. A vibrant night-time economy should be seen as a broader range of activities that can include 24-hour gyms, late night supermarkets, other late-night shopping options, late night museum and gallery openings, food festivals, as well as the obvious options of bars, restaurants, nightclubs, theatre and performances and sporting events. It would include a range of activities that appeal to all age groups, both locals and visitors. Cities also have a number of shift workers that conduct road works, organise distribution and logistics or complete shifts at hospitals. All of these practical and entertainment activities are part of the night-time economy of a city and must be underpinned by extended hours of public transport.

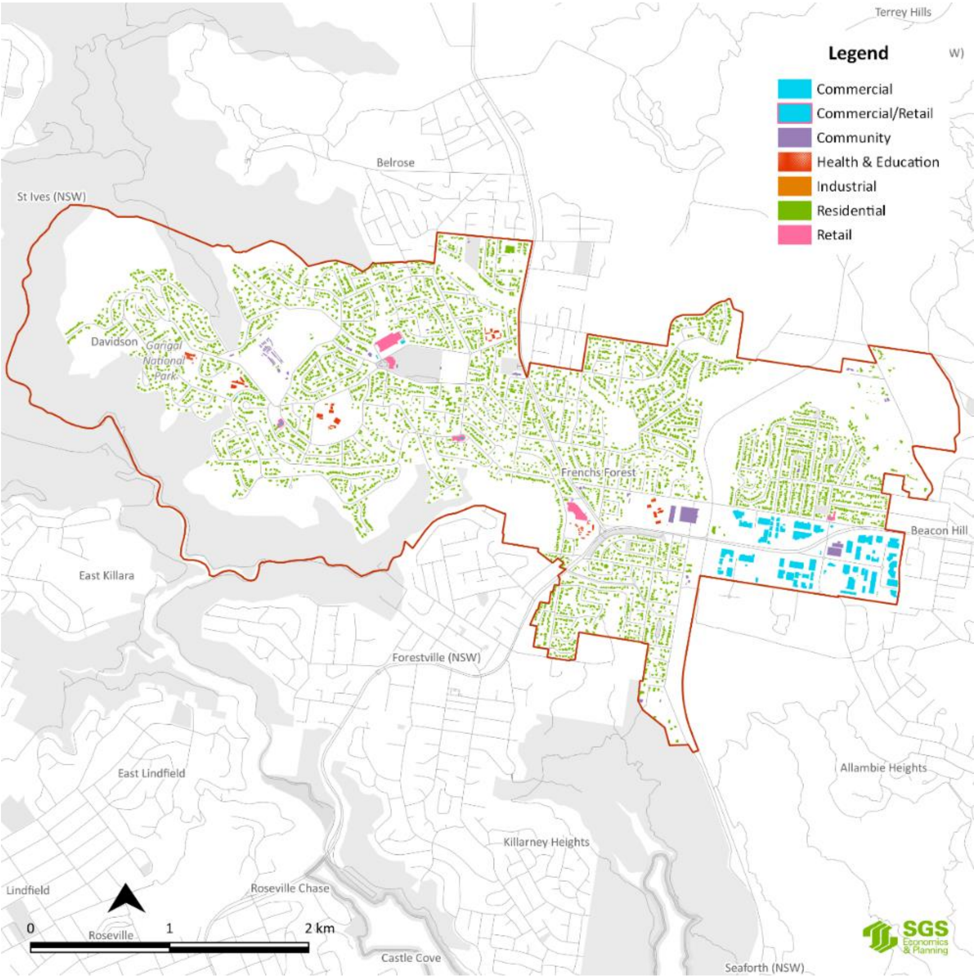
A 2015 business survey of Warringah Council area indicated that a high proportion of respondents were home-based businesses (37%), almost double the NSW wide estimate at 20%. Co-working spaces offer home-based businesses a cheaper solution when making that first move out of the home-office (rather than signing a lease on a commercial space). They are professional spaces that also give individuals working there a chance to meet and collaborate with other businesses of a similar size.

In 2015, 193 Member States including Australia adopted the 2030 Agenda for Sustainable Development. New developments and urban renewal projects are central to the development of sustainable cities and communities. There are a number of innovative business and design concepts that could be implemented to help progress the sustainability agenda for Northern Beaches Council for example vertical farming and smart infrastructure that can include environmental sensors.

Precinct profiles

Frenchs Forest

FIGURE 1: FRENCHS FOREST LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

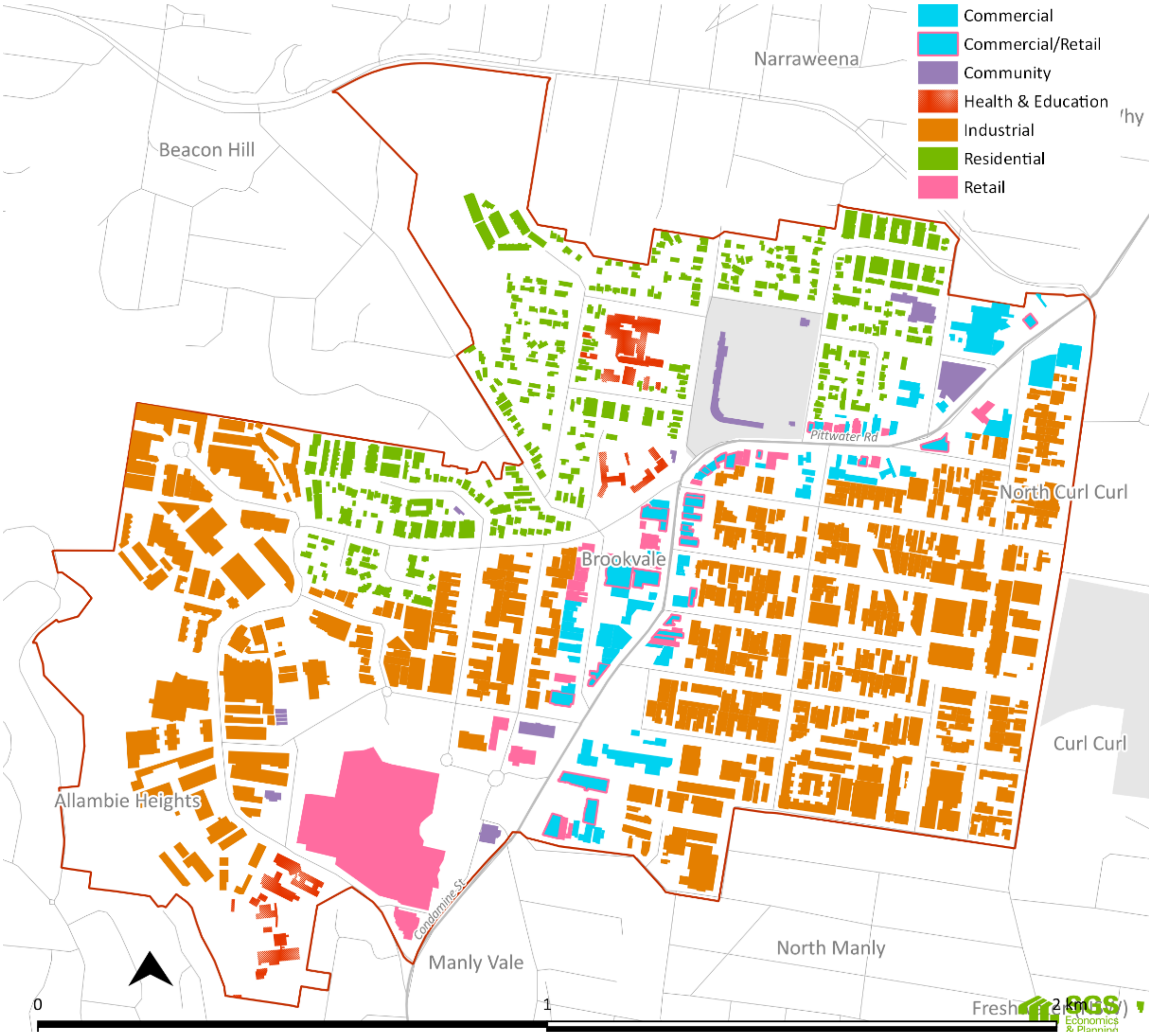
TABLE 1: FRENCHS FOREST LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	4,996	0.2%
	Other Food	765	0.0%
	Clothing	1,176	0.1%
	Hospitality	2,961	0.1%
	Household goods	195	0.0%
	Other Retailing	1,877	0.1%
	Department Stores	147	0.0%
Non-Retail	Residential	1,493,361	68.1%
	Commercial	516,365	23.5%
	Industrial	-	0.0%
	Health & Education	68,313	3.1%
	Community	103,123	4.7%
	Total	**2,193,278**	**100.0%**

Source: SGS Economics and Planning, 2019

Brookvale

FIGURE 2: BROOKVALE LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

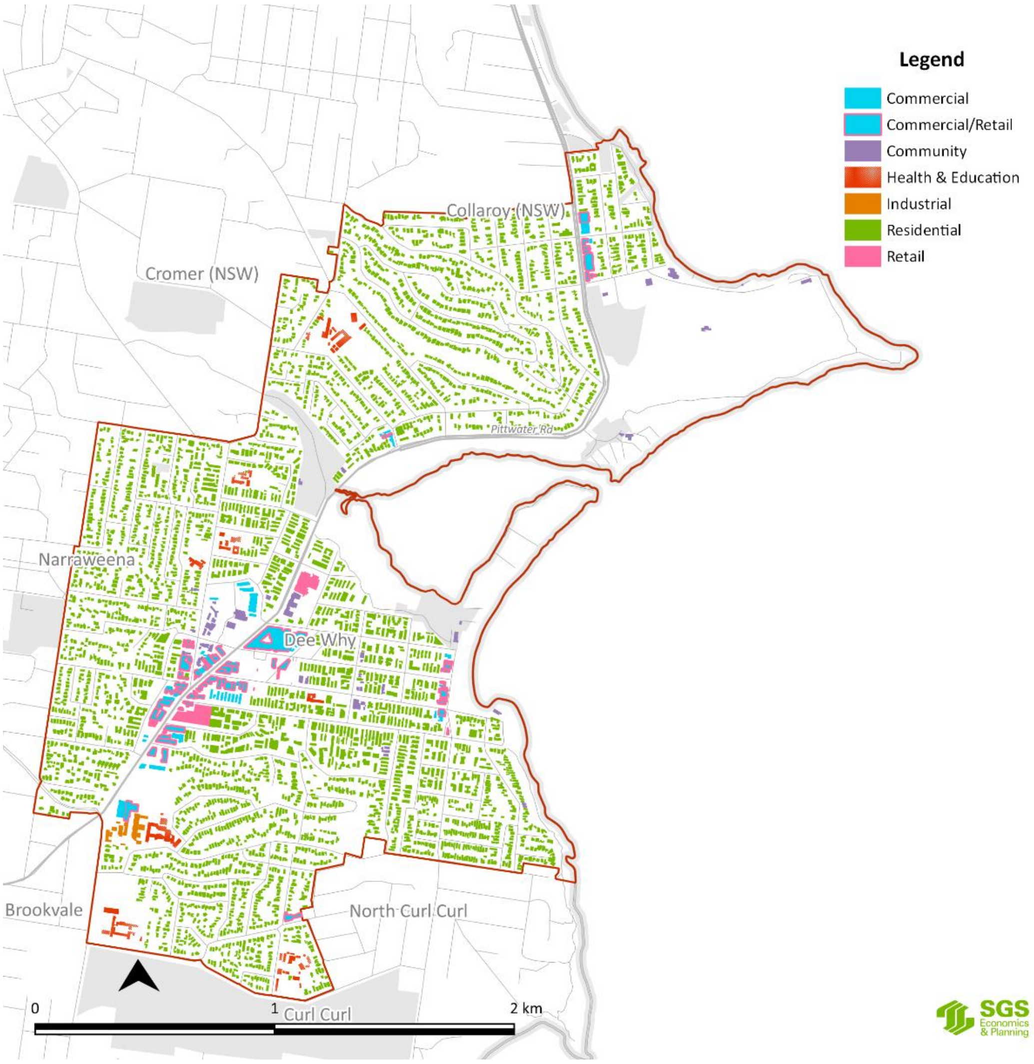
TABLE 2: BROOKVALE LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	12,799	1.4%
	Other Food	2,210	0.2%
	Clothing	35,405	3.8%
	Hospitality	5,237	0.6%
	Household goods	17,793	1.9%
	Other Retailing	14,307	1.5%
	Department Stores	43,363	4.7%
Non-Retail	Residential	157,946	17.0%
	Commercial	182,062	19.5%
	Industrial	342,989	36.8%
	Health & Education	75,749	8.1%
	Community	41,796	4.5%
	Total	**931,656**	**100.0%**

Source: SGS Economics and Planning, 2019

Dee Why

FIGURE 3: DEE WHY LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

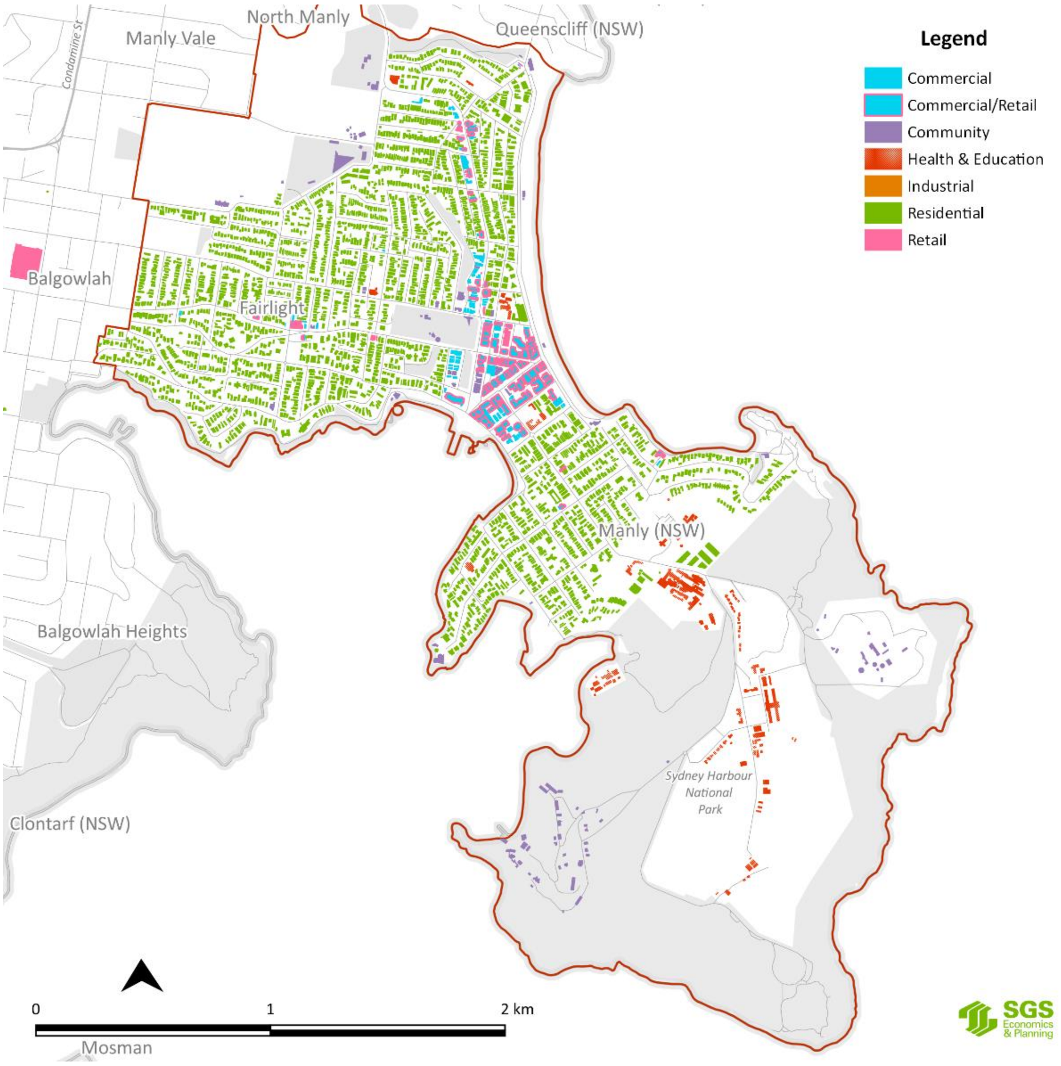
TABLE 3: DEE WHY LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	5,595	0.3%
	Other Food	2,524	0.1%
	Clothing	1,679	0.1%
	Hospitality	14,004	0.7%
	Household goods	8,490	0.5%
	Other Retailing	3,303	0.2%
	Department Stores	212	0.0%
Non-Retail	Residential	1,442,255	77.1%
	Commercial	259,894	13.9%
	Industrial	6,106	0.3%
	Health & Education	65,273	3.5%
	Community	62,180	3.3%
	Total	**1,871,515**	**100.0%**

Source: SGS Economics and Planning, 2019

Manly

FIGURE 4: MANLY LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

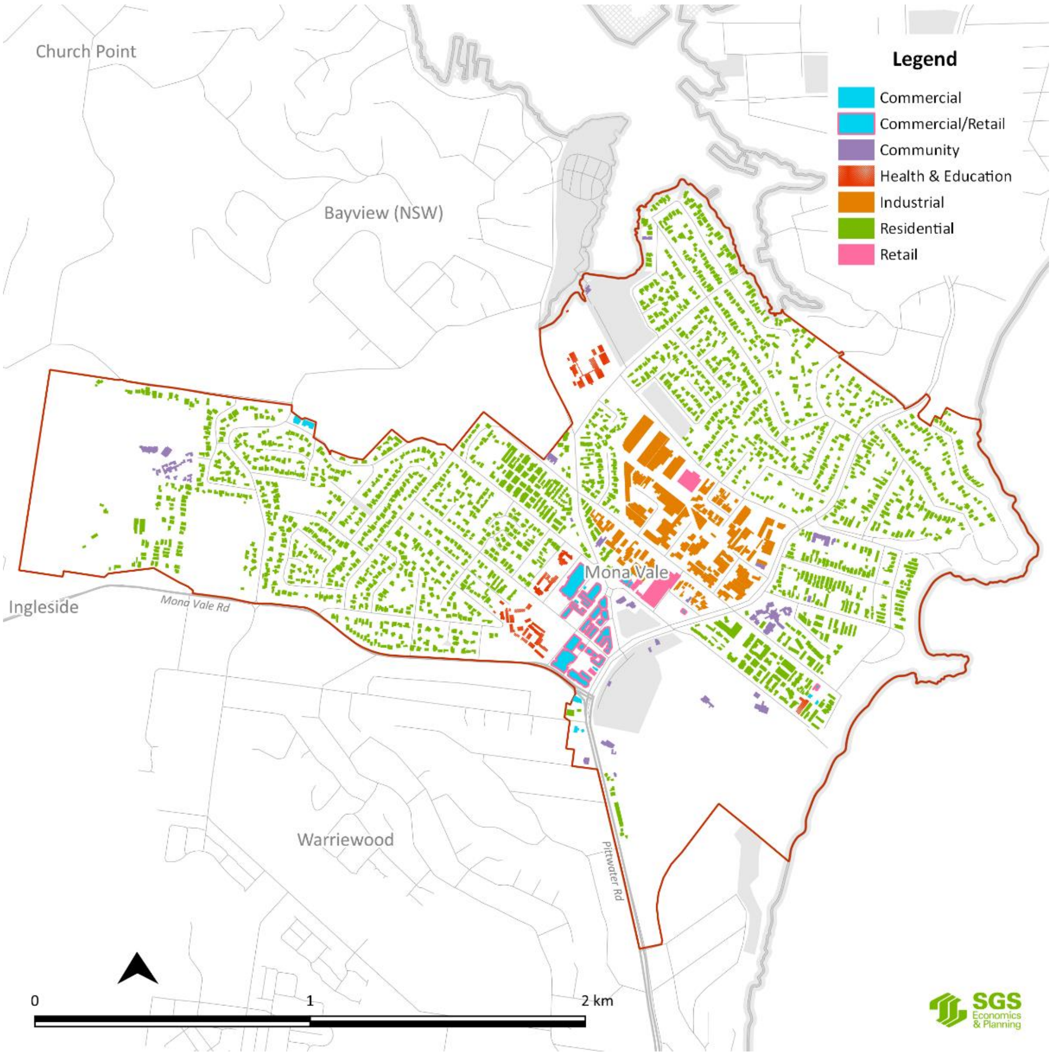
TABLE 4: MANLY LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	827	0.0%
	Other Food	2,619	0.1%
	Clothing	3,548	0.1%
	Hospitality	11,460	0.4%
	Household goods	2,917	0.1%
	Other Retailing	4,762	0.2%
	Department Stores	566	0.0%
Non-Retail	Residential	1,949,649	73.1%
	Commercial	255,780	9.6%
	Industrial	-	0.0%
	Health & Education	250,751	9.4%
	Community	185,879	7.0%
	Total	2,668,758	100.0%

Source: SGS Economics and Planning, 2019

Mona Vale

FIGURE 5: MONA VALE LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

TABLE 5: MONA VALE LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	6,605	0.7%
	Other Food	2,676	0.3%
	Clothing	2,321	0.2%
	Hospitality	4,329	0.4%
	Household goods	8,175	0.8%
	Other Retailing	1,827	0.2%
	Department Stores	87	0.0%
Non-Retail	Residential	664,619	67.6%
	Commercial	102,341	10.4%
	Industrial	83,906	8.5%
	Health & Education	41,111	4.2%
	Community	65,559	6.7%
	Total	983,557	100.0%

Source: SGS Economics and Planning, 2019

Avalon

FIGURE 6: AVALON LAND USE

Source: SGS Economics and Planning, 2019

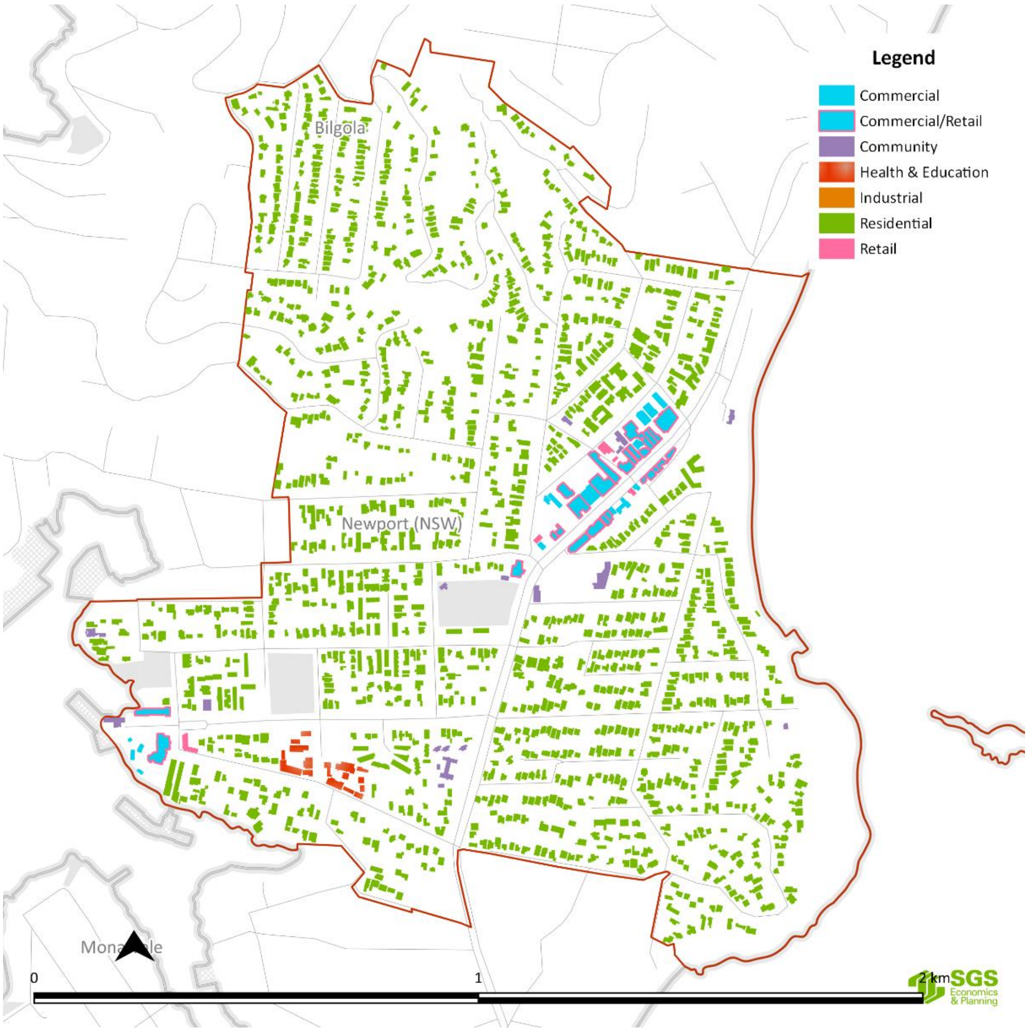
TABLE 6: AVALON LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	163	0.1%
	Other Food	698	0.2%
	Clothing	1,833	0.6%
	Hospitality	3,582	1.2%
	Household goods	1,689	0.6%
	Other Retailing	1,263	0.4%
	Department Stores	-	0.0%
Non-Retail	Residential	201,819	70.1%
	Commercial	35,637	12.4%
	Industrial	-	0.0%
	Health & Education	15,441	5.4%
	Community	25,865	9.0%
	Total	287,991	100.0%

Source: SGS Economics and Planning, 2019

Newport

FIGURE 7: NEWPORT LAND USE



Source: SGS Economics and Planning, 2019

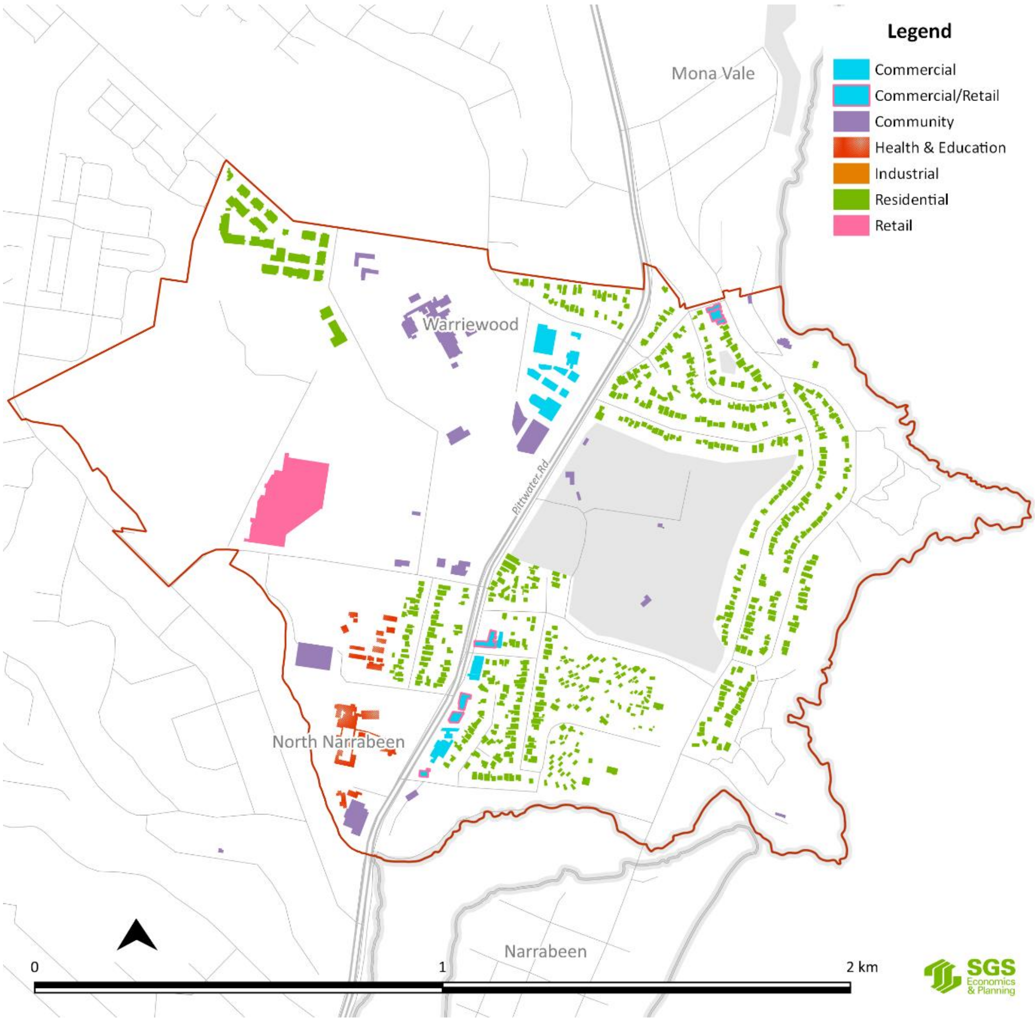
TABLE 7: NEWPORT LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	720	0.1%
	Other Food	849	0.1%
	Clothing	1,035	0.1%
	Hospitality	4,841	0.6%
	Household goods	821	0.1%
	Other Retailing	1,789	0.2%
	Department Stores	-	0.0%
Non-Retail	Residential	776,822	90.2%
	Commercial	48,944	5.7%
	Industrial	-	0.0%
	Health & Education	9,437	1.1%
	Community	16,145	1.9%
	Total	861,402	100.0%

Source: SGS Economics and Planning, 2019

Warriewood

FIGURE 8: WARRIEWOOD ACTIVITY CENTRE LAND USE



Source: SGS Economics and Planning, 2019

TABLE 8: WARRIEWOOD ACTIVITY CENTRE LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	8,719	2.2%
	Other Food	497	0.1%
	Clothing	4,548	1.1%
	Hospitality	1,048	0.3%
	Household goods	1,002	0.3%
	Other Retailing	5,950	1.5%
	Department Stores	7,435	1.9%
Non-Retail	Residential	189,425	47.4%
	Commercial	59,673	14.9%
	Industrial	-	0.0%
	Health & Education	47,998	12.0%
	Community	73,022	18.3%
	Total	399,316	100.0%

Source: SGS Economics and Planning, 2019

Narrabeen

FIGURE 9: NARRABEEN LAND USE OVERVIEW

Source: SGS Economics and Planning, 2019

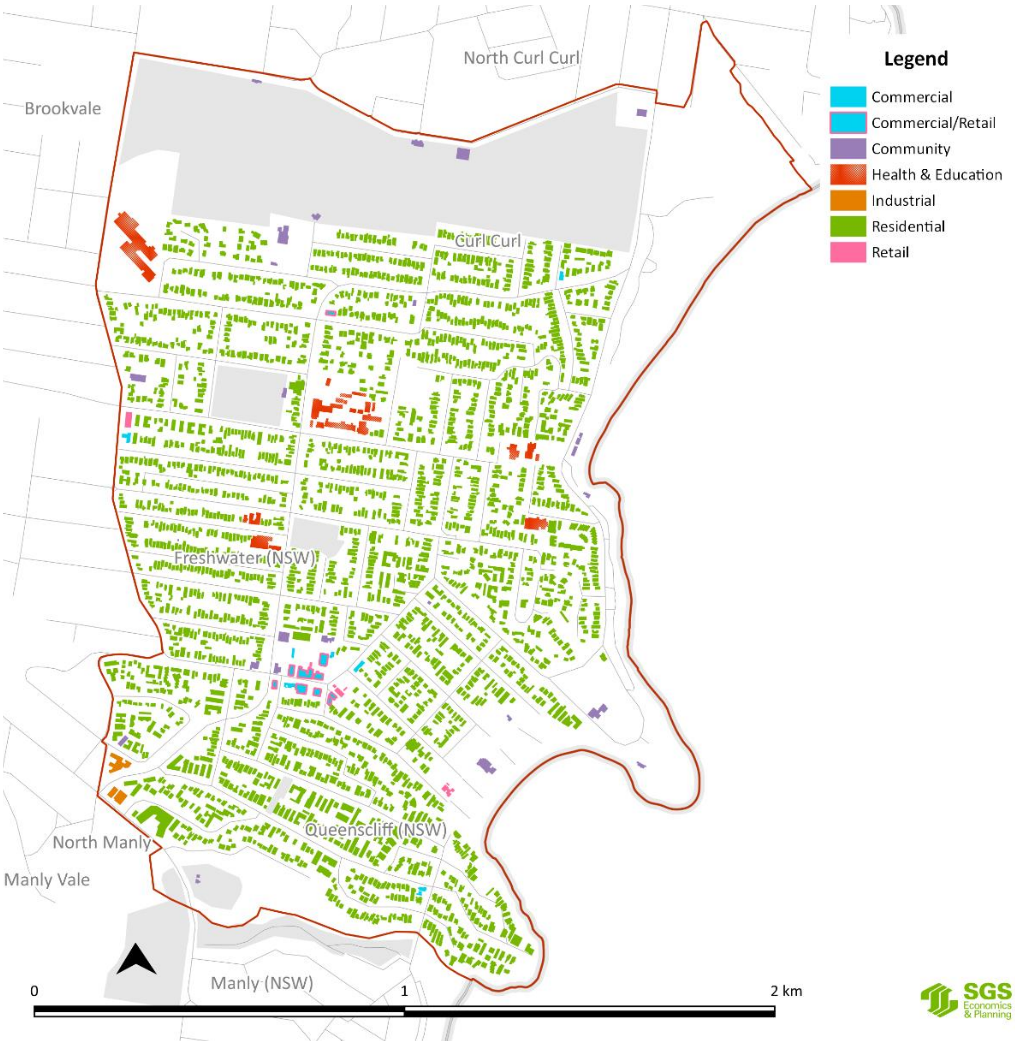
TABLE 9: NARRABEEN LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	1,977	0.3%
	Other Food	1,787	0.3%
	Clothing	209	0.0%
	Hospitality	4,481	0.7%
	Household goods	2,752	0.5%
	Other Retailing	1,024	0.2%
	Department Stores	200	0.0%
Non-Retail	Residential	490,530	81.1%
	Commercial	72,531	12.0%
	Industrial	-	0.0%
	Health & Education	14,933	2.5%
	Community	14,763	2.4%
	Total	605,187	100.0%

Source: SGS Economics and Planning, 2019

Freshwater

FIGURE 10: FRESHWATER LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

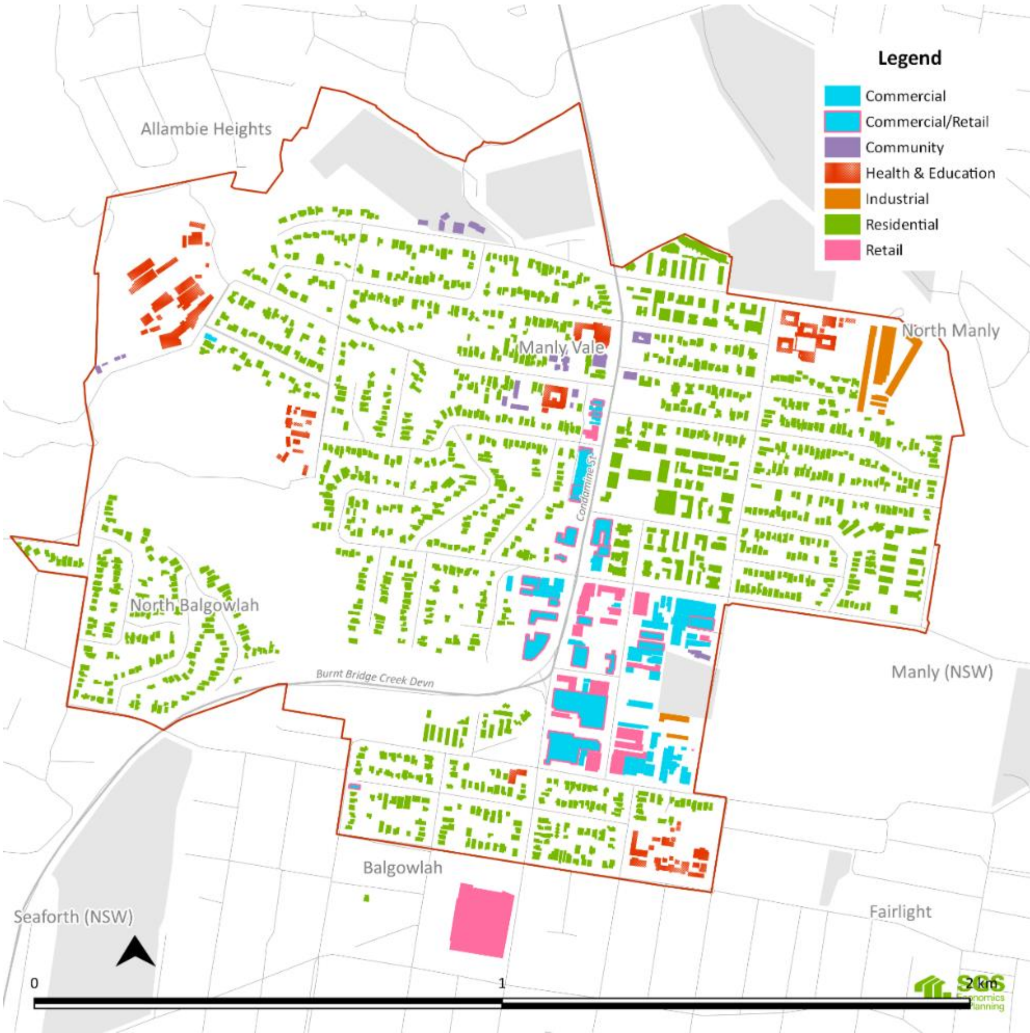
TABLE 10: FRESHWATER LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	-	0.0%
	Other Food	666	0.1%
	Clothing	726	0.1%
	Hospitality	669	0.1%
	Household goods	378	0.0%
	Other Retailing	683	0.1%
	Department Stores	-	0.0%
Non-Retail	Residential	795,536	88.1%
	Commercial	12,425	1.4%
	Industrial	2,314	0.3%
	Health & Education	55,979	6.2%
	Community	33,600	3.7%
	Total	902,975	100.0%

Source: SGS Economics and Planning, 2019

Manly Vale

FIGURE 11: MANLY VALE LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

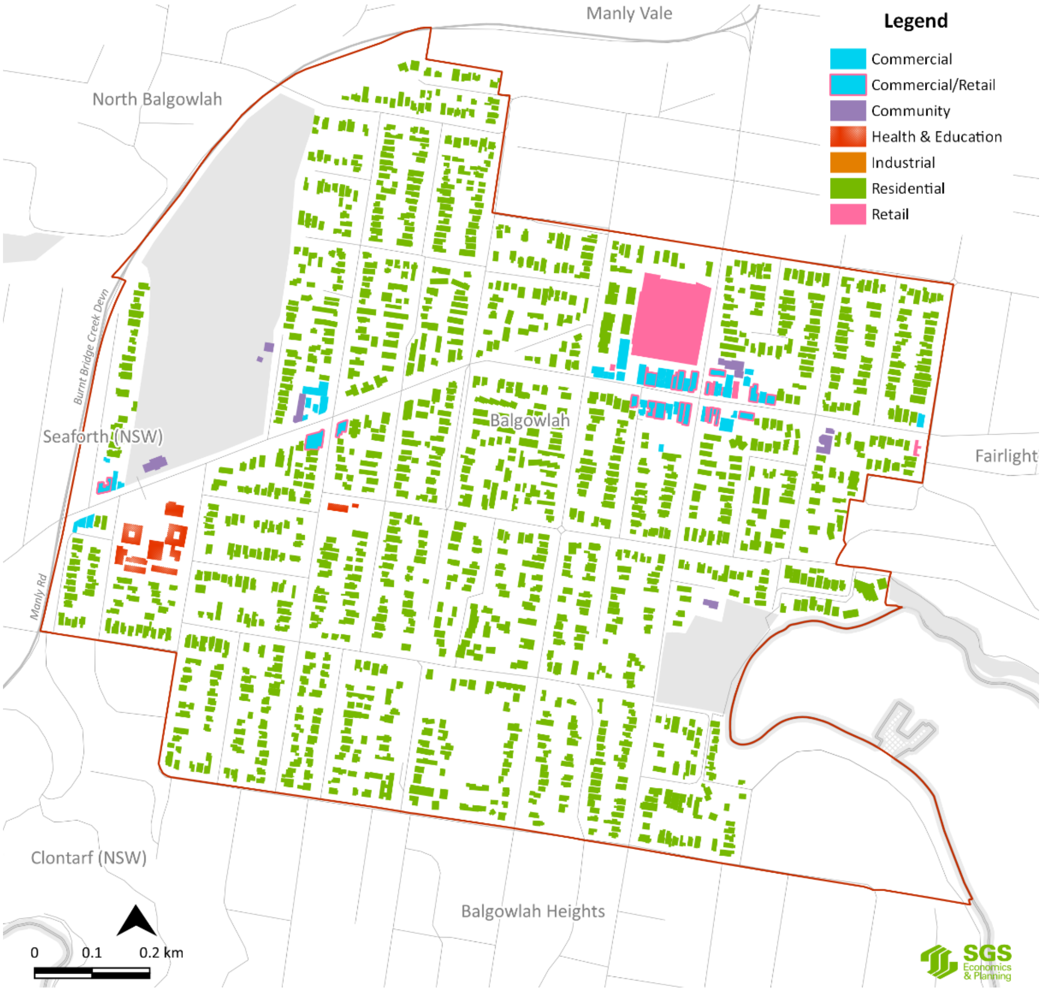
TABLE 11: MANLY VALE LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	948	0.2%
	Other Food	592	0.1%
	Clothing	348	0.1%
	Hospitality	5,415	0.9%
	Household goods	12,377	2.1%
	Other Retailing	1,403	0.2%
	Department Stores	3,138	0.5%
Non-Retail	Residential	403,876	67.4%
	Commercial	70,462	11.8%
	Industrial	7,884	1.3%
	Health & Education	81,130	13.5%
	Community	12,011	2.0%
	Total	**599,581**	**100.0%**

Source: SGS Economics and Planning, 2019

Balgowlah

FIGURE 12: BALGOWLAH LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

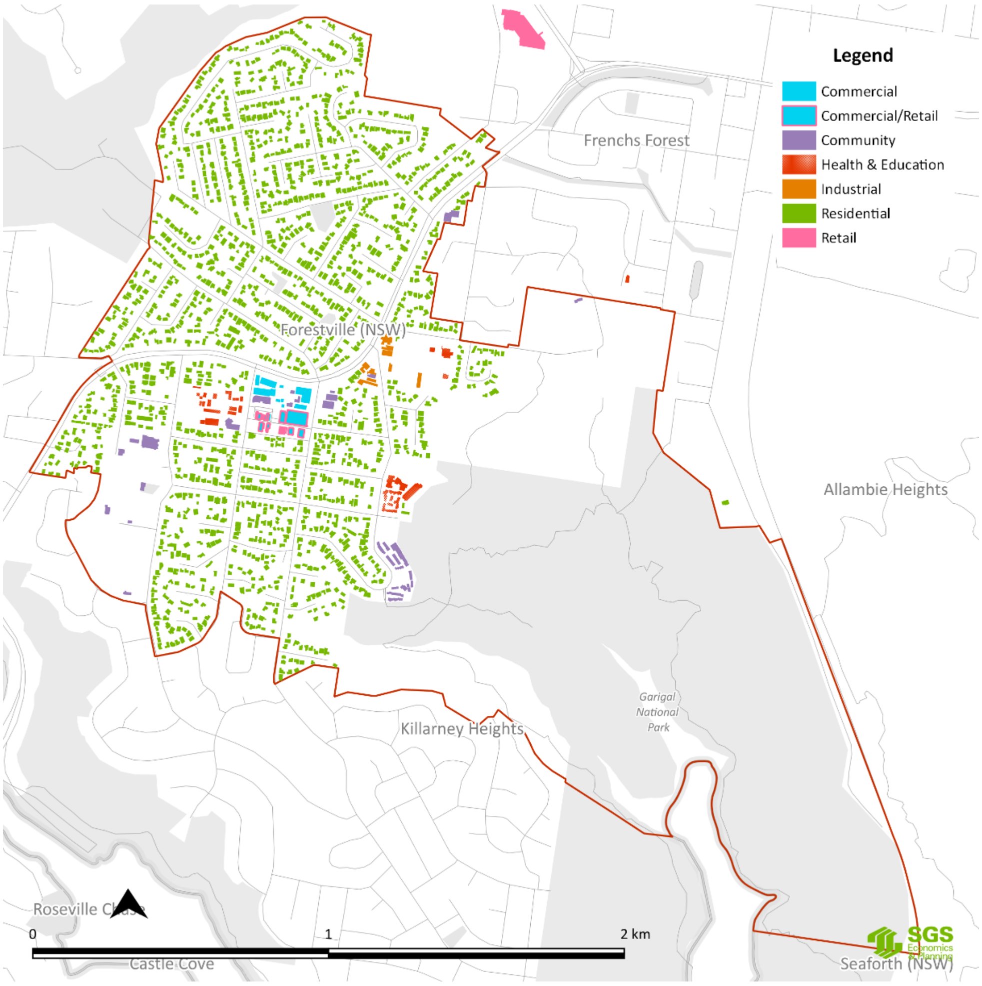
TABLE 12: BALGOWLAH LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	5,572	0.8%
	Other Food	1,350	0.2%
	Clothing	1,583	0.2%
	Hospitality	3,296	0.5%
	Household goods	2,595	0.4%
	Other Retailing	1,255	0.2%
	Department Stores	-	0.0%
Non-Retail	Residential	582,408	85.2%
	Commercial	49,391	7.2%
	Industrial	-	0.0%
	Health & Education	27,310	4.0%
	Community	8,759	1.3%
	Total	683,517	100.0%

Source: SGS Economics and Planning, 2019

Forestville

FIGURE 13: FORESTVILLE LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

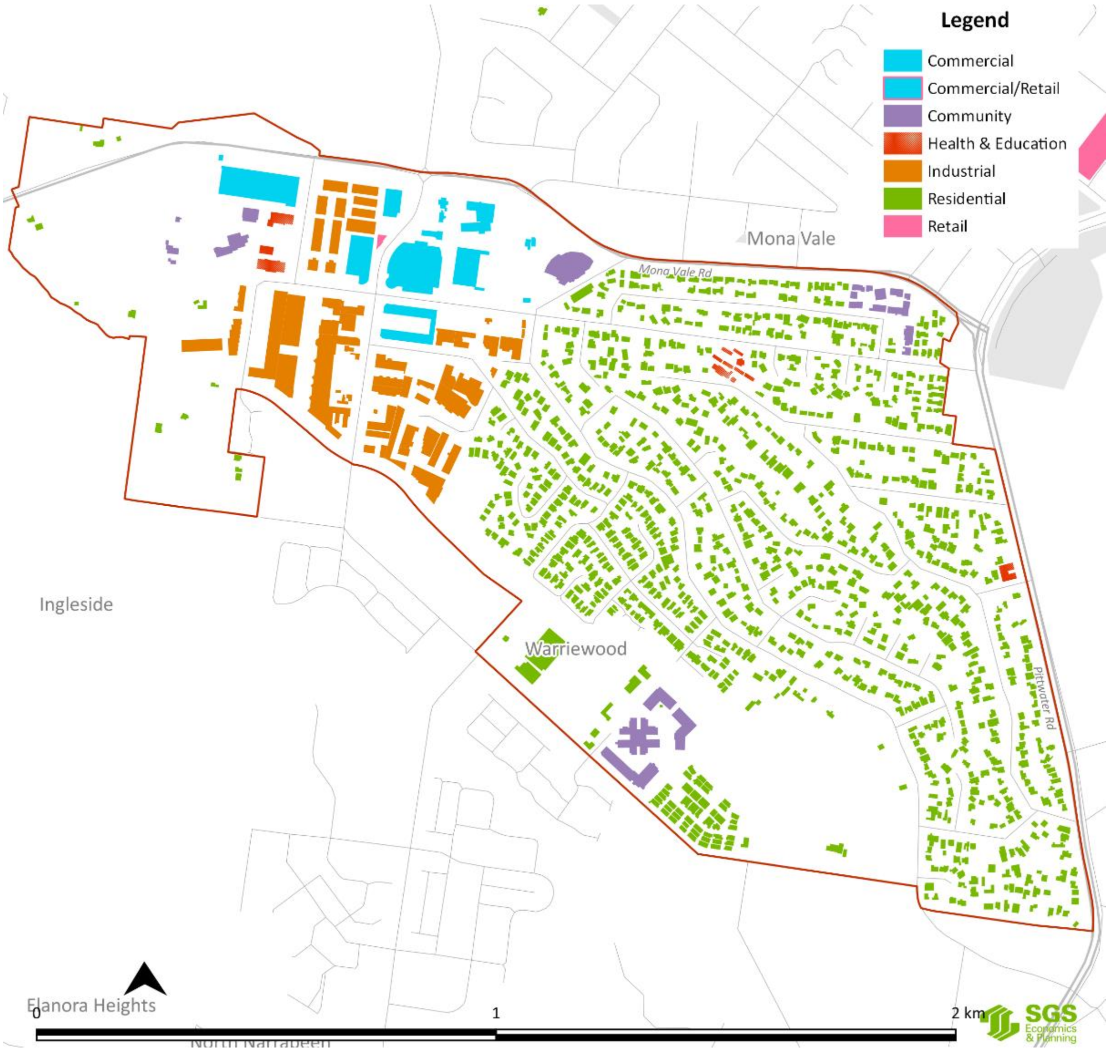
TABLE 13: FORESTVILLE LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	1,464	0.3%
	Other Food	239	0.0%
	Clothing	101	0.0%
	Hospitality	1,254	0.2%
	Household goods	387	0.1%
	Other Retailing	1,386	0.3%
	Department Stores	78	0.0%
Non-Retail	Residential	408,533	81.3%
	Commercial	30,871	6.1%
	Industrial	6,703	1.3%
	Health & Education	24,847	4.9%
	Community	26,824	5.3%
	Total	502,687	100.0%

Source: SGS Economics and Planning, 2019

Warriewood Business Park

FIGURE 14: WARRIEWOOD BUSINESS PARK LAND USE



Source: SGS Economics and Planning, 2019

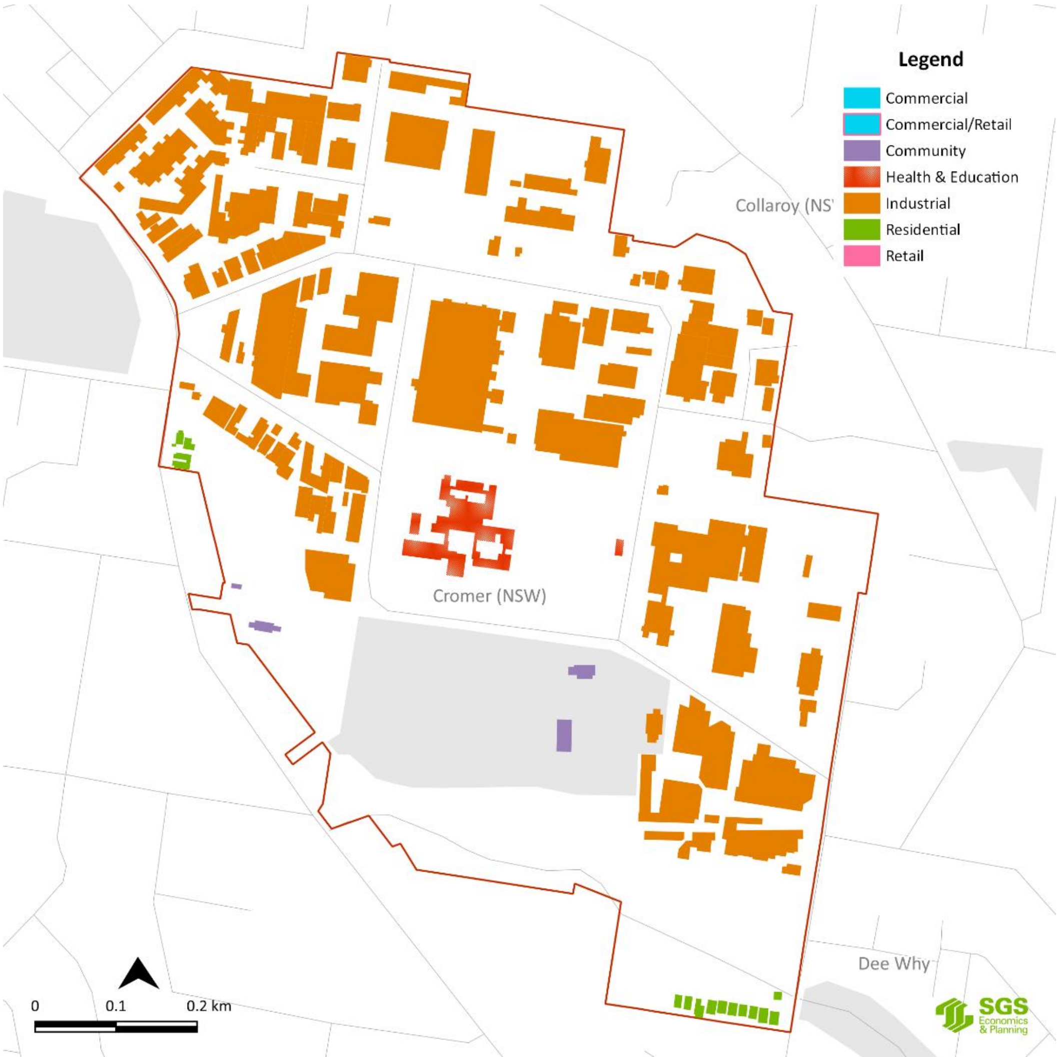
TABLE 14: WARRIEWOOD BUSINESS PARK LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	-	0.0%
	Other Food	-	0.0%
	Clothing	-	0.0%
	Hospitality	2,023	0.3%
	Household goods	1,012	0.2%
	Other Retailing	-	0.0%
	Department Stores	-	0.0%
Non-Retail	Residential	342,444	56.0%
	Commercial	123,030	20.1%
	Industrial	56,423	9.2%
	Health & Education	16,467	2.7%
	Community	70,516	11.5%
	Total	611,915	100.0%

Source: SGS Economics and Planning, 2019

Cromer Industrial Park

FIGURE 15: CROMER LAND USE



Source: SGS Economics and Planning, 2019

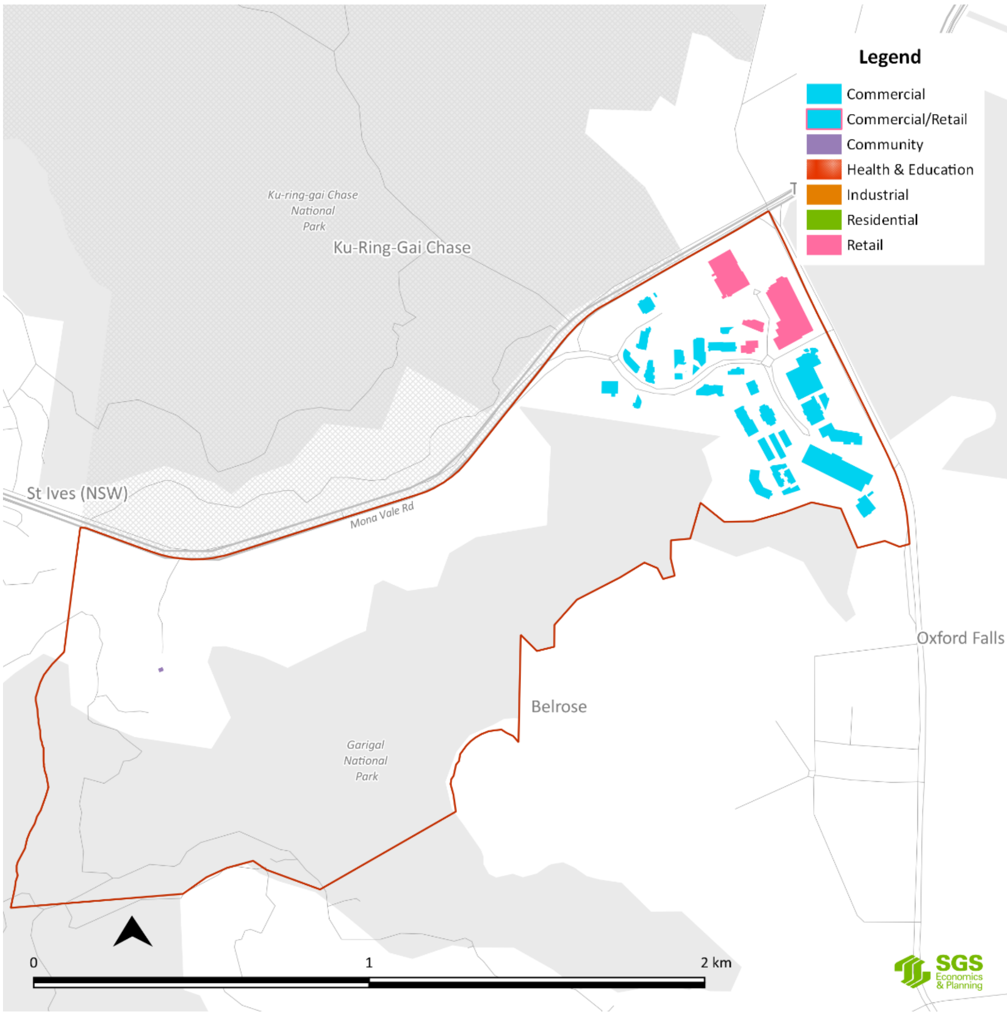
TABLE 15: CROMER INDUSTRIAL LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	-	0.0%
	Other Food	-	0.0%
	Clothing	-	0.0%
	Hospitality	-	0.0%
	Household goods	-	0.0%
	Other Retailing	-	0.0%
	Department Stores	-	0.0%
Non-Retail	Residential	4,756	2.9%
	Commercial	-	0.0%
	Industrial	130,389	79.7%
	Health & Education	22,731	13.9%
	Community	5,798	3.5%
	Total	**163,674**	**100.0%**

Source: SGS Economics and Planning, 2019

Austlink Business Park

FIGURE 16: AUSTLINK CORPORATE PARK LAND USE



Source: SGS Economics and Planning, 2019

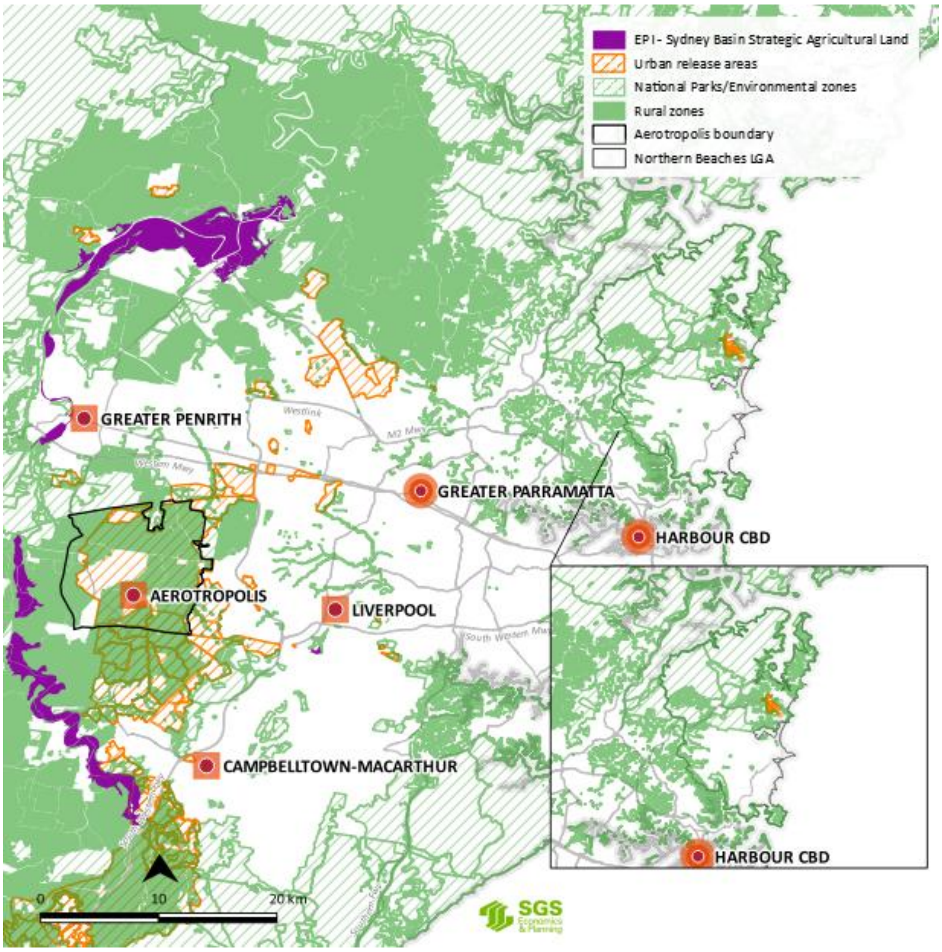
TABLE 16: AUSTLINK CORPORATE PARK LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	-	0.0%
	Other Food	-	0.0%
	Clothing	-	0.0%
	Hospitality	387	0.1%
	Household goods	47,580	10.5%
	Other Retailing	6,137	1.4%
	Department Stores	-	0.0%
Non-Retail	Residential	-	0.0%
	Commercial	397,092	87.8%
	Industrial	-	0.0%
	Health & Education	163	0.0%
	Community	877	0.2%
	Total	452,237	100.0%

Source: SGS Economics and Planning, 2019

Terry Hills rural precinct

FIGURE 17: SYDNEY'S RURAL ZONED LANDS



Source: SGS, 2019

TABLE 17: AGRICULTURAL INDUSTRY (POW)

Industry	Sub-industry	2011 Jobs	2016 Jobs	Change 2011-16
Agriculture	Agriculture, nfd	12	31	19
	Nursery and Floriculture Production, nfd	35	79	44
	Mushroom and Vegetable Growing	8	5	-3
	Fruit and Tree Nut Growing	3	10	7
	Sheep, Beef Cattle and Grain Farming	27	31	4
	Other Crop Growing	0	0	0
	Dairy Cattle Farming	4	22	18
	Poultry Farming	0	0	0
	Deer farming	0	0	0

Source: ABS, 2011 and 2016

Suitability analysis

Suitability analysis highlighted that Brookvale is suitable for a range of uses; there is a subtle stratification of commercial suitability where strategic commercial has lower levels of suitability in the LGA's northern centres due to the lower levels of public transport accessibility and the scale of the centres; and arterial road corridors are well utilised.

Market data analysis

Market data analysis indicate commercial floorspace vacancies exist but the floorspace on offer is not necessarily the right quality; the Northern Beaches has an economy of small businesses and future floorspace needs to ensure that demands of these businesses are met; Brookvale's commercial market is transitioning; Manly is an international and domestic visitor attractor but it is also attractive to commercial uses; and industrial land values are increasing.

Supply demand analysis

There is an estimated growth in jobs between 2016 and 2036 of 21,800 across the LGA. This equates to demand for a maximum of 372,000sqm of commercial floorspace, distributed across the LGA's 16 key employment centres and precincts. A further 51,600sqm of industrial floorspace is estimated by 2036 across eight major industrial precincts. This future demand for commercial and industrial floorspace results in a potential undersupply of an upper bound of 100,000sqm by 2036 across the LGA under a practical capacity scenario.

From a retail perspective, there is an estimated demand for an additional 30,500sqm of retail floorspace by 2036.

LEP review

In relation to the harmonisation of the Warringah, Manly and Pittwater LEPs, the following recommendation have been made:

TABLE 18: ZONE RECOMMENDATION ACTION

Zone	Action
B1 Neighbourhood Centre	Adopt closed zone approach to prohibit 'Any other development not specified in item 2 or 4' Add additional objective to standard instrument objective that identifies the need for neighbourhood centres to be people-centric – with a focus on safety (particularly the interface between cars and public domain) and accessibility. This could be a consolidation of key points in the three additional objectives noted above. Amalgamate all existing permissible uses
B2 Local Centre	Permit home-base childcare without consent Permit without consent Home business Permit water recycling facilities and water supply systems Amalgamate all existing permissible uses Adopt closed zone approach to prohibit 'Any other development not specified in item 2 or 4' Retain B2 zone for Manly Include select industrial uses that are compatible with other centre uses and can add to the vitality of a centre. These may include Light industries such as 'Artisan food and drink' and 'Vehicle repair stations' Add additional objective to standard instrument objective that identifies:

	- the need for local centres to be people-centric – with a focus on safety (particularly the interface between cars and public domain) and accessibility. - to encourage, where appropriate, weekend and evening economy functions - to create urban form that relates favourably in scale and in architectural and public domain treatment to neighbouring land uses and to the natural environment
B3 Commercial Centre	Adopt the Manly LEP commercial core definition Consider adding an additional objective in the Warringah LEP to reflect the proposed broader vision for Brookvale *"To recognise and support the role of Brookvale as a future employment centre for the Northern Beaches"* Consider changing to a closed zone, with Prohibited uses reflecting the Standard Instrument and including *"Any development not specified in item 2 or 3"*
B4 Mixed Use	Include the following as additional LGA-wide objectives: ▪ *"To promote building design that creates active building fronts, contributes to the life of streets and public spaces and creates environments that are appropriate to human scale as well as being comfortable, interesting and safe."* ▪ *"To promote a land use pattern that is characterised by shops, restaurants and business premises on the ground floor and housing and offices on the upper floors of buildings."* ▪ *"To provide healthy, attractive, vibrant and safe mixed-use areas".* *"To provide an active day and evening economy."* Include centre-specific objectives: ▪ *To strengthen the role of Mona Vale as the major centre for retail and services in the north of the LGA".* *Support a range of retail, civic and commercial uses in Dee Why* Include select industrial uses that are compatible with other centre uses and can add to the vitality of a centre. These may include Light industries such as 'Artisan food and drink' and 'Vehicle repair stations' Permit home occupations but not home businesses Prohibit home-base childcare Beyond what is proposed above, consolidate the permitted with consent across the Pittwater and Warringah LEPs. Consider changing to a closed zone, with Prohibited uses reflecting the Standard Instrument and including *"Any development not specified in item 2 or 3"* Confirm need for diverse housing typologies via Housing study to ascertain need for Residential Flat Buildings in B4 zone
B5 Business Development	Remove application of B5 zoning application in Brookvale through rezoning to B6 Revert the B5 objectives and permissible and prohibited uses to Standard instrument definition
B6 Enterprise Corridor	Continue to support the retention of all existing IN2 uses under the B6 zone so all existing industrial uses are permissible under the proposed zoning. Permit 'Specialised retail shops', 'Neighbourhood shops' and 'Take away food and drink premises' while restricting the overarching 'Shops' land use in B6 zones This would require an additional clause in the LEP that, like it does with existing IN2 uses in Balgowlah, continues to support the retention of existing shops already in the B6 zone. Rezone the B5 land use in Brookvale to B6 Beyond what is proposed above, consolidate the permitted with consent across the Pittwater and Manly LEPs.
B7 Business Park	Consider including additional objectives to the effect of:

	▪ *"To create business park employment environments of high visual quality that relate favourably in architectural and landscape treatment to neighbouring land uses and to the natural environment."* *"Support the development of commercial and light industrial precincts that support a diversity of business sizes"* Adopt the Pittwater LEP Permissible uses Permit with consent 'Depots' Change to a closed zone, with Prohibited uses reflecting the Standard Instrument and including *"Any development not specified in item 2 or 3"*
IN1 General Industrial	Add additional objectives to LEP: ▪ *To accommodate uses that, because of demonstrated special building or site requirements or operational characteristics, cannot be or are inappropriate to be located in other zones* *To maintain the industrial character of the land* Adopt Warringah LEP IN1 General Industrial Core objectives and permitted/prohibited uses in consolidated LEP Permit with Consent "Resource Recovery facility " Add 'Recreation facility (indoor) to permissible with consent, to reflect what is already in these precincts BUT focus permission on facilities that absolutely require industrial floorspace built forms (rock climbing, trampolining) rather than small gyms. Consider changing to a closed zone, with Prohibited uses reflecting the Standard Instrument and including *"Any development not specified in item 2 or 3"*
IN2 Light Industrial	Add additional objectives to LEP: ▪ *To accommodate uses that, because of demonstrated special building or site requirements or operational characteristics, cannot be or are inappropriate to be located in other zones* *To maintain the industrial character of the land* Add 'Recreation facility (indoor) to permissible with consent, to reflect what is already in these precincts BUT focus permission on facilities that absolutely require industrial floorspace built forms (rock climbing, trampolining) rather than small gyms. Amalgamate the permitted with consent uses across the Warringah and Pittwater LEPs
IN4 Working Waterfront	Retain additional objective in the Pittwater LEP Adopt Pittwater LEP permissible and prohibited uses
RU4 Primary Production Small Lots	Retain the additional objectives in the Warringah LEP as part of the harmonised LEP Continue to retain the RU4 zone to preserve the productive and rural/landscaping retail functions of the land uses along Mona Vale Road and into Terrey Hills. Adopt Warringah LEP's permissible and prohibited uses for harmonised LEP
SP3 Tourist	Combine the two sets of permissible uses.

Source: SGS, 2019

Insights

The qualitative and quantitative analysis undertaken in the employment lands study has identified a number of challenges, opportunities and insights for the Northern Beaches LGA. These include:

Challenges

- Frenchs Forest will have to overcome significant severance issues with the hospital and business park located either side of Warringah Road. Despite having a significant B7 Business Park zone, it tends to have more of an industrial character.
- Brookvale is an ill-defined centre with a unique mix of land uses.
- With low amenity and dominated by Pittwater Road, Dee Why lacks the vitality of a strategic centre.
- There is tension within Manly centre with competing land uses.
- Mona Vale functions like a local centre and needs to be elevated to fulfil its role as a strategic centre.
- The integrity of the industrial precincts needs to be protected.
- Given the high rates of self-containment in the LGA, there is a need to better understand what it means to work locally and what sort of spaces could support workers.
- Employment and economic centres need to meet the needs of the ageing population and help maintain generational diversity of the population.
- There is a lack of connectivity and accessibility both within the LGA and externally to Greater Sydney.

Opportunities

- Improving the connectivity within Frenchs Forest as the centre develops
- Improving the functionality of Brookvale to make this centre the focus for retail and industrial employment.
- Complement the role of Brookvale by allowing Dee Why centre to be the focal point for civic functions and population servicing industries for the surrounding residential populations.
- Develop a clear vision for Manly centre to help reduce future land use conflict.
- Recognise other centres in the LGA will be strong attractors of commercial (office), higher order retail and industrial. The focus for Mona Vale centre will be a complementary role, serving the north of the LGA.
- Develop the population serving role of smaller, local centres.
- Improve internal and external connectivity.
- As an opportunity to grow local employment, ensure economic activity centres support the establishment of small and medium businesses.
- Support the development of a diverse night-time economy.
- Strengthen job containment and self-sufficiency.

Insights

- The labour market, work patterns and business needs are changing where more people are travelling to major employment centres like Sydney CBD, Macquarie Park and North Sydney; and people are starting businesses or are working remotely from home.
- There is a misalignment between existing floorspace stock and emerging demand where there is a shortage of appropriate commercial floorspace. There is a need to incentivise the delivery of new, flexible commercial floorspace that promotes collaboration and provides services geared towards small businesses.
- The Northern Beaches will become better connected with the Northern Beaches Link; B-Line; and proposed routes in/out of Frenchs Forest and Brookvale.
- Brookvale provides a range of services for the LGA but lacks a clear identity.
- Frenchs Forest is a precinct in transition.
- Manly is the visitor gateway to the Northern Beaches.
- Smaller centres support commercial and retail uses.
- Industrial precincts play a vital role.

Recommendations

Place or centre type-specific recommendations have been made in addition to LEP zoning recommendations.

TABLE 19: BROOKVALE RECOMMENDATIONS

	Action	Responsibility	Timeframe
Action 1	Recommence Brookvale structure plan process, with a focus on commercial and civic functions, testing location preference and building massing options.	NBC	Short
Action 2	Rezone preferred town centre location to B3, retaining current LEP objectives	NBC	Short-medium
Action 3	Change building height controls within rezoned B3 area based on urban design testing		short
Action 4	Require Westfield to focus future growth towards future town centre site to integrate into town centre, with an externally facing approach that reduces Warringah Mall's enclosed identity		Medium
Action 5	Work with TfNSW to progress East-West B-Line		Short
Action 6	Engage with TfNSW to identify potential for bus depot as a site for the future town centre.		Short
Action 7	Identify potential future sites for Bus Depot site within the LGA		Short
Action 8	Relocate community infrastructure under Council's control and accommodate identified future LGA-significant community infrastructure to future town centre		Short-medium
Action 9	Rezone remaining B5 to B6 (discussed in more detail in the Business Zone recommendations)	NB	Short-medium

TABLE 20: FRENCHS FOREST RECOMMENDATION

	Action	Responsibility	Timeframe
Action 10	Consider amendments to the LEP to permit Depots in B7 zone or rezone a portion of the site to SP2	NBC	
Action 12	Work with TfNSW to progress the B Line connection between Mona Vale and Frenchs Forest along Wakehurst Parkway.	NBC/TfNSW	Short-medium
Action 13	Collaborate with TfNSW and identify potential future sites for bus depot site within the LGA	NBC/TfNSW	Short-medium

TABLE 21: MANLY RECOMMENDATIONS

	Action	Responsibility	Timeframe
Action 14	Continue to market the retail demand in the town centre with a view on emerging trends in vacancies	NBC	S-M-L
Action 15	Allow for approximately 1,300sqm of high street-style retail floorspace by 2036, assuming that monitoring in Action 14 does not identify a change in retail performance.	NBC	L
Action 16	Do not permit additional supermarket floorspace in town centre	NBC	S-M-L
Action 17	Rationalise building height controls at Royal Far West site, with accompanying building massing study to ensure appropriateness of scale	NBC	M-L

TABLE 22: MONA VALE RECOMMENDATIONS

	Action	Responsibility	Timeframe
Action 18	Consider amendments to the objectives of the B4 zone to retain the first floor of developments for commercial uses and encourage additional commercial floorspace in future town centre developments.	NBC	Short
Action 19	Work with TfNSW to progress the B Line connection between Mona Vale and Frenchs Forest along Wakehurst Parkway.	NBC/TfNSW	Short

TABLE 23: DEE WHY RECOMMENDATIONS

	Action	Responsibility	Timeframe
Action 20	Consider ceiling heights of new development on Pittwater road are 4m or greater on the ground floor and the first floor to promote future flexibility.	NBC	Short
Action 21	Develop a night-time social program that is inclusive for all members of the community.	NBC	Short
Action 22	Implement public domain improvements that include through-site linkages and safety by design between the beach strip and town centre core to support day and night activities.	NBC	
Action 23	Require no net loss of commercial floorspace in Dee Why and require new developments to provide first floor commercial floorspace as part of mixed-use developments.	NBC	Short

TABLE 24: LOCAL CENTRE RECOMMENDATIONS

	Action	Responsibility	Timeframe
Action 24	Anticipate retail floorspace growth at Warriewood of up to 5,400sqm additional floorspace by 2036.	NBC	Long
Action 25	Continue to permit shop top residential in B1 and B2, considering the opportunity for it be delivered above community facilities rather than retail.	NBC	S-M-L
Action 26	Council Economic Development and property teams to collaborate with local retail landlords to identify opportunities for temporary or long-term term co-working facilities in vacant retail frontages.	NBC	S-M
Action 27	Distribute future local commercial floorspace demand by sub-LGA as demand dictates.	NBC	M-L
Action 28	Explore business network opportunities to link local businesses together and to available floorspace through economic development strategy	NBC	S

TABLE 25: INDUSTRIAL PRECINCT RECOMMENDATIONS

	Action	Responsibility	Timeframe
Action 29	Continue to uphold Planning Priority N11 of the North District plan to retain and manage industrial land. This precludes any rezoning of IN-zoned land in the LGA.	NBC	S-M-L
Action 30	Restrict Recreation facility (indoor) from IN1 land in addition to existing controls in both Warringah and Pittwater LEPs.	NBC	S
Action 31	Increase building height controls to approximately 16 metres across IN1 and IN2 zoned land, following precinct-specific urban design and impact testing.	NBC	S-M
Action 32	Engage with NSW Government regarding the potential for Mona Vale bus depot to redevelop to accommodate current Brookvale Depot operations.	BC	S

TABLE 26: BUSINESS (B5, B6 AND B7) PRECINCT RECOMMENDATIONS

	Action	Responsibility	Timeframe
Action 33	Rezone Warringah's B5 zone to B6	NBC	S-M
Action 34	Prohibit Private Hospitals in B6-zoned land	NBC	S
Action 35	Building height control change along Pittwater Road in line with Brookvale centre proposal of approximately 16 metres, subject to urban design massing studies	NBC	S-M

TABLE 27: RURAL LANDS PRECINCT RECOMMENDATIONS

	Action	Responsibility	Timeframe
Action 36	Retain and continue to support RU4 zoning along Mona Vale Road	NBC	S-M-L

1. PROJECT CONTEXT

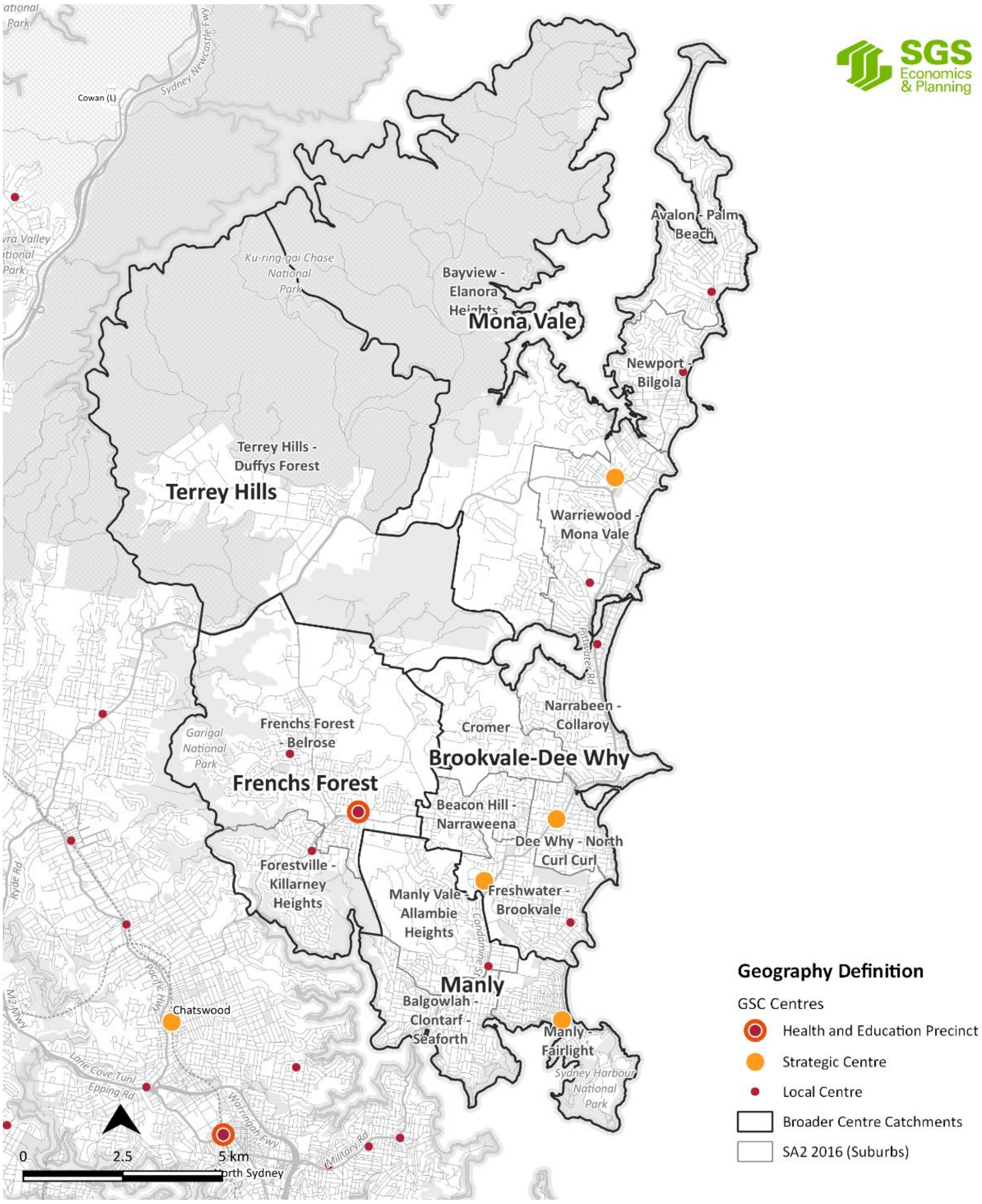
1.1 Project Objectives

Northern Beaches Council has commissioned a number of strategic planning studies, including the Northern Beaches Employment Study, to inform the development of the Local Strategic Planning Statement (LSPS), updates to the Local Environmental Plan (LEP) and the Economic Development Plan.

1.2 Northern Beaches Context

Northern Beaches Council is a recent amalgamation of Warringah, Manly and Pittwater Councils. Located in the north of Greater Sydney, encompassing Ku-ring-gai National Park in the west and extending through to the east coast, Northern Beaches Council contains a number of the Greater Sydney Commission (GSC) nominated Strategic Centres, namely French Forest Health and Education Precinct, Brookvale-Dee Why, Manly, Mona Vale, as well as identified local centres including Balgowlah, Manly Vale, Freshwater, Narrabeen, Warriewood, Newport, Avalon, Forestville, Glenrose. These centres contain a mixture of land uses that span population serving, health and education, commercial and industrial industries.

FIGURE 18: NORTHERN BEACHES LGA CONTEXT



Source: SGS Economics & Planning

2. STRATEGIC POLICY AND PRIORITY REVIEW

This section provides a high-level summary of state and local planning policy context.

2.1 State policies

Greater Sydney Region Plan (2018)

The Greater Sydney Region Plan (GSRP) is a metropolitan strategy that aims to transform Greater Sydney into a metropolis of three cities: The Western Parkland City, the Central River City and the Eastern Harbour City over the next 40-year period.

Northern Beaches Council is in the Northern District. Directions for productivity include developing a well-connected city that supports shorter, localised connections to jobs, schools and services through integrated land use, transport and infrastructure planning; and enhancing productivity through strategic planning that enables jobs and skills growth and investment for LGAs, such the Northern Beaches.

Implications for employment

- ***Objective 21: Internationally competitive health, education, research and innovation precincts.*** Strategies to develop these precincts, such as at Frenches Forest, include conditions for the co-location of health and education facilities; high levels of accessibility; attraction of associated businesses and housing opportunities for students and workers within 30 minutes of the precinct.

- ***Objective 22: Investment and business activity in centres***. This objective identifies the role of centre hierarchies in effective strategic planning. Centres play a role in delivering jobs close to home, facilitate an effective public transport system and provide a range of social and economic infrastructure to support local and metropolitan communities. The application of a clear and consistent centre hierarchy in Northern Beaches will be key.

- ***Objective 23: Industrial and urban services land is planned, retained and managed*** which recognises the value of industrial lands within a city where it is not necessarily the number of jobs provided, but the operational role and function industrial lands play that is of importance. Industrial lands in the Northern Beaches is designated as 'retain and manage'.

North District Plan (2018)

The North District Plan (NDP) is a 20-year strategy, linked to the GSRP, that aims to manage growth in the District. The NDP informs local level strategic planning, assessment of planning proposals and gives effect to the GSRP.

Implications for employment

- *Planning Priority N1 – Planning for a city supported by infrastructure:* Planning decisions need to support new infrastructure that enhances local employment opportunities and access to services.

- *Planning Priority N9 - Growing and investing in health and education precincts:* Currently it is estimated 9,300 people work within the Frenchs Forest precinct. The NDP identified potential job targets of approximately 12,000 jobs by 2036 as a baseline and 13,000 as a higher target. One of the key actions is the delivery and implementation of a Place Strategy and Infrastructure Plan for this precinct.

- *Planning Priority N10 – Growing investment, business opportunities and jobs in strategic centres:*

    - Frenchs Forest actions include leveraging the investment in the Northern Beaches Hospital to provide a vibrant and well-connected strategic centre; delivering an urban core with a mix of commercial and residential uses, open space and community facilities; attracting a new, innovative health and medical related commercial premises to support the hospital; and reinforcing the centre as an employment hub for the Northern Beaches, building on the existing business park east of the Wakehurst Parkway.

    - Brookvale-Dee Why actions include supporting jobs growth to between 23,000 - 26,000 by 2036; maintaining a mix of uses; encouraging and supporting improvements to Warringah Mall to allow for better surrounding integration; encouraging opportunities along Pittwater Road and encourage revitalisation; promoting active and public transport to Warringah Mall, the Brookvale industrial area and Dee Why; encouraging new, innovative and creative industries in the Brookvale industrial area; encouraging new lifestyle and entertainment uses to activate local streets.

While these NDP treats Brookvale and Dee-Why as one centre, the actual form and function of these places is distinct and are therefore being treated in this paper as separate, yet complementary centres.

- Mona Vale actions include supporting jobs growth to between 5,000 - 6,000 jobs by 2036; protecting and enhancing the commercial and retail function of the centre; ensuring sufficient retail and commercial floorspace is provided to meet future demand; leveraging Mona Vale's role as a north-south and east-west bus interchange to facilitate a greater diversity of employment and mixed-uses in the centre; and retaining and managing the industrial precinct.

- Manly actions include supporting jobs growth to between 6,000 - 6,500 by 2036; developing the centre as a cultural, tourist, retail and entertainment precinct; encouraging diversified commercial activity; encouraging eco-tourism around North Head and the Cabbage Tree Aquatic Reserve.

- *Planning Priority N11 - Retaining and managing industrial and urban services land:* the North District has the smallest proportion of industrial and urban services lands in Greater Sydney. The NDP identifies urban services land and industrial lands as critical.

- *Planning Priority N13 – Supporting growth of targeted industry sectors:* the NDP recognises the importance the tourism and rural industries. The North District includes part of the Metropolitan Rural Area, where agricultural processing and export is an important component. This planning priority supports growth of internationally competitive industry sectors; response to changing technologies; planning for tourism and visitation activities; and protection and support of rural industries.

A Metropolis that Works, GSC Thought Leadership Series

The paper responds to Objective 23 of the GSRP that industrial and urban services land be planned, retained and managed and acknowledges the changing nature of industrial and urban services and their spatial requirements and strategic value.

It is recognised only eight per cent of land across Greater Sydney is zoned for non-residential uses such as industrial and urban services yet, 19 per cent of all jobs across Greater Sydney are classed as industrial.

Implications for employment

The paper suggests strategic planners need to plan for a multi-layered city that provides creative interfaces; facilitates 'ordinary' functions; and has space that services future population needs. If change does occur, there is a need to retain ownership of the terms on which those changes are made, and determinations should require no net loss of land or businesses and seek additional allocations relative to population growth.

Future Transport 2056

Future Transport 2056 is the NSW Government's long-term transport strategy.

Implications for employment

Future transport initiatives that will support greater connections to employment opportunities include:

- Initiatives committed or for investigation (0-10 years): Northern Beaches B-line, Northern Beaches Hospital Road Upgrade, improved bus services between Northern Beaches and Chatswood, Beaches link, and east-west public transport connection from Mona Vale to Macquarie Park.
- Initiatives for investigation (20+ years): further investment in cycling connections within 5km of strategic centres.

2.2 Local studies

Economic Development – Strategic Foundations Debrief (2019)

The study aimed to understand the appetite for Northern Beaches residents to work in the Northern Beaches; understand the appetite for businesses to base themselves in the Northern Beaches; and define the barriers and generating ideas to overcome them.

Implications for employment

Three recommendations from the study included:

1. Encourage residents to work from home once a month by anchoring people to the benefits of working from home beyond current practical reasons.
2. Target current businesses and create a sense of community and network to enable business growth within Northern Beaches.
3. Raise awareness of the businesses and workforce based in Northern Beaches to change perceptions and attitudes. Targeting CFO's and CEO's with responsibility for planning office locations is key to changing behaviour.

Shape 2028 Northern Beaches Community Strategic Plan – Northern Beaches Council (2018)

The Northern Beaches Council Community Strategic Plan is a 10-year strategic plan which sets the whole of council strategic direction. The plan includes vision, goals and objectives that provide direction for the growth and development of the council.

Implications for employment

Strategies that impact employment lands include:

- Facilitate innovative environments and hubs where start-up businesses, entrepreneurs and innovators are supported and connected
- Facilitate local education
- Supports telecommuting
- Activate urban centres and strategic centres to increase economic activity
- Provide a platform for diversified job growth and locate job growth and industry clusters in villages, strategic and district centres
- Improve public transport options and improve parking options in centres, villages and place.
- Ensure the community is stimulated through a range of creative activities including safe nightlife opportunities.

Placescore Community Insights Report – Northern Beaches Town Centres and Villages Centres (2018)

In 2018, 3261 people across the LGA engaged in a 'Placescore' survey which asked which place attributes were most important to in their ideal town centre.

Implications for employment

Key findings related to economic centres included:

- For local residents, workers and visitors – the most important aspects of town centres were elements of the natural environment (72%); cleanliness of public space (65%); outdoor restaurant, café and/or bar seating (58%); vegetation and natural elements (56%); and overall visual character of the area (54%).

- Main streets were performing at a score of 66 out of 100. The strongest place attributes were welcoming to all people, sense of safety and interaction with locals. The weakest place attributes included public art, light features; unusual or unique buildings/design; and amenities and facilities.

- Priorities across the LGA, in order of priority, included: things to do in the evening, vegetation and natural elements, maintenance of public spaces and street furniture; elements of the natural environment, general condition of vegetation, street trees and other planting, and cleanliness of public spaces.

Frenchs Forest Planned Precinct (2018)

The report by MacroPlan 2018 provided advice on the likely retail and non-retail change that will occur in the Frenchs Forest Planned Precinct (FFPP) as a result of the Northern Beaches Hospital (NBH).

Implications for employment

Findings suggested:

- Retail uses in the area are expected to increase. The main trade area population is estimated to grow from 51,730 people (2017) to 70,430 by 2036. The key retail catchment is expected to experience a total of 13,400 people by 2036.

- An additional 5,300 - 5,400 dwellings in the Northern Beaches Structure Plan catchment is expected to drive growth in the primary sector.
- The worker population is expected to grow from 10,000 people (2018) to 14,000 people by 2036.
- The FFPP should provide additional retail floor space to serve the primary trade area needs.
- The NBH level 5 hospital will be supported by its related and necessary services within the hospital building.
- The level 5 hospital will encourage the growth of non-retail health floor space in the area.
- The 60-hectare Frenchs Forest Business Park performs a local employment role. Findings suggest that the Business Park is currently underutilised, therefore the development of the hospital will help to stimulate growth in this underused area.
- Approximately 2,300 new jobs as indicated in the HPSP.

Draft Brookvale Structure Plan (2018)

The Draft Brookvale Structure Plan 2018 informs the future growth of Brookvale.

Implications for Employment & Economic Centres

The Draft Plan identified the need to facilitate further development of the mixed-use town centre along Pittwater Road as a support area to surrounding employment lands in Brookvale. The focus of Warringah Mall as a retail core coupled with employment growth and residential growth was identified as the most viable and productive way to ensure sustainable growth and economic development in the centre.

Residential development is only envisaged within the traditional town centre either side of Pittwater Road between Powells and Windbourne Roads to revitalise the town centre as a support area to the surrounding employment lands. The aim of the Draft Plan is to achieve appropriate balance between growth in jobs and housing, in line with identified traffic constraints.

Specifically, Scenario Three was identified as the most feasible balance of residential and jobs growth (40/60 split) to promote revitalisation of the town centre and its continued function supporting the surrounding industrial and urban services land. Its viability is centred on the fact that residential and commercial development will be co-located. The vision and aspirations of the plan broadly align with the vision of the GSRP and the NDP. While many of the actions relate to Council operations, the Plan works towards securing a mixed-use area as well as a vibrant night-time economy.

The Draft Plan was developed prior to the directives of the Greater Sydney Commission to 'retain and manage' industrial and urban services lands (Objective 23 Greater Sydney Region Plan). This Draft Plan has been placed on hold awaiting direction from this employment study.

2.3 Insights

Northern Beaches Health and Education Precinct

Significant investment into the Northern Beaches Hospital Precinct will secure its role as a strategic centre. Policy directions recognise the need to plan for and grow this precinct strategically to ensure that the LGA can expand these industries through innovations. The hospital and investments are expected to stimulate the economy and provide a greater number of jobs in the area.

Employment growth

Growing local job opportunities and ensuring efficient access to these jobs is also a key focal point. The strategic centres are the main locations for job growth in the LGA and include the Northern Beaches Health and Education Precinct, Brookvale – Dee Why, Manly and Mona Vale.

Supporting growth that is well designed and sensitive to the natural and built environment

Smaller localities are identified as having strong local character which should be retained. Any increases in density and expansion need to ensure high-quality built environment results, therefore improving amenity and increasing safety and vibrancy. For local residents, workers and visitors, elements of the natural environment and maintenance of public spaces are highly valued.

Supporting local interaction, accessibility via all modes and access to fresh food in smaller, local centres

The community identified that interaction with local and other people in the area; access to groceries and fresh food businesses; walking paths that connect to other places; as well as car accessibility and parking and public/active transport access are all important and valued to the community.

Strategic focus on job accessibility

Land use planning policy broadly supports urban redevelopment of increased densities to create a 30-minute city.

Investigate tourism growth

The Northern Beaches LGA contains a variety of beautiful natural assets. Policy recognises the need to investigate the tourism industry as it presents as a key opportunity for economic growth.

Policy focus on the protection of industrial lands

Regional policy identifies the importance of industrial lands, because of this, industrial precincts around the LGA will be retained and managed. A key focus is ensuring that the uses of these areas are diversified to encourage a greater capacity of employment and facilitate a range of employment opportunities.

Investigate the tension between car parking and public transport in areas that are centred around public transport nodes

Various measures have been suggested for carparking in Manly Town Centre, as well as separate discussion to increase density around public transport nodes. Further policy should work towards facilitating and encouraging public transport usage, particularly in areas that are well serviced by ferry and rapid bus services. This will also help to manage and ameliorate traffic congestion issues that are experienced throughout the LGA as employment centres grow.

Facilitate innovative environments and hubs where start-up businesses, entrepreneurs and innovators are supported and connected

The rise of footloose jobs and digital technologies has been recognised, alongside the need to support local job growth and develop a strong local economy that promotes innovation and fosters business networks.

Distance

The issue of distance to suppliers, clients, staff and customers was a key concern for local businesses in the area. This has been compounded by traffic congestion and a lack of public transport options and parking in centres.

Support development of the night-time economy

Feedback from the community indicates having a range of night-time activities in a safe environment is a priority for the community and also a goal of Council. Ensuring the economic activity centres, in relation to urban design, business offerings and programs and activities in the LGA to support this will be key.

Awareness, perception and habits impact business development in the Northern Beaches

Residents and businesses are not aware of the business, workforce and professional environment of the Northern Beaches. The area is largely perceived as a place to relax and spend downtime and local residents and businesses tend to act automatically when it comes to work (ie: place of work is considered outside of the Northern Beaches). It has been identified there is a need to create a better sense of network within the business community, change perceptions and attitudes and encourage residents to work from home.

The complete planning policy review is available at Appendix 1.

3. SOCIO-ECONOMIC PROFILE

This section provides a high-level summary of relevant socio-economic census data of the LGA.

3.1 Population

Population

- Between 2011-2016, there was an increase of approximately 15,235 people in the LGA, with most growth occurring in the Brookvale-Dee Why catchment (+7,090). This was nearly twice as high as the Mona Vale (+3,272) and Manly (+3,122) catchments.
- Comparative population density suggests the Northern Beaches is similar to Greater Sydney at 2,675 and 2,623 persons per square kilometre respectively in 2016.
- The Northern Beaches LGA is forecast to have lower growth rates than the Greater Sydney region and the North District.

TABLE 28: BROADER CATCHMENTS POPULATION TOTALS AND GROWTH RATES (2011-2016)

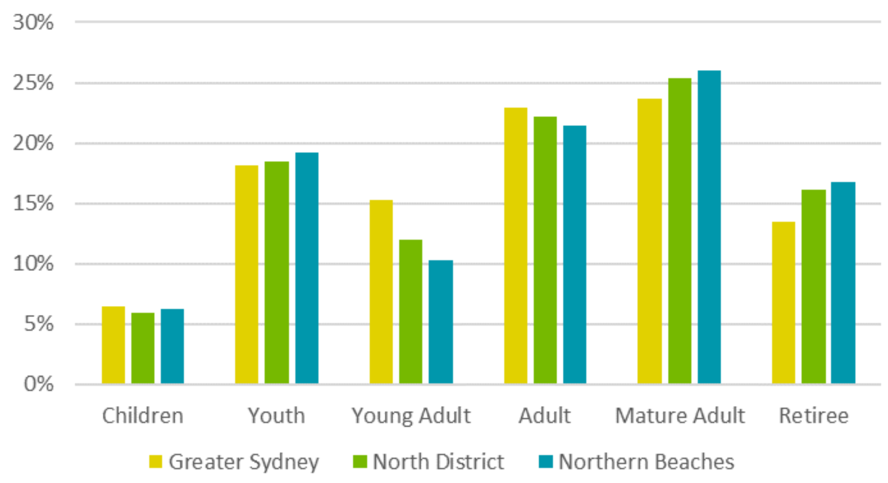
Geography	2011	2016	Growth	CAGR (5-yr %)
Mona Vale	57,170	60,442	3,272	5.72%
Terrey Hills	3,531	3,653	122	3.46%
Frenchs Forest	36,387	37,998	1,611	4.43%
Brookvale-Dee Why	84,987	92,077	7,090	8.34%
Manly	55,620	58,742	3,122	5.61%
Total	*237,641*	*252,876*	*15,235*	*6.40%*

Source: ABS Census 2011 and 2016 (TableBuilder Pro)

Age Profile & Migration

Northern Beaches LGA has an increasingly ageing population, where retirees (+65 years) have a compound annual growth rate at 12.31 per cent between 2006 and 2016 that is higher than growth rates for youth (5-20 years) and mature adults (45-65 years) at 9.39 per cent and 8.53 per cent respectively.

FIGURE 19: COMPARATIVE AGE PROFILE STRUCTURE (2016)



Source: ABS Census 2016 (TableBuilder Pro)

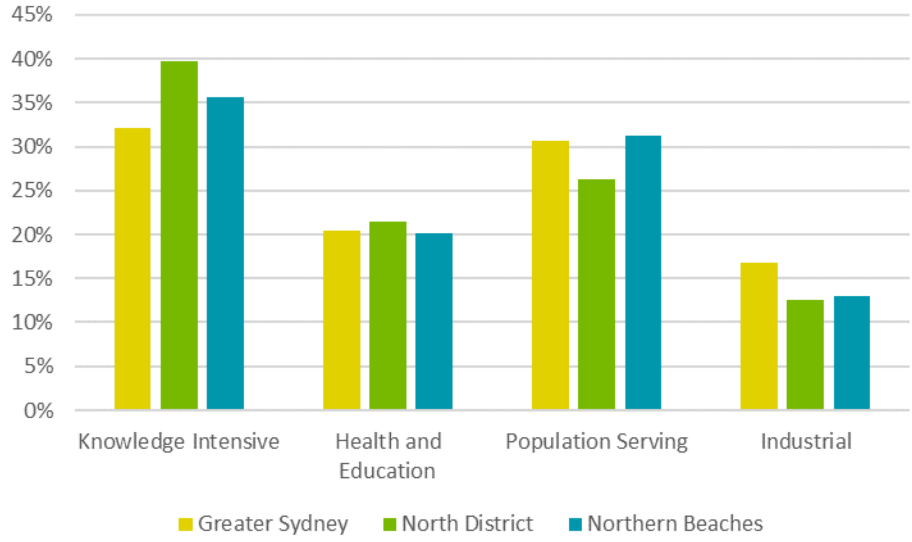
Majority of people moving to the Northern Beaches are coming from other parts of Australia – mostly Sydney. There are, however, larger numbers of overseas migrants locating in Manly and Brookvale-Dee Why. Overseas migrants tend to have a higher proportion of Adults and Young Adults. If these trends persevere, the workforce in Northern Beaches will be largely derived from overseas migrants.

Industry of Employment (PUR – resident workers)

For Northern Beaches LGA:

- Most residents work in knowledge intensive industries and population servicing industries at approximately 32 and 31 per cent. Industrial jobs are lower than Greater Sydney, see Figure 20.
- Between 2006 and 2016, the proportion of knowledge intensive and health and education jobs held by local residents has increased in the LGA, whereas population serving jobs only experienced a small increase and industrial jobs undertaken by residents decreased.
- Residents in the Manly catchment have a higher share of knowledge related jobs and less population serving jobs when compared to the rest of the LGA; residents working in health and education jobs are generally equally distributed across the LGA.

FIGURE 21: COMPARATIVE INDUSTRY OF EMPLOYMENT (PUR) STRUCTURE 2016



Source: ABS Census 2016 (TableBuilder Pro)

3.2 Employment

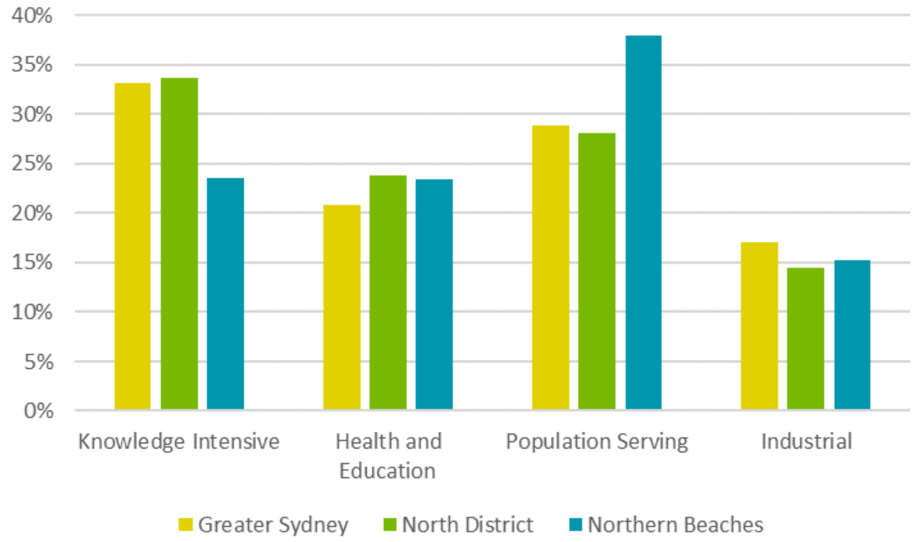
Between the 2011 and 2016 Census periods, Place of Work statistics show an additional 5,993 jobs have been generated on the Northern Beaches, with the Manly catchment having the highest growth rate, almost double of any other catchment. The Brookvale-Dee Why catchment is the major employment area.

Industry of Employment (POW)

- The Northern Beaches has a strong presence of population serving industries compared to Greater Sydney and the North District and a slightly higher proportion of health and education workers than Greater Sydney. There is significantly less knowledge intensive workers located in the LGA than compared to Greater Sydney and the North District, see Figure 22.

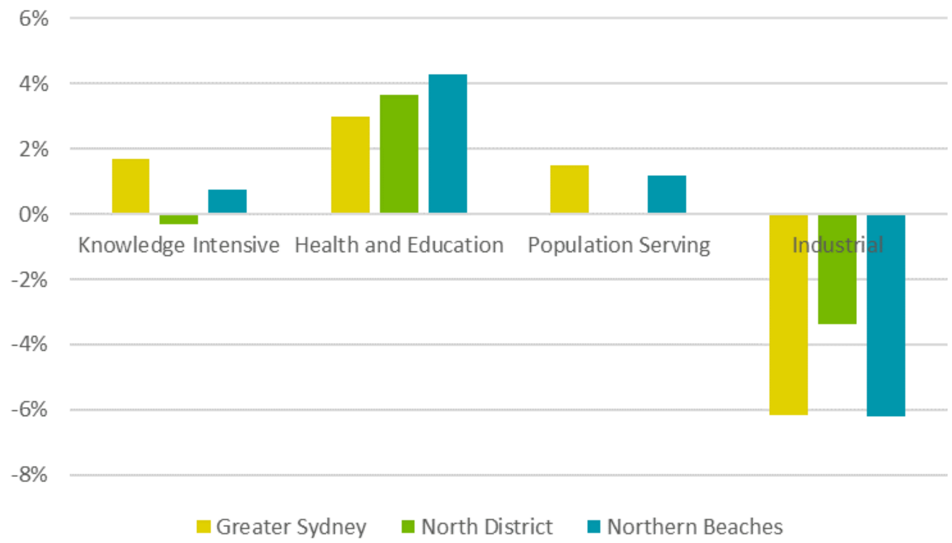
- The LGA has experienced growth in health and education industries, higher than Greater Sydney and the North District. Industrial industries are in decline in the LGA, a similar occurrence seen across Greater Sydney and the North District, see Figure 23.

FIGURE 22: COMPARATIVE INDUSTRY OF EMPLOYMENT (POW) STRUCTURE (2016)



Source: ABS Census 2016 (TableBuilder Pro)

FIGURE 23: COMPARATIVE PROPORTIONAL CHANGE IN INDUSTRY OF EMPLOYMENT (POW) STRUCTURE (2006-2016)



Source: ABS Census 2006, 2011 and 2016 (TableBuilder Pro)

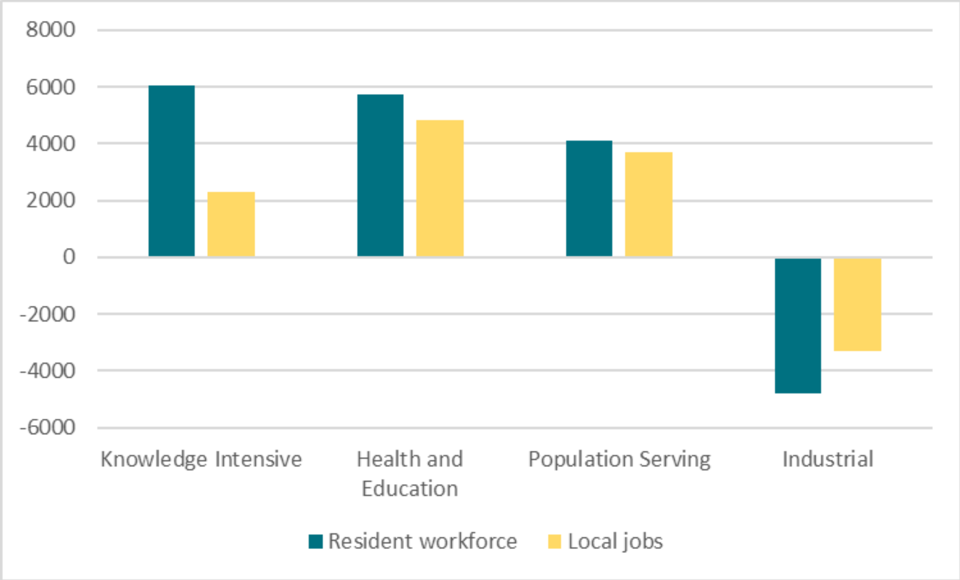
Resident Workforce and Local Jobs

Figure 24 analyses the growth total of employment across the four Broad Industry Classifications between the resident workforce of the Northern Beaches and the local jobs that have been generated over the 10 years between 2006-16.

It shows that the number of Knowledge Intensive workers (6,035) has increased significantly more than the number of Knowledge Intensive jobs that have been generated locally in the region (2,292).

The self-containment of the Knowledge Intensive industry may have declined over the 10 years between 2006-16 given that the number of Knowledge Intensive workers living in the Northern Beaches has increased significantly higher than the number of local Knowledge Intensive jobs.

FIGURE 24: NORTHERN BEACHES COMPARATIVE GROWTH TOTAL EMPLOYMENT CHANGE 2006-16



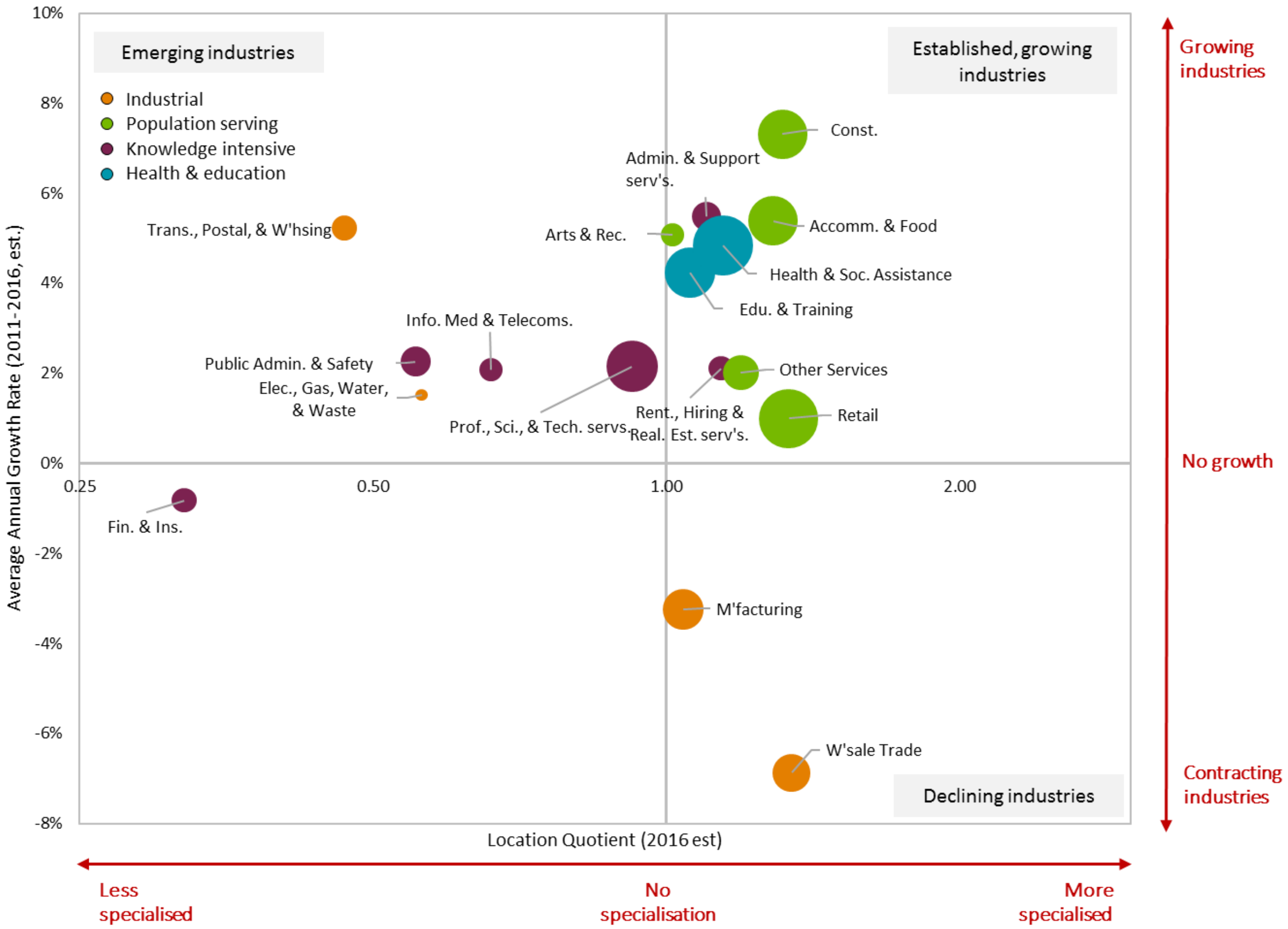
Source: ABS, 2006, 2011, 2016

Industry Specialisation (Location Quotient)

For the Northern Beaches LGA, analysis shows:

- There are a number of industries in the Northern Beaches that are relatively specialised and growing, reflecting diversity in economic performance.
- While no industry in the Northern Beaches has significant specialisation, the most specialised industries are Retail Trade, Accommodation and Food Services and Construction.
- While Professional, Scientific and Technical Services has grown by two per cent since 2011 and is one of the largest Industries in the LGA, it is not as specialised when compared to Greater Sydney. Professional, Scientific and Technical Services can include employment in Finance, Insurance and Legal Services. As data above has indicated, a large number of resident workers leave the LGA to work in Knowledge Intensive jobs elsewhere in Greater Sydney. This highlights a difference between the skills of local residents and the industry specialisation of the LGA.
- Contraction in non-specialised industries is typically associated with industrial precincts such as wholesale trade and manufacturing.
- While other Knowledge Intensive industries are emerging (Information, Media and Telecommunications and Public. Admin and Safety), they are not as specialised as other industries in the top right quadrant.
- Health Care and Social Assistance and Education and Training are two of the larger industries in the top right quadrant of Established and Growing industries, despite not being the most specialised.

FIGURE 25: NORTHERN BEACHES LOCATION QUOTIENT ANALYSIS, 2011-2016



Source: ABS, 2011,2016

Skills Leakage

- Northern Beaches LGA has a self-containment rate of approximately 54 per cent, meaning over half of the resident workforce also work locally. Self-containment generally increases moving further north in the LGA (Manly 41 per cent; Frenchs Forest 43 per cent; Brookvale-Dee Why 55 per cent; Mona Vale 61 per cent).

- A self-sufficiency rate of approximately 77 per cent, meaning over three quarters of the local jobs available are filled by working residents of the Northern Beaches.

TABLE 29: PLACE OF WORK FOR NORTHERN BEACHES' WORKING RESIDENTS BASED ON INDUSTRY TYPE (2016)

Geography	Knowledge Intensive	Health and Education	Population Serving	Industrial
Northern Beaches (A)	15,675	15,075	24,710	8,413
Sydney (C)	16,659	2,013	3,251	1,344
North Sydney (A)	3,691	1,029	1,139	568
Willoughby (C)	1,859	1,643	1,498	652
No Fixed Address (NSW)	1,307	670	2,988	509
Ryde (C)	1,197	618	513	1,177
Ku-ring-gai (A)	364	1,103	477	117
Mosman (A)	382	469	779	50
Parramatta (C)	529	256	322	394
Botany Bay (C)	120	18	167	758

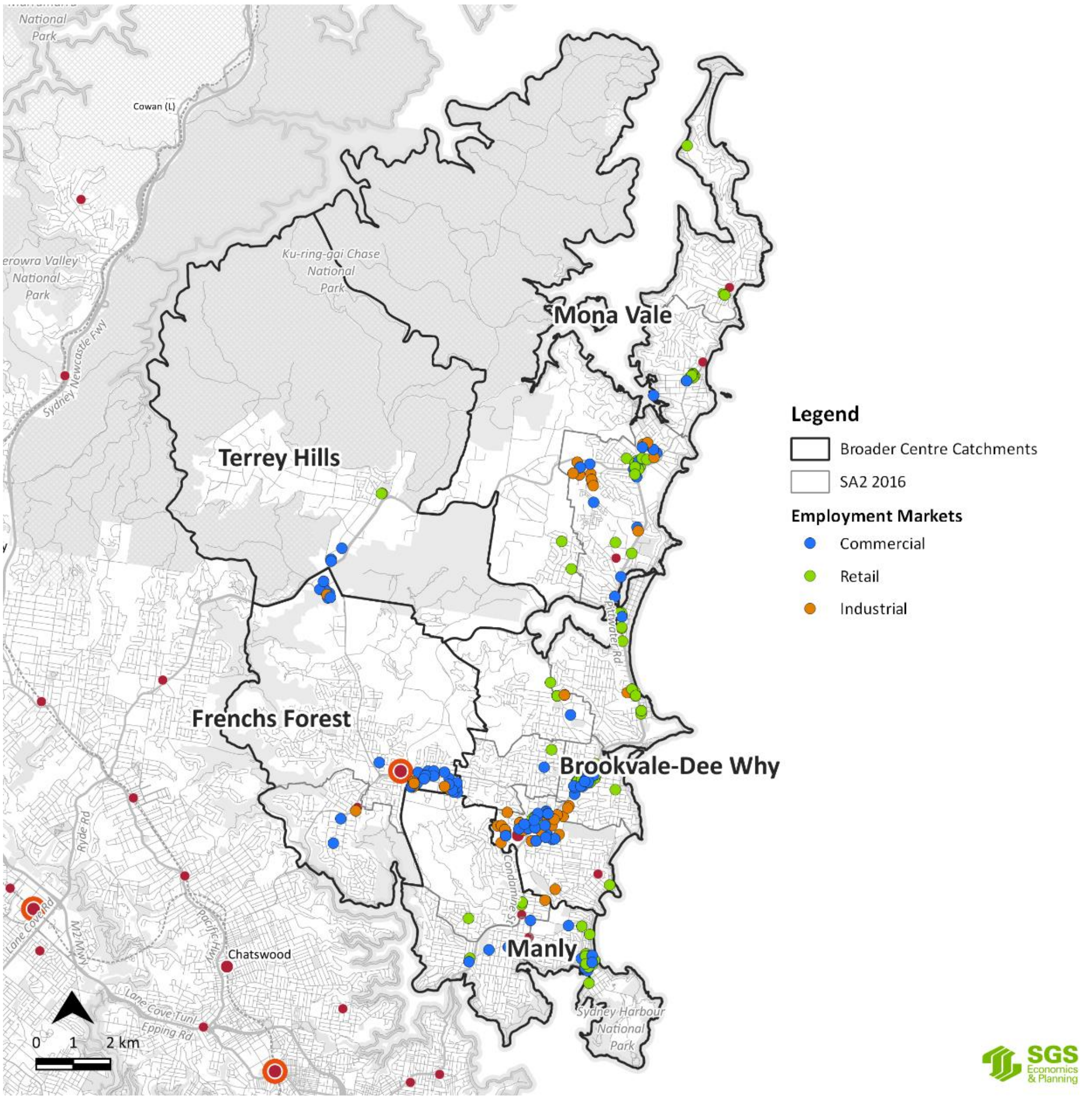
Source: ABS Census 2016 (TableBuilder Pro)

Market Trends - Floorspace Vacancies

The analysis found:

- A concentration of vacancies in centres across the LGA, namely Frenchs Forest, Belrose-Terrey Hills, Manly, Brookvale, Dee Why, Cromer-Collaroy, Narrabeen, Mona Vale and Newport.
- Manly appears to have the highest average price per sqm ($797) for retail and commercial vacancies, while Frenchs Forest has the lowest.
- Industrial properties cost less per sqm when compared to retail and commercial properties, with Brookvale containing the highest average price ($294 per sqm), and Cromer-Collaroy having the lowest ($207 per sqm).

FIGURE 26: EMPLOYMENT MARKET VACANCIES (APRIL 2019)



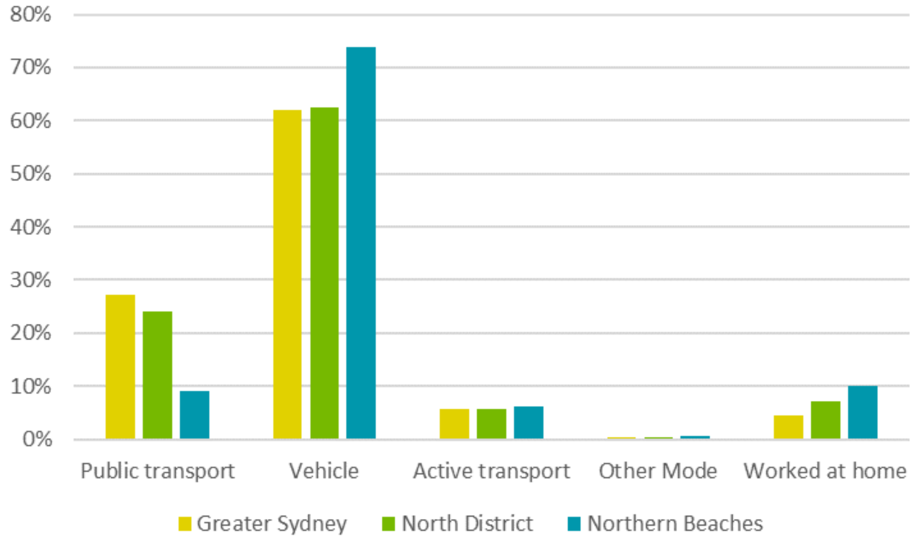
SOURCE: SGS ECONOMICS AND PLANNING 2019 USING REAL COMMERCIAL

Method of Travel to Work (POW)

For Northern Beaches LGA:

- Most workers originate in the LGA, at about 82 per cent.
- Majority of workers use vehicles to access work which is higher than Greater Sydney and the North District, see Figure 27.
- Between 2006 and 2016, there was a slight increase in the proportion of people using public transport to access work and concurrently a drop in those using vehicles. However, both these figures were far less than the proportion seen in Greater Sydney and the North District.

FIGURE 27: COMPARATIVE METHOD OF TRAVEL TO WORK (POW) STRUCTURE (2016)

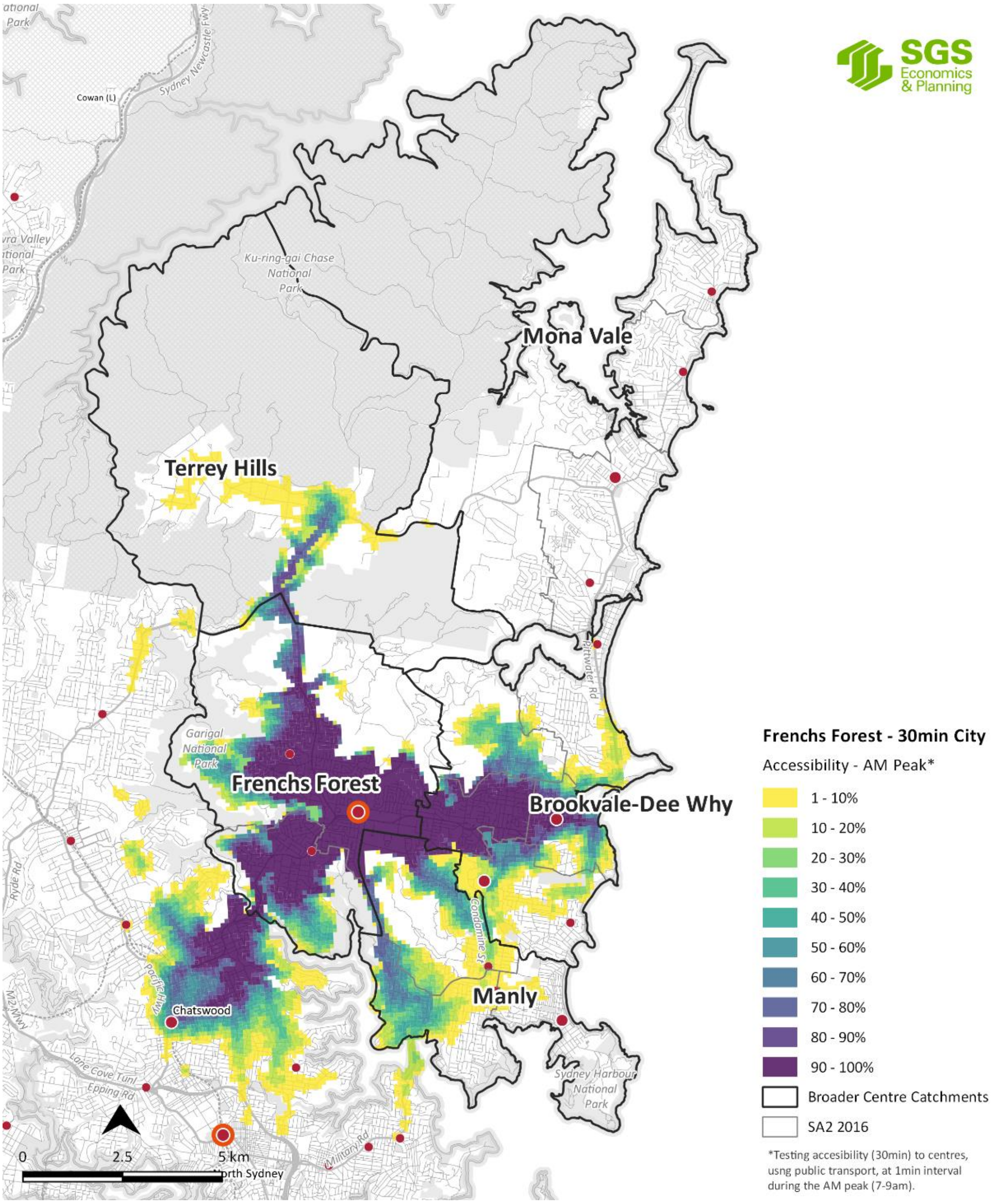


Source: ABS Census 2016 (TableBuilder Pro)

Employment Centre Accessibility

Frenchs Forest has broad 30-minute coverage but low densities. Thirty-minute accessibility to the Frenchs Forest centre is generally focussed east-west within the LGA with strong access between Frenchs Forest and Brookvale-Dee Why. Frenchs Forest centre is also accessible in 30-minutes north to Terrey Hills. There is also good access between Frenchs Forest and Chatswood, see Figure 28. A challenge for Frenchs Forest centre maybe the lack of workers in direct vicinity of the centre given the low densities. This may change with the town centre and Hospital development.

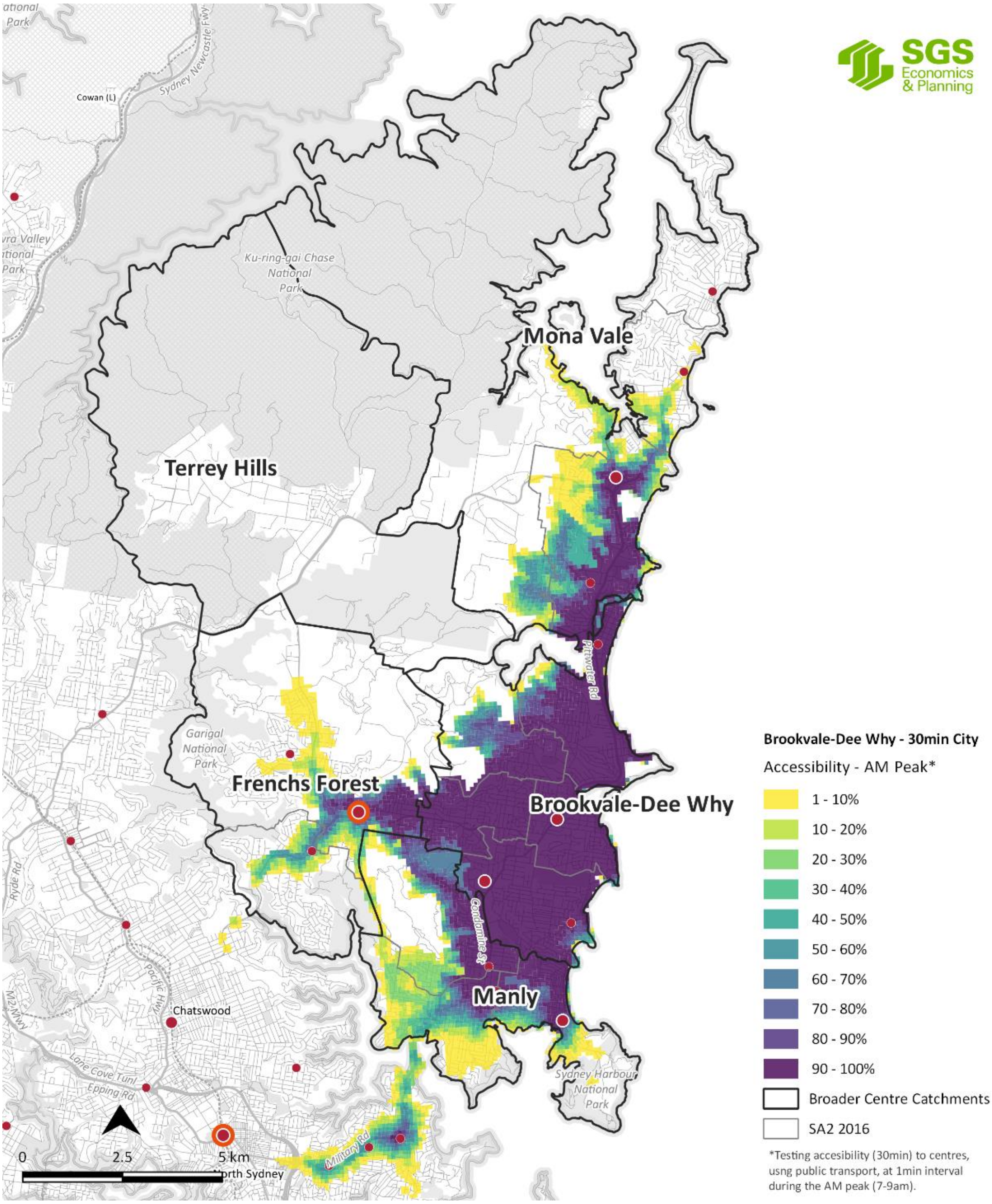
FIGURE 28: 30MIN ACCESSIBILITY TO FRENCHS FOREST DURING AM PEAK– MAP (2019)



Source: SGS Economics and Planning 2019 and Open Data NSW - General Transit Feed Specification (GTFS) 2019

Thirty-minute accessibility in the AM peak to Brookvale-Dee Why is widespread across the LGA. The strongest level of access (90-100 per cent) reaches other town centres as far north as Warriewood and south to Manly and west to Frenchs Forest, see Figure 29.

FIGURE 29: 30MIN ACCESSIBILITY TO BROOKVALE-DEE WHY DURING AM PEAK– MAP (2019)



Source: SGS Economics and Planning 2019 and Open Data NSW - General Transit Feed Specification (GTFS) 2019

3.3 Tourism

For the year ending March 2018, Destination NSW estimates the total number of international visitors to Manly (those who stayed overnight and those who visited on a day trip) was 1.1 million. This was a quarter of all international visitors to NSW. The total number of international visitors that stayed overnight was 62,600 persons. The top activities that they undertook in Manly were eating in restaurants and cafes (96 per cent), visited the beach (90 per cent), sightseeing (87 per cent), shopping for pleasure (82 per cent), and visited national/state park (66 per cent).

On the domestic visitor front, there was 901,200 domestic overnight visitors in the year ending March 2018 (including those who stayed overnight elsewhere). This accounted for three per cent of all domestic visitors to NSW. They mainly travelled to Manly to visit family and friends and mostly came from regional NSW. The top activities they engaged in were eating out (88 per cent), visiting family and friends (55 per cent), going to the beach (51 per cent) and sightseeing (33 per cent).

3.4 Insights

Low population growth rates and an ageing population

Northern Beaches LGA will have lower growth rates than the Greater Sydney region and the North District, as well as an increasingly ageing population which is generally consistent with Greater Sydney. There may be a rise in the 20 to 30-year old 'young adult' age bracket as the youth group transitions. Overseas migrants are locating in Northern Beaches LGA and tend to be of working age. They would replenish the workforce. Economic centres, businesses, planning and policy will have to respond to the trend of an ageing population and attempt to maintain diversity in the community by catering to the needs of all age groups.

A part-time and highly self-contained workforce

Northern Beaches LGA has a higher proportion of people working part-time than Greater Sydney and the North District and this has been growing since 2006. Just over half of the local resident population work locally, and over three quarters of the local jobs are filled by local working residents. Self-containment generally increases moving north in the LGA.

A higher share of local residents work in knowledge intensive jobs and population serving jobs, although there has been a rise in the number of people working in health and education. Residents working in industrial industries has decreased over time. The lack of affordable housing may be linked to the decrease of residents working in industrial industries and the high number of workers coming to the LGA working in healthcare related jobs.

Knowledge Intensive and Population Serving jobs are well represented in the LGA, Health and Education jobs have experienced the most growth

Most local residents are employed in knowledge intensive related jobs (about 32 per cent) and population serving related jobs (about 31 per cent). Between 2006 and 2016, the proportion of knowledge intensive and health and education jobs held by local residents increased in the LGA, whereas population serving jobs only experienced a small increase and industrial jobs undertaken by residents decreased by about -6 per cent.

Residents in the Manly catchment have a higher share of knowledge related jobs and less population serving jobs when compared to the rest of the LGA; residents working in health and education jobs are generally equally distributed across the LGA.

Professional and managers are the most common occupations for local residents

Professionals and managers living in the LGA tend to be located in the suburbs of Manly-Fairlight, Balgowlah-Clontarf-Seaforth; whereas industrial workers in the LGA tend to be located around Beacon Hill-Narraweena and Dee Why-North Curl. Suburbs with major retail outlets had a greater presence of sales workers.

Growth rates indicate all occupations held by local residents in the LGA have remained stagnant or declined between 2006 and 2016, except professionals and managers, and community and personal services which have significantly risen. The growth in community and personal services occupations is likely to be linked to growth in health and education jobs overall and an ageing population.

Employment has grown in Manly

An additional 5,993 jobs have been generated in the LGA between 2011 and 2016 with the majority of these located in the Manly catchment with +2,489 jobs and a growth rate of 20 per cent. Brookvale-Dee Why catchment also exhibited a strong rise in jobs at +2,472 jobs and a growth rate of 10 per cent.

Increased proportion of professional services and community and personal services jobs available in the LGA

In relation to the types of jobs people work within in the LGA, data indicates there has been an increase in the proportion of professional services and community and personal services jobs. There has been a decline in clerical and administrative workers and sales workers. There are slightly more professional jobs located in Manly and Frenchs Forest; slightly more sales related jobs in Mona Vale, Brookvale-Dee Why and Manly; and slightly more technician and trade jobs in the Terrey Hills catchment.

Resident workforce compared to local job offerings is more balanced for health and education and population serving industries than knowledge intensive industries

The number of knowledge intensive workers living the LGA (6,035) has increased more than the number of knowledge intensive jobs that exist in the LGA (2,292). Whereas, the number of resident workers to local jobs for health and education (5,742 resident workers to 4,836 local jobs) and population serving (4,103 resident workers to 3,683 local jobs) industries is more balanced.

High rates of private vehicle use to access employment

Private vehicle use for the journey to work is extremely high in the Northern Beaches LGA and above the level of vehicle use for Greater Sydney and the North District. Private vehicle use generally increases moving north of the LGA. High vehicle use could be attributed to the lack of public transport options, and distance, to employment centres outside of the LGA but also within the LGA, given the high rate of job self-containment. The proportion of people using public transport has grown in the LGA, albeit at a much lower level when compared to Greater Sydney and the North District. Around Manly there is greater public transport use compared to the rest of the LGA.

Employment Centre Accessibility

There are strong 30-minute linkages between Frenchs Forest and Brookvale-Dee Why, as well as to Chatswood. Generally, there is strong 30-minute access radiating out of Brookvale-Dee Why to surrounding areas in the LGA. Manly and Mona Vale centres have contained 30-minute accessibility in the AM peak. Low densities around centres, in particular Frenchs Forest and Mona Vale impacts the availability of workers within the 30-minute radius.

Strong presence of population serving jobs and health and education jobs in the LGA

Northern Beaches LGA has a higher percentage of population serving jobs than when compared to Greater Sydney and the North District. Health and Education jobs have increased in the LGA in the decade 2006-2016. The LGA shows specialisation in both these industries when compared to Greater Sydney. While Knowledge Intensive industries are emerging (Information, Media and Telecommunications and Public. Admin and Safety), they are not as specialised as other industries in the LGA, most likely due to their preference to locate in larger commercial centres such as the CBD.

Social assistance, aged care, primary and secondary school teachers and workers are coming to Northern Beaches LGA to work

In relation to the aged care workers, this may increase as the population ages and Northern Beaches residents continue to be employed in other industries. This may be linked to the lack of affordable housing for key workers in the LGA.

High numbers of Knowledge Intensive workers leave the LGA for jobs

Approximately 16,659 residents leave the Northern Beaches LGA to travel to Sydney CBD for jobs in Knowledge Intensive industries. This is slightly more than the number of residents who remain working in Knowledge Intensive industries within the LGA, at about 15,675. Approximately 3,691 and 1,307 residents travel to North Sydney and Willoughby respectively to work in Knowledge Intensive industries. This could be jobs related to Banking, Finance and Investment, Legal and Insurance Services. There are also a notable number of residents travelling to Sydney CBD for jobs in Health and Education, Population Serving and Industrial industries at 2,013, 3,261 and 1,344 persons respectively.

Potential tension with Manly centre

The Manly catchment has exhibited the highest growth rate in employment between 2011-2016. Place of work data indicates the Manly catchment has a high share of professional related jobs. Policy directives for the centre encourage a diverse mix of uses in tourism, retail and entertainment components of the centre, as well as diversifying commercial activity, while the closure of Manly hospital will see a likely decline in health-related jobs. Over time, tourism to Manly has been variable. A clear vision and balancing competing industry land use into the future will be required.

Market trends highlight the desirability of Manly and Brookvale

Manly appears to have the highest average price per sqm ($797) for retail and commercial vacancies, while Frenchs Forest has the lowest. Industrial properties cost less per sqm when compared to retail and commercial properties, with Brookvale containing the highest average price ($294 per sqm), and Cromer-Collaroy having the lowest ($207 per sqm). This further reiterates the popularity of Manly as a centre, and the need to improve the desirability of Frenchs Forest as a centre for retail and commercial purposes; for Brookvale this highlights the desirability of the industrial zone and a need to manage the pressures and demand in this centre given the ‘retain and manage’ policy directives.

The complete socio-economic profile is available at Appendix 2.

4. TRENDS AND DRIVERS

This section is a high-level summary of trends and drivers that may impact future land use and economic activity centres in the Northern Beaches LGA.

4.1 Retailing

Changing Profile of Supermarkets

Traditionally, Australia's groceries market has been dominated by Woolworths and Coles brands. Even today, together, they account for about 70 per cent of the market[1]. However, the past decade has seen the rise of two main competitors – IGA and Aldi. Where supermarkets tend to service their surrounding population catchment, anecdotally Aldi appears to challenge this trend, with people often deliberately shopping at Aldi in search of a bargain even though it is not their closest supermarket.

In addition to the shifts in market share of supermarket operators, there are also shifts in Australian consumer lifestyles and food retailing preferences. Supermarket operators, regardless of who they are, need to adapt to the changing market.

The demand for organic produce is a small but growing sub-sector of food retailing. It is estimated that the total value of the organic market in Australia is $2.4 billion, an 8.8 per cent increase since 2012[2].

Another new trend that may gain momentum is the development of smaller format supermarkets that are tailored to the local market and offer a larger range of convenient, ready-to-go foods. Key reasons for the development of smaller supermarket stores is the lack of available land in urbanised areas as the population increases in density, higher rents, the arrival of global players in the Australia markets forcing store closures and rising inventory costs and wages requiring downsizing. Supermarket operators, however, see the smaller format as an opportunity to offer tailored products of convenience rather than focusing on a wide selection of goods, at a range of prices.

Rise of Regional Shopping Centres

Historically, retailing has been viewed as a city centre or town centre activity, particularly for higher order retailing. However, regional suburban centres have emerged as the preferred destination for many consumers and preferred location for retailers which has often come at the expense of traditional local retail centres.

It has been noted that the popularity of regional shopping centres is being challenged with the rise of online retailing, emerging international brands, pop-up stores, general weak retail sales growth and smaller neighbourhood centres offering a range of conveniences. Repurposing these centres is seen as a requirement to gain back market share that includes changes in the retail mix that may include medical centres, gyms and the inclusion of entertainment and events[3].

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[1] Roy Morgan Research 2015, 'The ALDI effect: Australia's changing supermarket scene' – 22 June 2015 http://www.roymorgan.com/findings/6297-aldi-effect-australias-changing-supermarket-scene-201506220132

[2] Australian Organic, 2018, Australian Organic Market Report, https://user-cprcmgz.cld.bz/Australian-Organic-Market-Report-2018, date accessed: 09/04/2019, p. 27

[3] Commercial Property Guide, 2019, 'Sub-regional shopping centres set course for survival', https://www.commercialpropertyguide.com.au/blog/investing/sub-regional-shopping-centres-set-course-for-survival-126, date accessed: 10/04/2019

Emergence of Café Culture, Food Centres and Experience Dining

NAB notes food retailing has been one of the better performers in the retail sector, largely driven by a boom in breakfast and lunches at cafes and online ordering of take-way for dinner[4]. Artisan bakeries and patisseries have increasingly sought to re-position themselves as cafés, encouraged by the strong growth in recent times. It is anticipated restaurants will expand café-style operations as they compete with cafés for customers[5].

Outdoor dining in Sydney has remained popular, particularly given the conducive climate. The move towards outdoor dining and restaurant-defined retail strips requires a reconfiguration of footpaths and road alignment, a strong focus on urban amenity, including street trees, provision of furniture and pedestrian/diner safety, as well as supportive policies that enable these developments to take place.

For shopping centres and associated food courts, it has been noted they are now being refitted into high quality, contemporary dining precincts that refocus the food offering with some clustering cafes, restaurants and fresh food outlets.

The Property Council of Australia has noted that the rise of UberEATS and Deliveroo and the popularity of ordering food-on-demand at home, is encouraging restauranteurs to set up 'dark kitchens'. This is where restauranteurs set up multi-kitchen sites, often in a low-grade retail space or repurposed basements, to cope with the demands of home delivery[6].

Rise of Online Retailing

Online retail currently makes up a small proportion of retail turnover in Australia where online spending has been estimated at about 6.4 per cent of total retail turnover. Despite these low levels, growth has been strong. Since 2013, it is estimated online retail turnover has grown 142 per cent[7].

For traditional 'bricks and mortar' retailers, to overcome the impact of online retailing and optimise centre competitiveness, landlords are providing increased floorspace for food, beverage, grocery and non-retail uses to align with strong customer trends towards dining out. Shopping centre are also exploring mixed-use options or change-of-use options where more value is extracted from the site by adding residential, commercial or hotels to surplus land or air space above centres. Entertainment, events and 'experiences' are also becoming more important to develop the social aspect of retail, as millennials seeks a different shopping experience than previous generations[8].

Retail considerations for Northern Beaches: Growth of smaller format supermarkets in centres may be arise; Warringah Mall is likely to continue to be a centre of gravity as a regional shopping mall; fine grain retailing could set smaller Local Centres apart from larger Strategic Centres; the rise of online retailing means the value of industrial lands for logistics in Northern Beaches could become more apparent.

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[4] NAB, 2017, The Future of Retail: the trends reshaping retail and the future implications for the Australian marketplace', https://business.nab.com.au/wp-content/uploads/2017/09/The-future-of-retail-September-2017.pdf, date accessed: 09/04/2019

[5] IBISWorld, 2018, 'Cafes and coffee shops in Australia', www.ibisworld.com.au, p. 4

[6] Property Council of Australia, 2017, 'Top five food retailing trends in 2018, https://www.propertycouncil.com.au/Web/Content/News/National/2017/Top_five_food_retailing_trends_in_2018.aspx, date accessed: 09/04/2019

[7] Department of Industry, Innovation and Science, 2017, Inquiry into impacts on local businesses in Australia from global internet-based competition: Department of Industry, Innovation and Science submission, industry.gov.au, p. 9

[8] 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, dated accessed: 28/03/2019

4.2 Industrial and Urban Services Lands

Changes in Freight Transportation

Part of the experience of online retailing is also an expectation that goods will be rapidly delivered to customers. A study by McKinsey & Company found approximately one quarter of consumers would pay a premium for same-day delivery[9]. With the growth in online retailing and e-commerce and raised expectations for speedy delivery, 'last mile' logistics has become a priority. In terms of land, this places an even higher value on logistics, industrial services and dispatch land uses in the right areas close to populations.

Advanced Manufacturing

Globally, manufacturing and the supply chains that support it are changing. While manufacturing covers a large spectrum of industries, services and products, increasingly complex and inter-connected changes are transforming these industries into what is collectively referred to as 'advanced manufacturing'.

The Committee for Sydney notes cities are at the heart of this evolution in manufacturing and Sydney is well placed to lead the manufacturing revolution due to recent investment in infrastructure, the fact our universities are heavily invested in progressing the innovation agenda, and Sydney is a hub for tech start-up and fintech capital with the capacity for digital innovation and technology and the creative and design talent that underpins it[10].

Industrial considerations for Northern Beaches: Metropolitan Industrial Lands Policy that supports a 'retain and manage' approach to industrial lands, changes in freight transportation and the importance of 'last mile' delivery and the opportunities that are opening up with the transition to advanced manufacturing production reiterate the value, importance and opportunities that could arise from the industrial and urban services lands in Northern Beaches LGA.

4.3 Night-Time Economy

The value of the night-time economy in Greater Sydney is estimated to be over $27.2 billion per annum, employing about 234,000 people and with over 180 night-time economy establishments per sq km in the Eastern Harbour City. The food sector contributed $15.7 billion, entertainment sector contributed $7.1 billion and the drinks sectors was valued as $4.4 billion.

Deloitte argues it is reductive to simply focus on pubs, clubs and a drinking culture for the urban, young as all that makes up Sydney's night-time economy. A vibrant night-time economy should be seen as a broader range of activities that can include 24-hour gyms, late night supermarkets, other late-night shopping options, late night museum and gallery openings, food festivals, as well as the obvious options of bars, restaurants, nightclubs, theatre and performances and sporting events. It would include a range of activities that appeal to all age groups, both locals and visitors. All of these activities then must be underpinned by extended hours of public transport.

Dr Rob Shaw, a geography lecturer at the University of Newcastle in the United Kingdom, also writes that it must be recognised that the night-time economy of a city is broader in the sense of being more than just entertainment and activities. The night-time economy has a practical and functional layer associated to it where people also work to 'reset' the city to make it inhabitable for daytime city functions. The night-time economy is also where workers clean the streets, conduct road works, organise distribution and logistics, or complete night-time

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[9] McKinsey & Company, 2016, 'How customer demands are reshaping last-mile delivery', https://www.mckinsey.com/industries/travel-transport-and-logistics/our-insights/how-customer-demands-are-reshaping-last-mile-delivery, date accessed: 28/03/2019

[10] Committee for Sydney, 2017, Manufacturing 4.0 Cracking the code for Western Sydney, http://www.sydney.org.au/wp-content/uploads/2015/10/Manufacturing-4.0.pdf, date accessed: 12/04/2019, p. 4

shift work in places like hospitals. Facilities and services, Shaw concludes, are needed that service broader range of activities that people do at night[11].

NTE considerations for Northern Beaches: There are two sides to the night-time economy for Northern Beaches to consider. On the social side, night-time activities need to cater to all demographics, and for a centre like Manly, to locals and visitors. The night-time economy in French Forest, Dee Why, Mona Vale and smaller Local Centres would also have to be developed. With the development of the Frenchs Forest health and education precinct, actions for the night-time economy would also have consider the more practical component – assisting the movements and safety of shift workers.

4.4 Home based businesses and co-working spaces

A home-based business is where the home of a person is also the primary place of business, where it can be a room or a space set aside for business activities. Approximately one million people are operating home-based businesses in Australia[12]. A 2015 business survey of Warringah Council area indicated that a high proportion of respondents were home-based businesses (37%), almost double the NSW wide estimate at 20%[13].

In the UK, it is estimated that there are approximately 2.7 million home businesses, rising by 40 per cent since 2000, and that about 18 per cent (470,000 businesses) of the home businesses are considering an upwards transition into a more commercial space[14]. The first move out of the home office can be transformative – giving businesses more physical space, and more ability to hire employees, as well as promoting a change of mindset. However, the transition can also be a large cost to the business. Two-thirds of respondents in the UK study indicated that the high cost of real estate is the number one obstacle, while tax and regulation was also a problematic area. The UK Economic and Social Research Council has identified that home-based businesses lack policy support, where their potential for entrepreneurship is often underestimated in cities[15].

Co-working spaces offer home-based businesses a cheaper solution when making that first move out of the home-office (rather than signing a lease on a commercial space). They are professional spaces that also give individuals working there a chance to meet and collaborate with other businesses of a similar size[16].

Coworking spaces are shared workplaces that are used by professionals working in different knowledge related industries, often freelance and self-employed workers. Physically, these coworking spaces are rented office facilities that can include a desk, wifi connection, common areas, as well as a range of other amenities like printers, private phone booths, 24/7 access, front desk services, mail and package handling and professional and social events. Rental options vary and can include a standalone office for a team, a hot desk in an open space or a permanent desk in shared office[17].

Considerations for Northern Beaches: Coworking spaces have grown in popularity in recent years. The relevance of these spaces to the local population will have to be investigated more closely what particular format would work best to support greater productivity.

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[11] Shaw, R, 2018, 'Newcastle at Night', University of Newcastle, https://www.ncl.ac.uk/who-we-are/vision/ncl-at-night/?utm_source=fb&utm_medium=social&utm_campaign=vision&utm_term=link&utm_content=newcastle-at-night, date accessed: 11/04/2019

[12] Australian Government, 2019, https://www.business.gov.au/Planning/Business-structures-and-types/Home-based-businesses, dated access: 23/12/2019

[13] Warringah Council, 2015, Warringah Council Business Survey Summary Report, p. 9

[14] Vonage, 2017, http://www.homebusiness100.co.uk/wp-content/uploads/2017/09/StepUps-Report-FINAL-DIGITAL.pdf, dated accessed: 23/12/2019

[15] UKRI, 2018, https://esrc.ukri.org/news-events-and-publications/news/news-items/home-based-businesses-lack-policy-support/, dated accessed: 23/12/2019

[16] Vonage, 2017, http://www.homebusiness100.co.uk/wp-content/uploads/2017/09/StepUps-Report-FINAL-DIGITAL.pdf, date accessed : 23/12/2019

[17] WeWork, https://www.wework.com/workspace, date accessed: 15/05/2019

4.5 Sustainability

In 2015, 193 Member States including Australia adopted the 2030 Agenda for Sustainable Development. It provides a blueprint for countries to work together to tackle climate change and achieve a sustainable future through improving health and education, reducing inequality, fostering economic growth, preserving oceans and forests and collaboration. The Agenda aims to integrate the social, environmental and economic dimensions of sustainable development.

New developments and urban renewal projects are central to the development of sustainable cities and communities.

Considerations for Northern Beaches: Northern Beaches Council is aiming to be a leader in sustainability. There are a number of innovative business and design concepts that could be implemented to help progress the sustainability agenda within the LGA, for example vertical farming and smart infrastructure that can include environmental sensors.

4.6 Insights

All facets of the retail landscape are changing

The retailing landscape is varied and changing. Some of the new supermarkets offerings are smaller in format with a more tailored and gourmet selection of foods and are also aimed at appealing to time-poor workers that want healthy and ready-to-go meals. Growth of smaller format supermarkets in centres may arise in the Northern Beaches.

Regional shopping centre maintain popularity but are also becoming more mixed-use centres to compete with the rise in online retailing. Fine grain retailing offers a point of difference to centres that contain large shopping centres and can encourage a more unique, boutique experience at a human scale. Warringah Mall is likely to continue to be a centre of gravity as a regional shopping mall for the LGA. Fine grain retailing could set smaller local centres apart from the larger strategic centres. The food and dining scene have seen strong success in cafes, some restaurants are building the 'experience' components with other activity to attract diners and food courts are redeveloping to engage with the 'outdoors' and improve amenity.

Online retailing is impacting traditional bricks and mortar retailing and these retailers are having to find new ways to engage and attract customers. Online retailing growth has increased the value of industrial and urban services lands that process these products and reiterates the value of these lands in the LGA.

Retaining valuable industrial and urban services lands

With the rise in online retailing, the value of industrial and urban services lands for logistics uses located in close proximity to residential areas has never been more apparent. Advanced manufacturing has seen the inclusion of greater technology in the manufacturing process and some of these types of manufacturing processes could locate in the industrial precinct into the future. There has also been growth in creative led land uses in these areas. Ensuring these lands in the Northern Beaches LGA are retained will be important to ensure industrial and urban services provide for local communities and are not overcome by creative-led gentrification.

There are two components to a night-time economy that require a planning response

A night-time economy has two components, firstly, a practical and functional component where services, safety and amenity assist late-night workers and shift workers. A relevant planning response will be required around the Frenchs Forest centre in this regard. Secondly, a more social component where events, places and activities should cater to the needs and interests of the local community in the LGA. Local studies and policies indicate this is a key priority for the Northern Beaches and will have to be progressed in centres like Manly, Dee Why, Mona Vale and the smaller local centres.

Coworking spaces can take many forms

Coworking spaces can cater to different work styles for individuals to small companies, for freelancers, independent workers and start-ups. Coworking spaces can support a variety of concepts, such as promoting the arts, sustainability or the concept of community. Some coworking spaces are evolving to include cafes and retail spaces.

The relevance of these spaces to the local population will have to be investigated more closely through business surveys to determine whether the local population has need of these spaces, and if so, what particular format would work best to support greater productivity.

Employment opportunities, changes to the built environment and economic services and activities will be needed to support the ageing population

The Northern Beaches has a significant ageing population. Design and access to economic centres in the LGA will have to consider their needs. Socially, businesses in these centres and the activities offered will have to cater to their abilities and interests to ensure they continue to be active and engage members of the community. With the rise in this population, the need for allied and social assistance services may increase within the LGA. Determining how the Frenchs Forest health and education precinct can assist this increase will be beneficial. Economic centres must also respond and cater to the rest of the population in the LGA, including those migrating in to the LGA that will help replenish the workforce.

There are many strengths to tourism in Australia

Arts and culture-based tourism, food and wine centred tourism and nature-based tourism are all strongly represented within the NSW visitor economy. There is potential for these areas to be capitalised upon further in NSW.

Northern Beaches contains a number of valuable natural assets. Given tourism and visitors are such an important contributor to the Greater Sydney economy and Manly is already internationally recognised as a key tourism site; it will be valuable to ensure visitor access and ability to engage in local activities or local businesses within the LGA is important. Protecting the natural environmental should also be a key consideration.

The drive to build sustainable and smart cities

Actions to tackle climate change have to be supported by all levels of government. The Australian Government has adopted the Agenda for Sustainable Development. Technology offers local councils innovative ways to contribute and progress this movement.

Northern Beaches Council is aiming to be a leader in sustainability. Case studies highlight there are innovative business and design concepts that could be implemented to help progress the sustainability agenda within the LGA.

The complete trends and drivers chapter is available at Appendix 3.

5. PRECINCT PROFILES

This section profiles each of the key centres and employment precincts in the Northern Beaches LGA.

5.1 Introduction

The precinct profile provides the following information:

- Estimate of land use mix and floorspace
- Overview of industry mix and projected growth
- Analysis of industry specialisation compared with North district.

Where considered relevant, a more detailed analysis of 4-digit ANZSIC categories has been done to understand the relative depth of certain industries within the centres. A review of population size and residential profile of the local centre catchment has also been undertaken. These are provided in a full profile in Appendix 4 of this report.

Please note the following aspects about the data:

- Larger Centres focus on suburb level boundaries, while Smaller Centres captures data within 800m catchments.
- Employment projections have been taken at a 1-digit level for all Industries of Employment. Where appropriate, Manufacturing has been taken at a 2-digit level.
- The analysis utilises the Travel Zone Projections (TZP2016 v1.51) dataset from TPA, which has geographies which do not perfectly align with suburb boundaries. This will explain any slight discrepancies in employment data for each centre which may have already been presented to Northern Beaches Council in other studies.
- Significant % change of employment from 2016-36 may be as a result of employment originally being low, and any change resulting in significant employment change.
- Conditional formatting (green being the highest, red being the lowest) has been applied separately to the Growth Total and % Change of Employment from 2016-36. This has been done in order to achieve a scale within the individual columns for accurate insight.
- ABS ANZSIC employment categories have been organised into four Broad Industry Categories (BICs), see Appendix 7 for more information.
- ABS data has been used to conduct analysis at a 4-digit ANZSIC Employment level for select precincts in order to identify micro-clusters, while the rest the precinct has been profiled using TPA data. Discrepancies between totals may arise due to differing boundaries to be used- Travel Zones for TPA data, and DZNs (Destination Zones) for ABS data. It should also be noted that ABS further distorts data when it is analysed at a fine-grain scale in order to protect individual person(s).

The following Age Profile definitions and reasoning has been applied:

- Children 0-5 (still out of school system)
- Youth 5-20 (mostly still living with parents)
- Young Adult 20-30 (starting to move out, becoming independent, saving for deposit)
- Adult 30-45 (starting a family, buying a house)
- Mature Adult 45-65 (moving to better neighbourhoods, settling long term, less mobile)
- Retirees 65+ (mainly out of work force)[18].

[18] Some people remain in the workforce after the age of 65, to be eligible for Age Pension you must be 65 or older

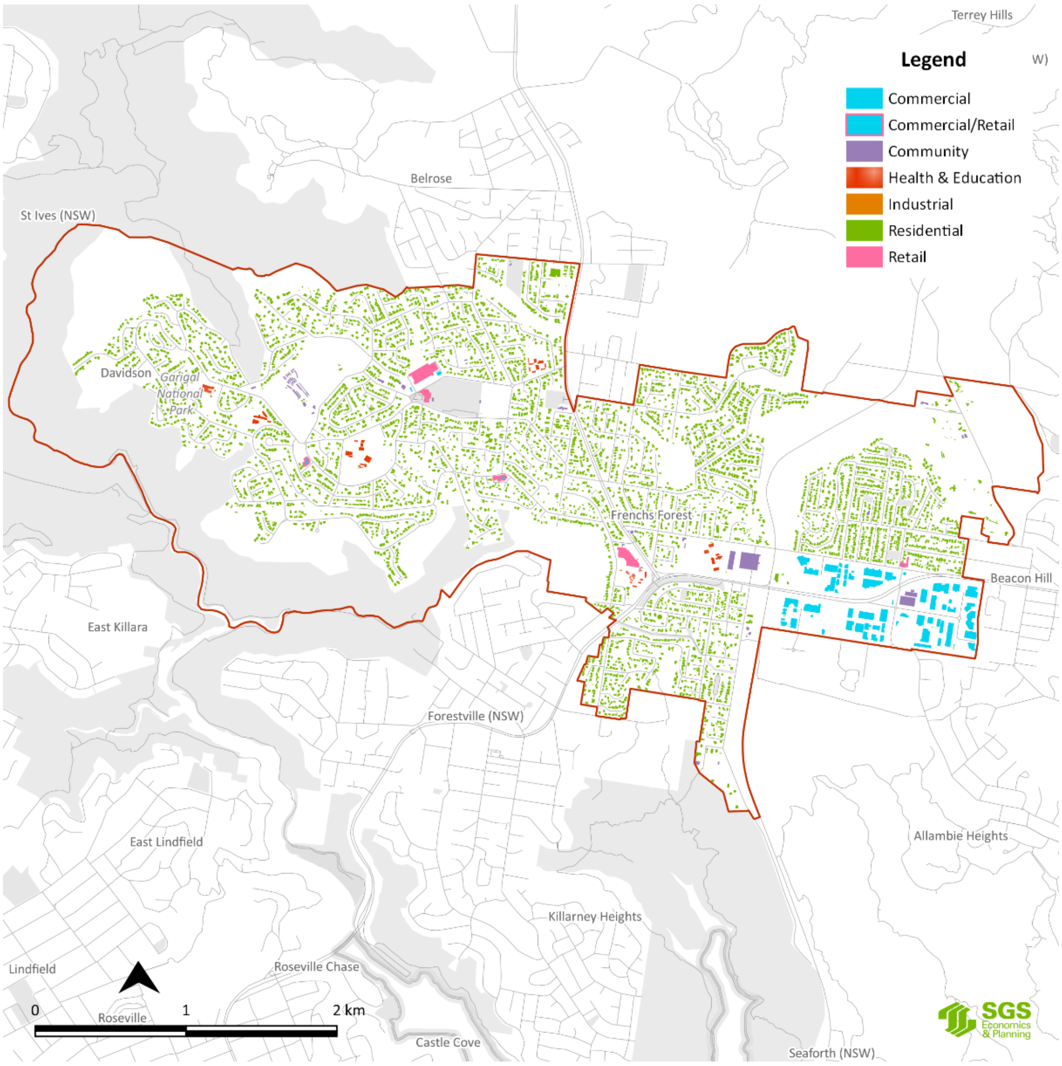
5.2 Strategic centres

Frenchs Forest

Frenchs Forest is a suburban neighbourhood transitioning to a major employment centre with a developing Health and Education Precinct, anchored by the Northern Beaches Hospital, a developing town centre and a business park in close proximity. Workers in the centre come from both within and outside of the LGA, reflecting the strategic nature of the centre.

Frenchs Forest is characterised by a separation between the hospital and future Town Centre from the 1970s Business Parks to the eastern edge of the suburb by the Wakehurst Parkway and Warringah Road. Business parks are large-format office buildings with on-site carparking facilities. Despite the B7 Business Park zoning, Frenchs Forest tends to have more of an industrial character.

FIGURE 30: FRENCHS FOREST LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

TABLE 30: FRENCHS FOREST LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	4,996	0.2%
	Other Food	765	0.0%
	Clothing	1,176	0.1%
	Hospitality	2,961	0.1%
	Household goods	195	0.0%
	Other Retailing	1,877	0.1%
	Department Stores	147	0.0%
Non-Retail	Residential	1,493,361	68.1%
	Commercial	516,365	23.5%
	Industrial	-	0.0%
	Health & Education	68,313	3.1%
	Community	103,123	4.7%
	Total	**2,193,278**	**100.0%**

Source: SGS Economics and Planning, 2019

The Health Care and Social Assistance Industry is projected to grow significantly into the future, with an additional +1,429 jobs over the 20 years between 2016 and 2036. Professional, Scientific and Technical Services (+626), Education and Training (+285) and Accommodation and Food Services (+202) are all projected to grow as Industries within Frenchs Forest.

Employment by BICs reflects the growing presence of the Health and Education industry in Frenchs Forest, projected to grow significantly more than other industries. Knowledge Intensive is also projected for substantial growth.

TABLE 31: FRENCHS FOREST EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

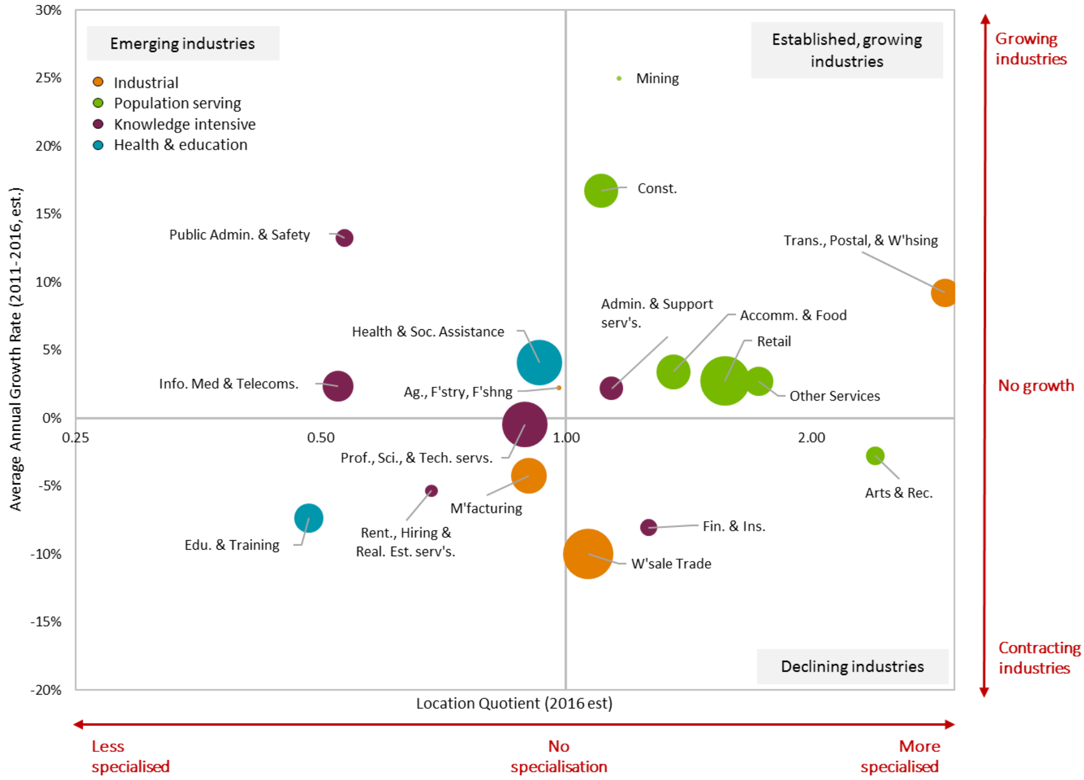
BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	2,657	3,452	796	30%
Health and Education	1,820	3,534	1,714	94%
Population Serving	3,814	**4,458**	644	17%
Industrial	2,500	2,236	-263	-11%

Source: TZP2016 v1.51 (TPA)

Transport, Postal and Warehousing in Frenchs Forest's most specialised industry. While Professional, Scientific and Technical Services are one of the largest industries in Frenchs Forest, it is not specialised compared to the Northern District (with an LQ below 1).

Frenchs Forest has some specialisation in population serving industries such as Accommodation and Food Services, Retail Trade, and Other Services, however, they all have an LQ below 2 (meaning they do not reach 'double' the shares seen in the Northern District, but still contain a higher proportion comparatively).

FIGURE 31: LOCATION QUOTIENT OF FRENCHS FOREST COMPARED TO THE NORTH DISTRICT



Source: SGS 2019 using ABS Census TableBuilder (2011, 16)

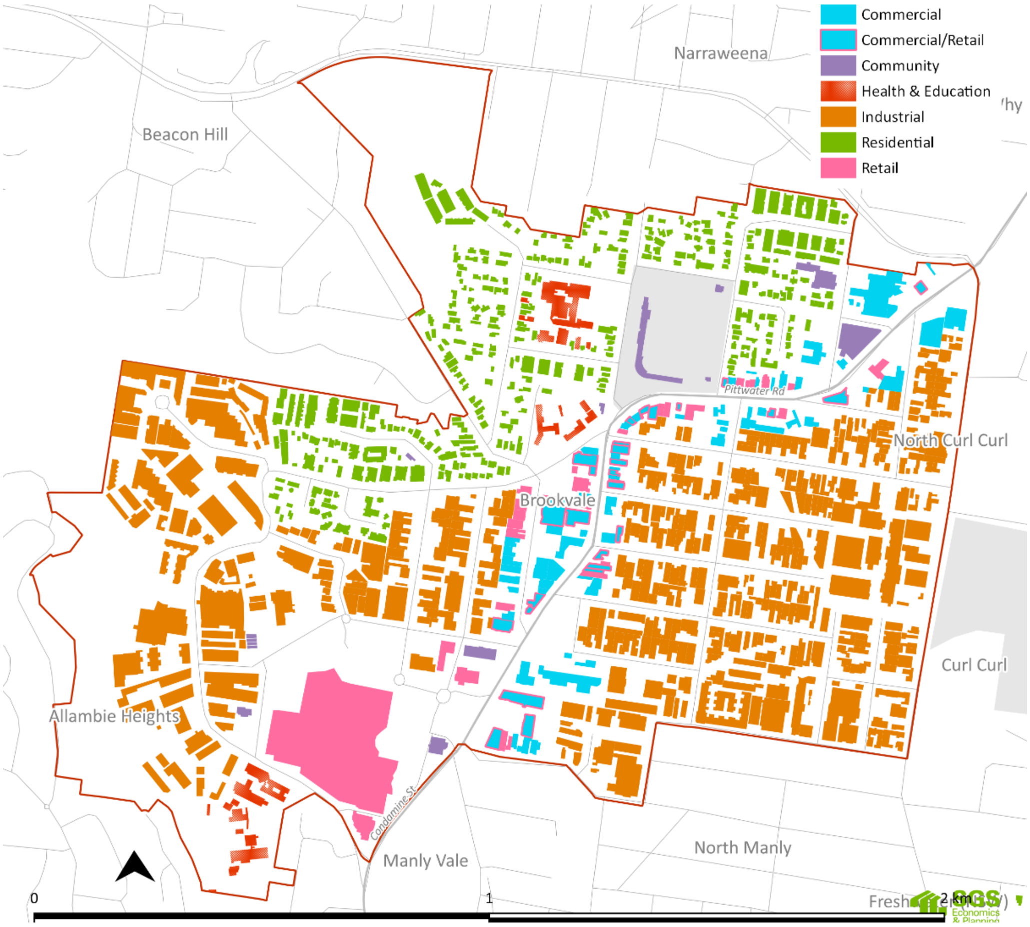
FIGURE 32: IMAGE OF NORTHERN BEACHES HOSPITAL

Source: NSW Health Infrastructure (https://www.hinfra.health.nsw.gov.au/our-projects/project-search/northern-beaches-hospital)

Brookvale

Brookvale is a unique centre that encompasses residential, commercial, retail and industrial land uses. A number of industrial and urban service businesses are located both east and west of Pittwater Road, providing significant employment and supply chain opportunities and also contributing to the functionality of the Northern Beaches and Greater Sydney. Industrial land uses in the centre are mainly traditional (such as plumbing, car and electronic repair) but there is also a presence of some modern industrial uses, such as breweries. Warringah Mall acts as a centre of gravity for the local population with its provision of high end, population servicing retail uses. Along Pittwater Road, are a number of commercial and retail uses such as car show rooms, real estate agents and homeware supply businesses. The thoroughfare has a low level of amenity. Low-density residential tends to surround the centre.

FIGURE 33: BROOKVALE LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

TABLE 32: BROOKVALE LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	12,799	1.4%
	Other Food	2,210	0.2%
	Clothing	35,405	3.8%
	Hospitality	5,237	0.6%
	Household goods	17,793	1.9%
	Other Retailing	14,307	1.5%
	Department Stores	43,363	4.7%

Non-Retail	Residential	157,946	17.0%
	Commercial	182,062	19.5%
	Industrial	342,989	36.8%
	Health & Education	75,749	8.1%
	Community	41,796	4.5%
	Total	**931,656**	**100.0%**

Source: SGS Economics and Planning, 2019

Brookvale's largest industry by 2036 will be Retail Trade (3,903 jobs), significantly higher than any other industry. This was also the case in 2016. Furthermore, the Professional, Scientific and Technical Services Industry is projected to grow significantly more than any other industry into the future, with an additional +646 jobs over the 20 years between 2016 and 2036. Other Services (+368), Education and Training (+308) and Public Administration and Safety (+214) are also projected for comparatively higher growth into the future.

Manufacturing is expected to drop significantly into the future, losing -707 jobs in the 20 years between 2016 and 2036. Employment by BICs reflects the growing presence of the Knowledge Intensive industry in Brookvale, closely followed by the Population Serving Sector. Industrial is projected to decline significantly.

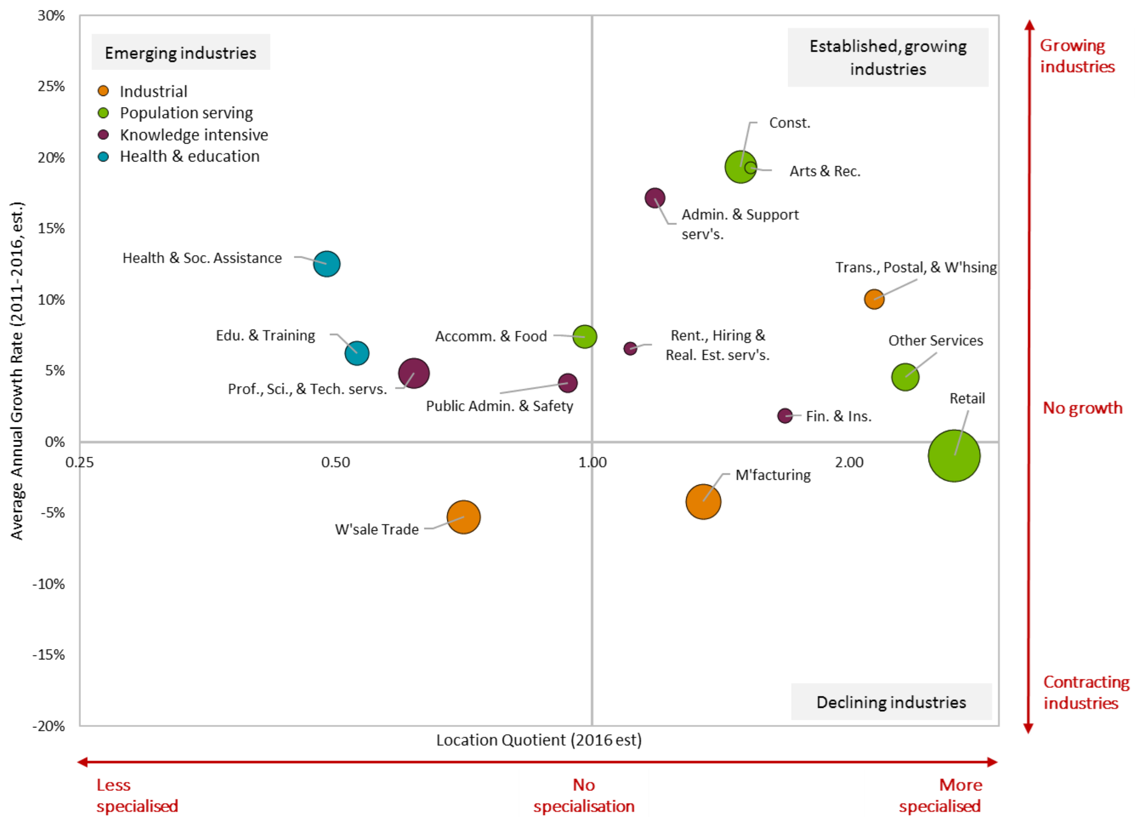
TABLE 33: BROOKVALE EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	3,228	4,231	1,003	31%
Health and Education	1,627	2,059	432	27%
Population Serving	7,108	**8,080**	972	14%
Industrial	4,508	3,839	-669	-15%

Source: TZP2016 v1.51 (TPA)

Brookvale is largely specialised in Retail Trade. It is also one of its largest industries. Other Services is also specialised, but as a comparatively smaller industry. The Knowledge Intensive industries of Brookvale are a mix of specialised and unspecialised. Professional, Scientific and Technical Services is the largest Knowledge Intensive industry; however, it is not specialised compared to the North District. Financial and Insurance Services has an approx. LQ of 1.7, however, the industry presence in Brookvale is small.

FIGURE 34: LOCATION QUOTIENT OF BROOKVALE COMPARED TO THE NORTH DISTRICT



Source: SGS 2019 using ABS Census TableBuilder (2011, 16)

Dee Why

Dee Why is a residential suburb of walk-up apartments supported by a commercial spine running along Pittwater Road containing a range of employment uses.

Dee Why is a largely population-serving centre, with no real drawcard from an employment specialisation perspective compared to the rest of the Northern Beaches or wider Greater Sydney. It extends beyond and north of Brookvale along Pittwater Road and contains a range of local businesses that service the local area such as cafes and restaurants, pharmacies, gyms, banks, and supermarkets amongst others.

Its character is typical of main street retail, however, the Meriton apartment developments make the eastern side of Dee Why appear significantly more dense from a built environment perspective. There are also some commercial office floors above main street retail in Dee Why, particularly near the intersection of Pittwater Road and Sturdee Parade.

Dee Why has a suburban structure that since the latter half of the twentieth century has seen increasing residential density and, more recently, a mixing of uses in large, planned, centre developments. These mixed-use centre developments are inwards looking and situated behind the main arterial road, where the majority of the remaining commercial and civic floorspace is located, contiguous with the industrial precinct in Brookvale. A short strip of hospitality uses is located along The Strand at Dee Why beach. Medium density residential flat buildings on long, narrow lots can be found in the first two blocks east and west of Pittwater Road; dwelling houses are spread throughout the rest of the precinct.

FIGURE 35: DEE WHY LAND USE OVERVIEW

Source: SGS Economics and Planning, 2019

TABLE 34: DEE WHY LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	5,595	0.3%
	Other Food	2,524	0.1%
	Clothing	1,679	0.1%
	Hospitality	14,004	0.7%
	Household goods	8,490	0.5%
	Other Retailing	3,303	0.2%
	Department Stores	212	0.0%
Non-Retail	Residential	1,442,255	77.1%
	Commercial	259,894	13.9%
	Industrial	6,106	0.3%
	Health & Education	65,273	3.5%
	Community	62,180	3.3%
	Total	**1,871,515**	**100.0%**

Source: SGS Economics and Planning, 2019

Dee Why's largest industry by 2036 will be Health Care and Social Assistance (1,197 jobs), closely followed by Accommodation and Food Services (1,049). Furthermore, the Public Administration and Safety (+297 jobs) Professional, Scientific and Technical Services (+282), and Education and Training (+266) are projected to grow the most into the future.

Manufacturing is expected to drop into the future, losing -39 jobs in the 20 years between 2016 and 2036.

Employment by BICs reflects the growing presence of the Knowledge Intensive industry in Dee Why, closely followed by the Population Serving Sector and Health and Education. Industrial is projected to decline.

TABLE 35: DEE WHY EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	1,966	**2,666**	702	36%
Health and Education	1,676	2,085	410	24%
Population Serving	2,571	3,051	481	19%
Industrial	315	263	-49	-16%

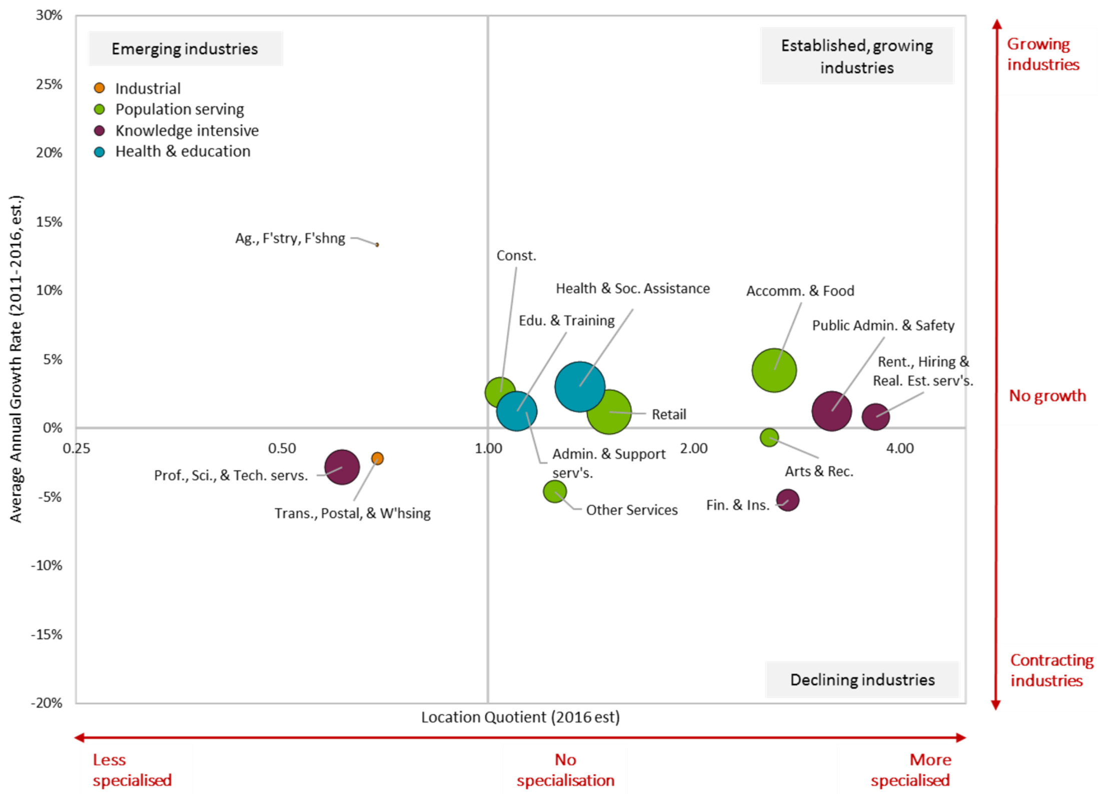
Source: TZP2016 v1.51 (TPA)

Dee Why has a number of specialisations ranging between an LQ of 1 and 4, however, caution must be taken in drawing out any industry as a clear specialisation compared to the Northern District. For example, the high specialisation of Rental, Hiring and Real Estate Services is likely related to recent growth and development of apartments in Dee Why. The specialisation of Pubic Admin. and Safety would be related to the presence of Council in the suburb.

Accommodation and Food Services is one of its largest industries and is specialised with an LQ of over 2. This means that its share is over double that of the Northern District average.

While Professional, Scientific and Technical Services is a large industry in terms of Knowledge Intensive industries, it is not as specialised compared to the North District.

FIGURE 36: LOCATION QUOTIENT OF DEE WHY COMPARED TO THE NORTH DISTRICT



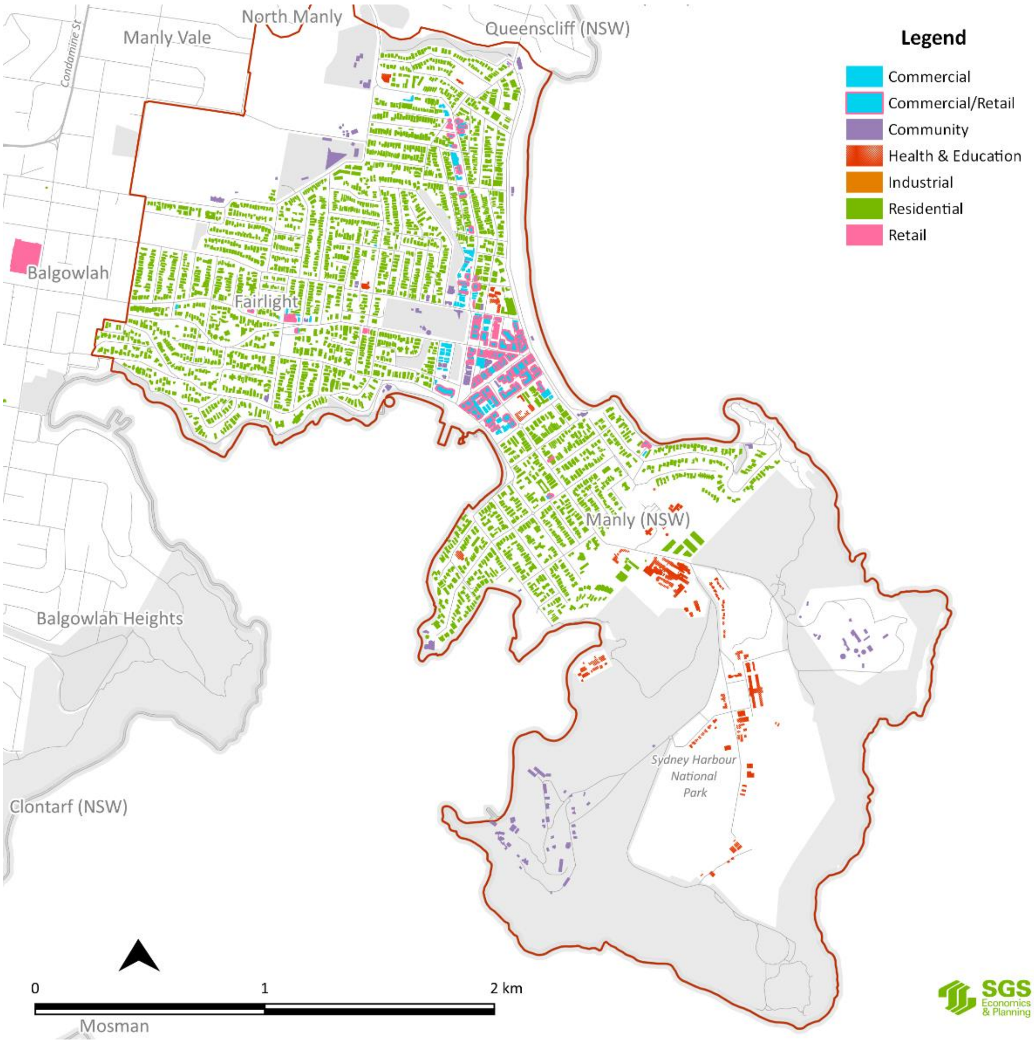
Source: SGS 2019 using ABS Census TableBuilder (2011, 16)

Manly

Manly is one of the largest centres of the Northern Beaches and is a hotspot for retail employment and tourism with its vibrant environment. Manly Beach attracts a variety of people from across Sydney, including visitors domestic and international, to the local area.

While Manly is an attractive precinct, future employment generation is constrained by its existing urban typology, proximity to the foreshore area and Manly Beach, which act as natural boundaries to future development. Manly functions well and is a cohesive precinct. There is a collection of cafés and restaurants close to Manly Beach, while the business strips perpendicular to Manly Wharf have a greater presence of knowledge intensive uses.

FIGURE 37: MANLY LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

TABLE 36: MANLY LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	827	0.0%
	Other Food	2,619	0.1%
	Clothing	3,548	0.1%
	Hospitality	11,460	0.4%
	Household goods	2,917	0.1%
	Other Retailing	4,762	0.2%
	Department Stores	566	0.0%
Non-Retail	Residential	1,949,649	73.1%
	Commercial	255,780	9.6%
	Industrial	-	0.0%
	Health & Education	250,751	9.4%
	Community	185,879	7.0%
	Total	2,668,758	100.0%

Source: SGS Economics and Planning, 2019

Manly's largest industry by 2036 will be Health Care and Social Assistance (2,470 jobs), closely followed by Accommodation and Food Services (2,209) and Professional, Scientific and Technical Services (2,084 jobs). Education and Training will also be a significant employer (1,236 jobs). Manufacturing, Transport Postal and Warehousing and Administrative and Support Services are expected to drop into the future, losing -122 jobs between them in the 20 years between 2016 and 2036.

Employment by BICs reflects the growing presence of the Knowledge Intensive and Health and Education Industry in Manly. However, the Population Serving sector will still be the largest industry in Manly by 2036.

TABLE 37: MANLY EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	2,973	3,963	995	33%
Health and Education	2,839	3,705	868	31%
Population Serving	3,803	**4,489**	683	18%
Industrial	375	367	-10	-3%

Source: TZP2016 v1.51 (TPA)

In terms of international tourism, Manly accounts for a quarter of all international visitors to NSW. The top three visitor markets to Manly in the Year that Ended December 2018 were the United Kingdom (16%), USA (14%) and China (7%). Popular activities while in Australia included: ate out at restaurants and cafes (96%), went to the beach (90%), went sightseeing (87%), went shopping for pleasure (82%) and visited national/state parks (66%).

Furthermore, Manly accounts for 3% of all domestic visitors to NSW. They mainly travelled to visit friends and relatives (42%). Their top activities were eating out at restaurants (88%), visiting friends and relatives (55%), going to the beach (51%) and sightseeing (33%).

TABLE 38: TOTAL VISITORS TO MANLY (DOMESTIC AND INTERNATIONAL)

	YE March 2015	YE March 2016	YE March 2017	YE March 2018	4 Year Average
Visitors staying overnight in Manly (000)	161.1	177.1	273.7	205.0	204.2
Domestic day visitors (000)	520.9	500.4	372.4	592.9	496.7
*Total visitors to Manly (000)**	2,164.5	2,256.4	2,308.0	2,566.4	2,323.8

Source: Destination NSW

*Total visitors include those who stayed overnight elsewhere but visited Manly

Manly is largely specialised in Accommodation and Food Services. It is also a growing industry. Other specialisations are smaller industries including Arts and Recreation Services, Rental, Hiring and Real Estate Services and Financial and Insurance Services. Health Care and Social Assistance is one of its largest industries, with an LQ of just below 2.

The share of Retail Trade, Professional, Scientific and Technical Services and Education and Training in Manly are similar to the North District average.

FIGURE 38: LOCATION QUOTIENT OF MANLY COMPARED TO THE NORTH DISTRICT

Source: SGS 2019 using ABS Census TableBuilder (2011, 16)

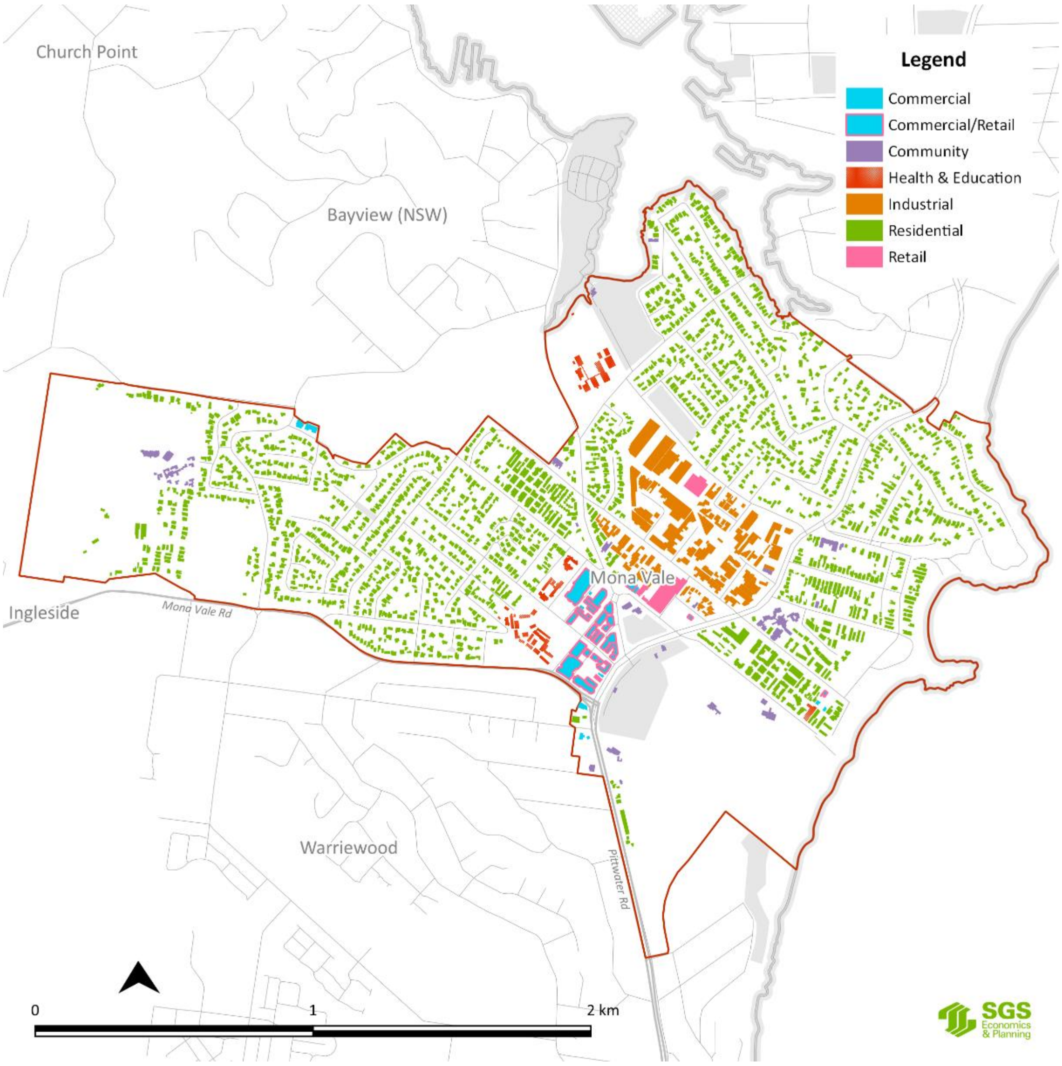
Mona Vale

Mona Vale is a centre containing 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.

Pittwater Road contains the majority of the smaller-scale businesses suitable for high streets, with a greater mix in the roads adjacent to it. It is a largely population-serving centre characterised by a main street retail strip and surrounded by small-to-medium industrial facilities. The industrial facilities contain a mix of businesses; including offices, production, repair and storage. The industrial facilities appear to be light manufacturing or urban services. There is one stand-alone commercial facility, containing largely health care businesses.

In terms of economic contribution, Retail Trade contributes the most in GVA ($33.08m), followed by Financial and Insurance Services ($28.55m) and Public Administration and Safety ($28.29m). Overall, Mona Vale's IN2 Industrial land contributes $239.16m in GVA. This is slightly lower than the Northern Beaches average of $267.73m, and lower than the Greater Sydney average of $309.03m. 44% of Mona Vale's industrial land is surrounded by residential. This is slightly higher than the Northern Beaches average of 41%, and higher than the Greater Sydney average of 36%.

FIGURE 39: MONA VALE LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

TABLE 39: MONA VALE LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	6,605	0.7%
	Other Food	2,676	0.3%
	Clothing	2,321	0.2%
	Hospitality	4,329	0.4%
	Household goods	8,175	0.8%
	Other Retailing	1,827	0.2%
	Department Stores	87	0.0%
Non-Retail	Residential	664,619	67.6%
	Commercial	102,341	10.4%
	Industrial	83,906	8.5%
	Health & Education	41,111	4.2%
	Community	65,559	6.7%
	Total	983,557	100.0%

Source: SGS Economics and Planning, 2019

Mona Vale's largest industry by 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). Manufacturing is expected to drop into the future, losing -133 jobs in the 20 years between 2016 and 2036.

Employment by BICs reflects the growing presence of the Population Serving sector, closely followed by Knowledge Intensive and Health and Education. Population Serving (2,859 jobs) is also expected to be the largest employment industry by 2036.

TABLE 40: 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: TZP2016 v1.51 (TPA)

Mona Vale is largely specialised in Other Services however, the industry is much smaller comparatively to the Retail Trade industry. There are a number of other Population Serving industries that are slightly more specialised than the North District in Mona Vale such as Accommodation and Food Services, and Arts and Recreation Services. All of these industries are also growing. Professional, Scientific and Technical Services is the largest Knowledge Intensive industry in Mona Vale however, it is not specialised compared to the North District.

FIGURE 40: LOCATION QUOTIENT OF MONA VALE COMPARED TO THE NORTH DISTRICT

Source: SGS 2019 using ABS Census TableBuilder (2011, 16)

5.3 Local centres

Avalon

Avalon is a local beach suburb of predominantly detached housing serviced by a retail strip along Old Barrenjoey Road. The businesses located on the strip are diverse, and include a cinema, restaurants, gyms, supermarkets, and an RSL club.

FIGURE 41: AVALON LAND USE

Source: SGS Economics and Planning, 2019

TABLE 41: AVALON LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	163	0.1%
	Other Food	698	0.2%
	Clothing	1,833	0.6%
	Hospitality	3,582	1.2%
	Household goods	1,689	0.6%
	Other Retailing	1,263	0.4%
	Department Stores	-	0.0%
Non-Retail	Residential	201,819	70.1%
	Commercial	35,637	12.4%
	Industrial	-	0.0%
	Health & Education	15,441	5.4%
	Community	25,865	9.0%
	Total	287,991	100.0%

Source: SGS Economics and Planning, 2019

Population Serving (1,000 jobs) is expected to be the largest employment industry by 2036, growing by +200 jobs. Knowledge Intensive (587 jobs) and Health and Education (450) are present but significantly lower comparatively to Population Serving.

TABLE 42: AVALON EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	425	587	162	38%
Health and Education	311	450	139	45%
Population Serving	799	**1,000**	200	25%
Industrial	88	69	-20	-23%

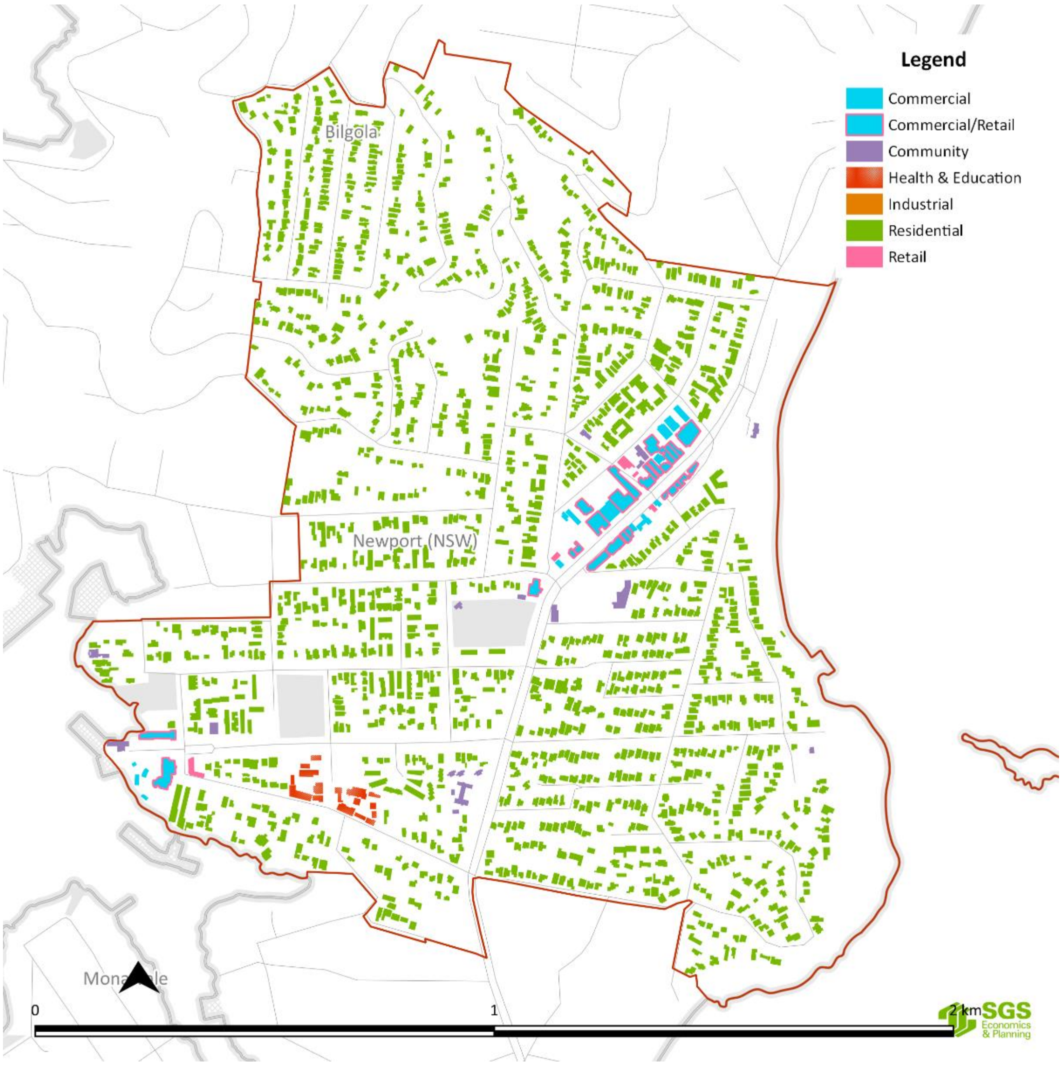
Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in Avalon, many of the jobs there are Architectural Services (69 jobs), followed by Computer System Design and Related Services (62) and Accounting Services (52).

Newport

Newport is a local beach suburb of detached housing serviced by range of retail and services along Barrenjoey Road. There are a number of cafes, bars and restaurants as well as a Coles, Australia Post Office, and medical/dental/pharmaceutical centres.

FIGURE 42: NEWPORT LAND USE



Source: SGS Economics and Planning, 2019

TABLE 43: NEWPORT LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	720	0.1%
	Other Food	849	0.1%
	Clothing	1,035	0.1%
	Hospitality	4,841	0.6%
	Household goods	821	0.1%
	Other Retailing	1,789	0.2%
	Department Stores	-	0.0%
Non-Retail	Residential	776,822	90.2%
	Commercial	48,944	5.7%
	Industrial	-	0.0%
	Health & Education	9,437	1.1%
	Community	16,145	1.9%
	Total	861,402	100.0%

Source: SGS Economics and Planning, 2019

Newport's largest industry by 2036 will be Professional, Scientific and Technical Services (522 jobs), followed by Accommodation and Food Services (383 jobs) and Education and Training (252 jobs). Professional, Scientific and Technical Services is also projected to grow the most (+190 jobs) over the 20 years between 2016 and 2036, followed by Education and Training (+92 jobs) and Accommodation and Food Services (+88 jobs).

Population Serving (1,021 jobs) is expected to be the largest employment industry by 2036, growing by +210 jobs. Knowledge Intensive (757 jobs) and Health and Education (451) are present but lower comparatively to Population Serving.

TABLE 44: NEWPORT EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	534	757	223	42%
Health and Education	307	451	144	47%
Population Serving	810	**1,021**	210	26%
Industrial	122	100	-21	-17%

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in Newport, many of the jobs there are Computer System Design and Related Services (79), followed by Accounting Services (42) and Management Advice and Related Consulting Services (42).

TABLE 45: NEWPORT BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

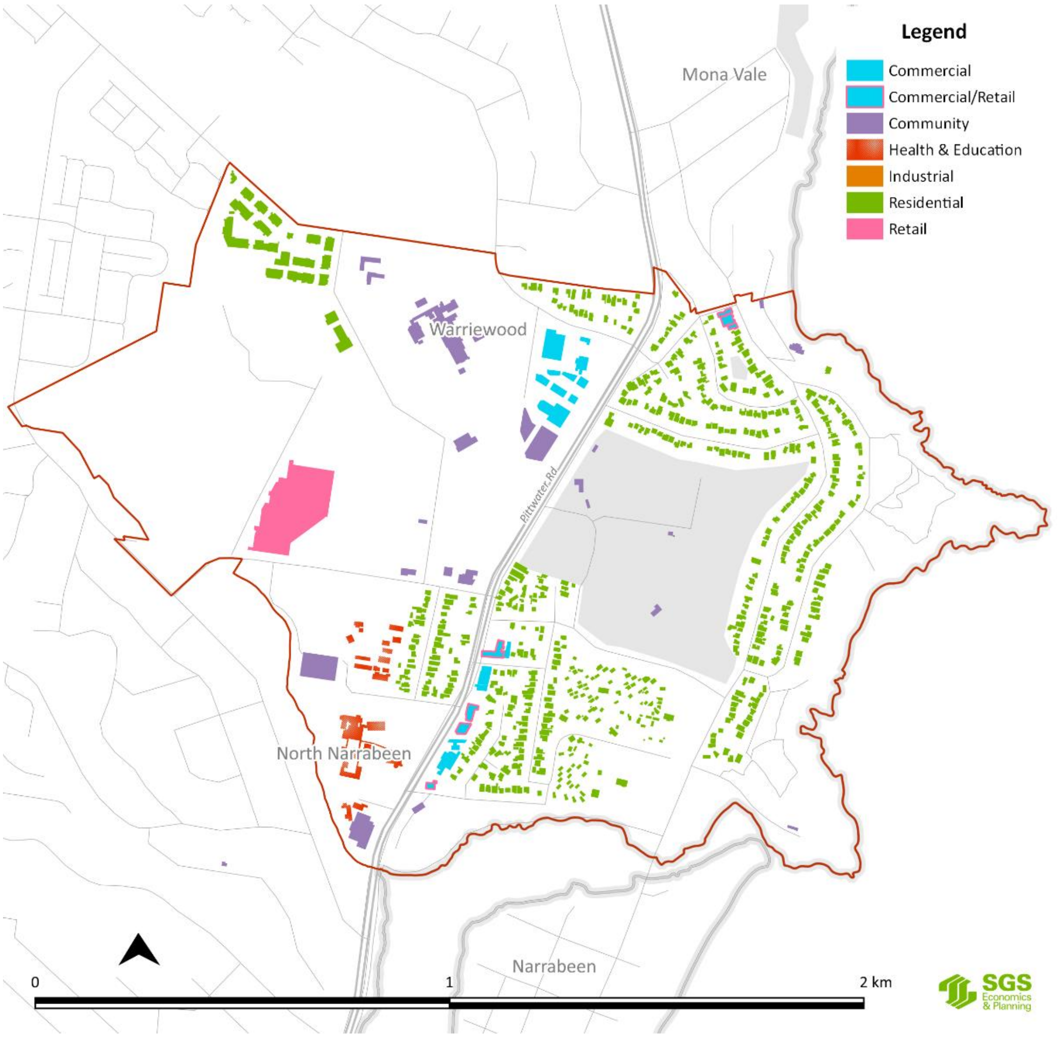
4-digit ANZSIC Employment	2016 Jobs
Computer System Design and Related Services	79
Accounting Services	42
Management Advice and Related Consulting Services	42
Other Specialised Design Services	41
Advertising Services	41
Architectural Services	34

Source: ABS Census TableBuilder (2016)

Warriewood Activity Centre

The distribution of employment land in the suburb of Warriewood is unique. The Warriewood Activity Centre is made up of two separated areas of activity which both contain important uses for the local community. Warriewood Square, a major shopping precinct, occupies the majority of an activity centre.

FIGURE 43: WARRIEWOOD ACTIVITY CENTRE LAND USE



Source: SGS Economics and Planning, 2019

TABLE 46: WARRIEWOOD ACTIVITY CENTRE LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	8,719	2.2%
	Other Food	497	0.1%
	Clothing	4,548	1.1%
	Hospitality	1,048	0.3%
	Household goods	1,002	0.3%
	Other Retailing	5,950	1.5%
	Department Stores	7,435	1.9%
Non-Retail	Residential	189,425	47.4%
	Commercial	59,673	14.9%
	Industrial	-	0.0%
	Health & Education	47,998	12.0%
	Community	73,022	18.3%
	Total	399,316	100.0%

Source: SGS Economics and Planning, 2019

The Warriewood Activity Centre's largest industry by 2036 will be Retail Trade (825 jobs), followed by Public Administration and Safety (383 jobs) and Education and Training (336 jobs) and Accommodation and Food Services (304 jobs)

Education and Training is also projected to grow the most (+123 jobs) over the 20 years between 2016 and 2036, followed by Retail Trade (+119 jobs) and Public Administration and Safety (+104 jobs).

Population Serving (1,635 jobs) is expected to be the largest employment industry by 2036, growing by +327 jobs. Knowledge Intensive (804 jobs) and Health and Education (541) are present but lower comparatively to Population Serving.

TABLE 47: WARRIEWOOD ACTIVITY CENTRE EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	597	804	207	35%
Health and Education	364	541	177	49%
Population Serving	1,307	**1,635**	327	25%
Industrial	280	217	-64	-23%

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in the Warriewood Activity Centre, many of the jobs there are Computer System Design and Related Services (79), followed by Accounting Services (42) and Management Advice and Related Consulting Services (42).

TABLE 48: WARRIEWOOD ACTIVITY CENTRE BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Computer System Design and Related Services	79
Accounting Services	42
Management Advice and Related Consulting Services	42
Other Specialised Design Services	41
Advertising Services	41
Architectural Services	34

Source: ABS Census TableBuilder (2016)

Narrabeen

Narrabeen is a local centre which has a much more diverse range of age groups comparatively to other local centres in the Northern Beaches. The retail hub has a Woolworths, a number of cafes and restaurants as well as other service-based uses. Narrabeen Beach makes this centre an attractive place to live.

FIGURE 44: NARRABEEN LAND USE OVERVIEW

Source: SGS Economics and Planning, 2019

TABLE 49: NARRABEEN LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	1,977	0.3%
	Other Food	1,787	0.3%
	Clothing	209	0.0%
	Hospitality	4,481	0.7%
	Household goods	2,752	0.5%
	Other Retailing	1,024	0.2%
	Department Stores	200	0.0%
Non-Retail	Residential	490,530	81.1%
	Commercial	72,531	12.0%
	Industrial	-	0.0%
	Health & Education	14,933	2.5%
	Community	14,763	2.4%
	Total	605,187	100.0%

Source: SGS Economics and Planning, 2019

Narrabeen's largest industry by 2036 will be Health Care and Social Assistance (377 jobs), closely followed by Professional, Scientific and Technical Services (363 jobs), Retail Trade (360 jobs) and Accommodation and Food Services (354 jobs).

Professional, Scientific and Technical Services is also projected to grow the most (+121 jobs) over the 20 years between 2016 and 2036, followed by Accommodation and Food Services (+81 jobs) and Health Care and Social Assistance (+57 jobs). Public Administration and Safety is expecting the largest % increase in 2036 compared to 2016 job levels (+53%), followed by Arts and Recreation Services (+51%).

Population Serving (1,250 jobs) is expected to be the largest employment industry by 2036, growing by +327 jobs. Knowledge Intensive (677 jobs) and Health and Education (545) are present but lower comparatively to Population Serving.

TABLE 50: NARRABEEN EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	498	677	179	36%
Health and Education	434	545	111	26%
Population Serving	1,046	**1,250**	205	20%
Industrial	85	70	-16	-19%

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in Narrabeen, many of the jobs there are Accounting Services (59 jobs), Computer System Design and Related Services (39 jobs) and Management Advice and Related Consulting Services (18 jobs).

TABLE 51: NARRABEEN BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

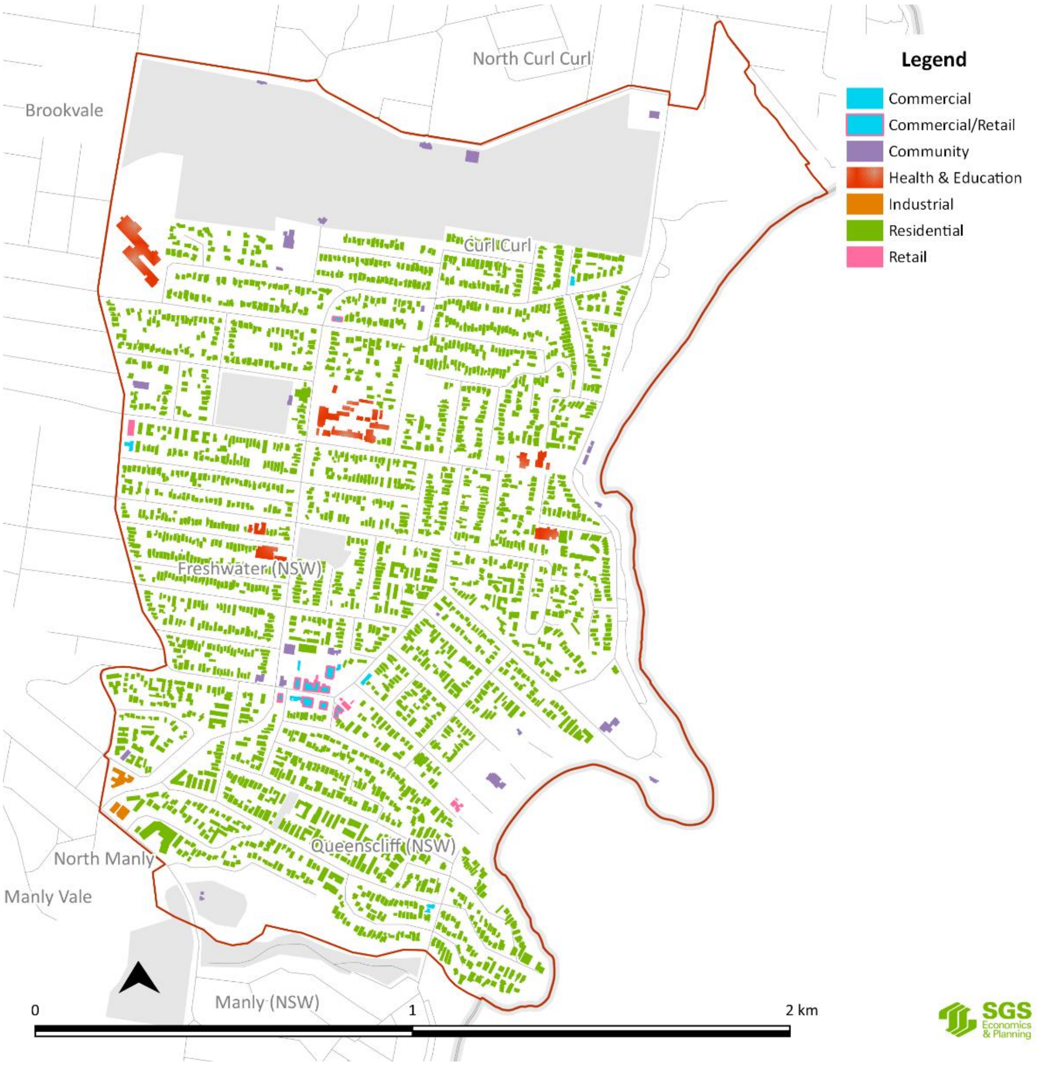
4-digit ANZSIC Employment	2016 Jobs
Accounting Services	59
Computer System Design and Related Services	39
Management Advice and Related Consulting Services	18
Professional Photographic Services	18
Legal Services	16
Architectural Services	15

Source: ABS Census TableBuilder (2016)

Freshwater

Freshwater is a local centre known for its attractive beach lifestyle. Its retail strip is approximately 400m from the shore of the beach. It contains a number of bars, cafes and restaurants, as well as other population-serving uses such as medical centres, clothing and accessories, and fitness studios.

FIGURE 45: FRESHWATER LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

TABLE 52: FRESHWATER LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	-	0.0%
	Other Food	666	0.1%
	Clothing	726	0.1%
	Hospitality	669	0.1%
	Household goods	378	0.0%
	Other Retailing	683	0.1%
	Department Stores	-	0.0%
Non-Retail	Residential	795,536	88.1%
	Commercial	12,425	1.4%
	Industrial	2,314	0.3%
	Health & Education	55,979	6.2%
	Community	33,600	3.7%
	Total	902,975	100.0%

Source: SGS Economics and Planning, 2019

Freshwater's largest industry by 2036 will be Professional, Scientific and Technical Services (306 jobs), followed by Accommodation and Food Services (259 jobs) and Education and Training (239 jobs).

Professional, Scientific and Technical Services is also projected to grow the most (+97 jobs) over the 20 years between 2016 and 2036, followed by Education and Training (+71 jobs) and Accommodation and Food Services (+58 jobs). Public Administration and Safety is expecting the largest % increase in 2036 compared to 2016 job levels (+54%).

Population Serving (798 jobs) is expected to be the largest employment industry by 2036, growing by +129 jobs. Knowledge Intensive (539 jobs) and Health and Education (374 jobs) are present but lower comparatively to Population Serving.

TABLE 53: FRESHWATER EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	405	529	124	31%
Health and Education	286	374	88	31%
Population Serving	669	**798**	129	19%
Industrial	71	62	-10	-14%

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in Freshwater, many of the jobs there are Computer System Design and Related Services (60 jobs), followed by Management Advice and Related Consulting Services (48 jobs), and Accounting Services (32 jobs).

TABLE 54: FRESHWATER BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

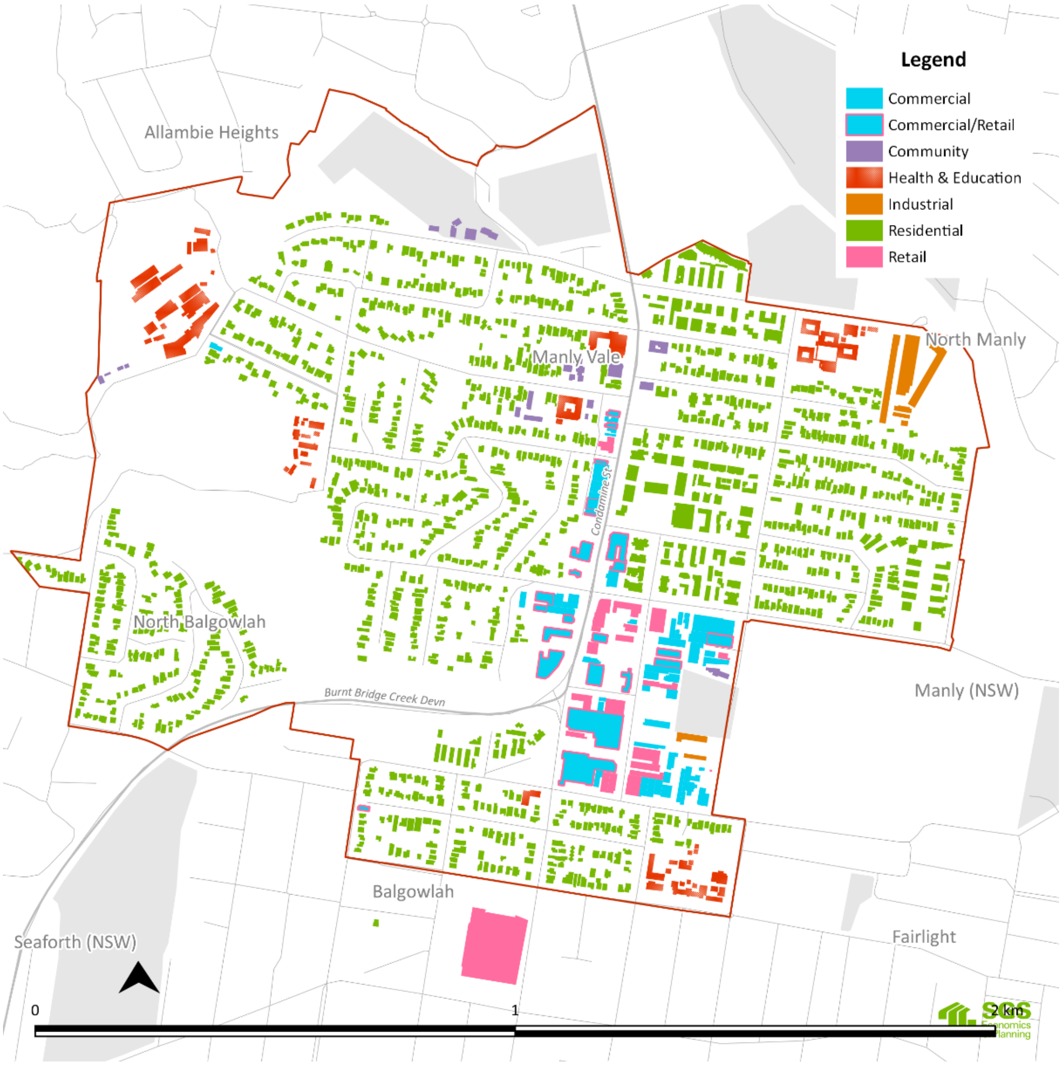
4-digit ANZSIC Employment	2016 Jobs
Computer System Design and Related Services	60
Management Advice and Related Consulting Services	48
Accounting Services	32
Other Specialised Design Services	31
Architectural Services	22
Legal Services	18

Source: ABS Census TableBuilder (2016)

Manly Vale

Manly Vale is an inland local centre of the Northern Beaches which contains a number of large-format employment buildings, in addition to small-scale retail and services. The neighbourhood is predominantly detached houses.

FIGURE 46: MANLY VALE LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

TABLE 55: MANLY VALE LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	948	0.2%
	Other Food	592	0.1%
	Clothing	348	0.1%
	Hospitality	5,415	0.9%
	Household goods	12,377	2.1%
	Other Retailing	1,403	0.2%
	Department Stores	3,138	0.5%
Non-Retail	Residential	403,876	67.4%
	Commercial	70,462	11.8%
	Industrial	7,884	1.3%
	Health & Education	81,130	13.5%
	Community	12,011	2.0%
	Total	**599,581**	**100.0%**

Source: SGS Economics and Planning, 2019

Manly Vale's largest industry by 2036 will be Retail Trade (714 jobs), followed by Education and Training (583 jobs), Professional, Scientific and Technical Services (513 jobs) and Construction (392 jobs). Education and Training is also projected to grow the most (+177 jobs) over the 20 years between 2016 and 2036, followed by Professional, Scientific and Technical Services (+167 jobs) and Retail Trade (+53 jobs).

Professional, Scientific and Technical Services is expecting the largest % increase in 2036 compared to 2016 job levels (+48%), while Manufacturing will have the least (-37%).

Population Serving (1,472 jobs) is still expected to be the largest employment industry by 2036, growing by +171 jobs. However, Knowledge Intensive and Health and Education are expecting the largest increases in employment over the 20 years between 2016 and 2036 (+249 and +228 jobs respectively).

TABLE 56: MANLY VALE EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	748	997	249	33%
Health and Education	725	952	228	31%
Population Serving	1,301	**1,472**	171	13%
Industrial	405	327	-80	-20%

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in Manly Vale, many of the jobs there are Computer System Design and Related Services (39 jobs), followed by Accounting Services (38 jobs), Management Advice and Related Consulting Services (30 jobs), and Other Specialised Design Services (28 jobs).

TABLE 57: MANLY VALE BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

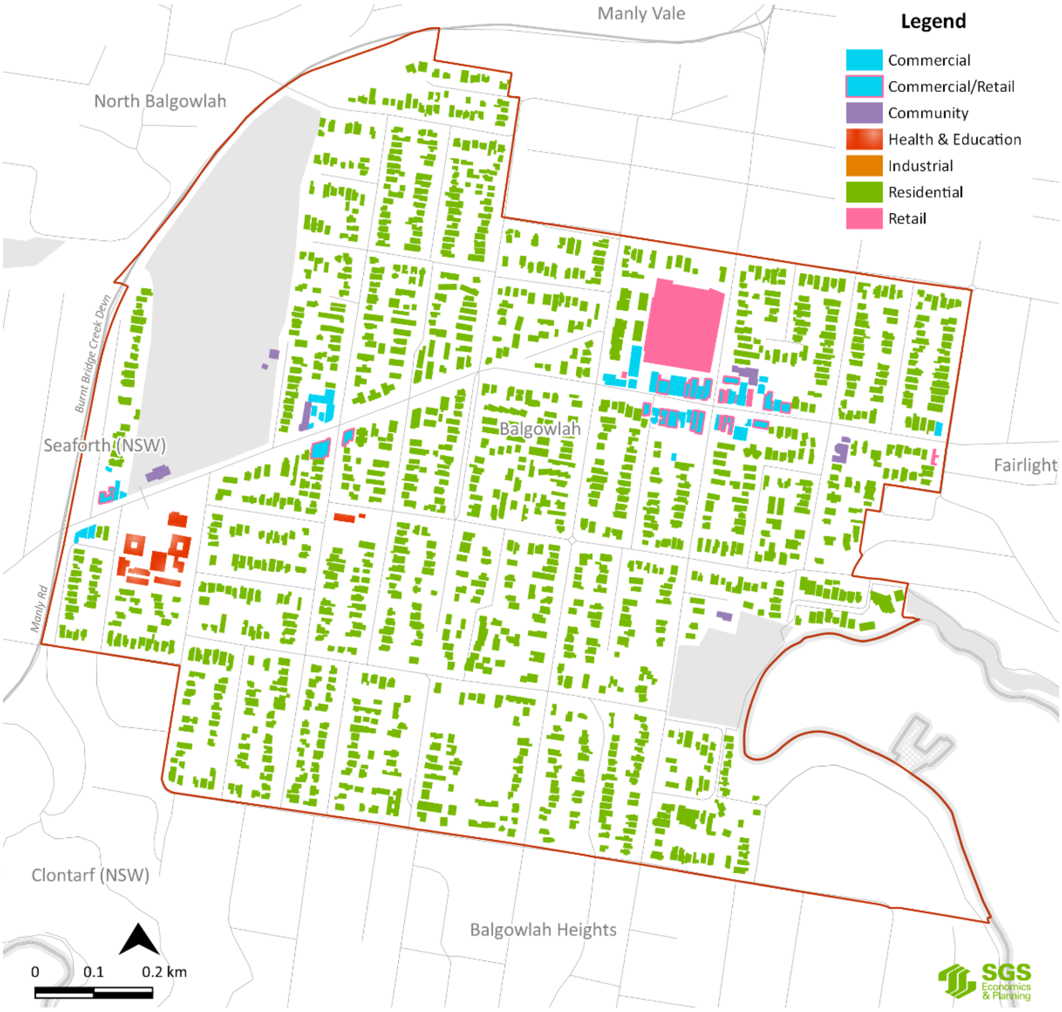
4-digit ANZSIC Employment	2016 Jobs
Computer System Design and Related Services	39
Accounting Services	38
Management Advice and Related Consulting Services	30
Other Specialised Design Services	28
Engineering Design and Engineering Consulting Services	23
Advertising Services	15

Source: ABS Census TableBuilder (2016)

Balgowlah

Balgowlah is an inherently local population-serving centre anchored by the Stockland Shopping Centre and a retail strip along Sydney Road.

FIGURE 47: BALGOWLAH LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

TABLE 58: BALGOWLAH LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	5,572	0.8%
	Other Food	1,350	0.2%
	Clothing	1,583	0.2%
	Hospitality	3,296	0.5%
	Household goods	2,595	0.4%
	Other Retailing	1,255	0.2%
	Department Stores	-	0.0%
Non-Retail	Residential	582,408	85.2%
	Commercial	49,391	7.2%
	Industrial	-	0.0%
	Health & Education	27,310	4.0%
	Community	8,759	1.3%
	Total	683,517	100.0%

Source: SGS Economics and Planning, 2019

Balgowlah's largest industry by 2036 will be Retail Trade (549 jobs), followed by Health Care and Social Assistance (424 jobs) and Professional, Scientific and Technical Services (346 jobs). Professional, Scientific and Technical Services is also projected to grow the most (+118 jobs) over the 20 years between 2016 and 2036, followed by Health Care and Social Assistance (+83 jobs) and Education and Training (+72 jobs).

Population Serving (1,181 jobs) is still expected to be the largest employment industry by 2036, growing by +155 jobs. However, Knowledge Intensive and Health and Education are expecting similar increases in employment over the 20 years between 2016 and 2036 (+150 and +155 jobs respectively).

TABLE 59: BALGOWLAH EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	559	709	150	27%
Health and Education	501	656	155	31%
Population Serving	1,026	**1,181**	155	15%
Industrial	43	30	-13	-30%

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in Balgowlah, many of the jobs there are Management Advice and Related Consulting Services (30 jobs), Legal Services (21), Computer System Design and Related Services (21) and Accounting Services (18).

TABLE 60: BALGOWLAH BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

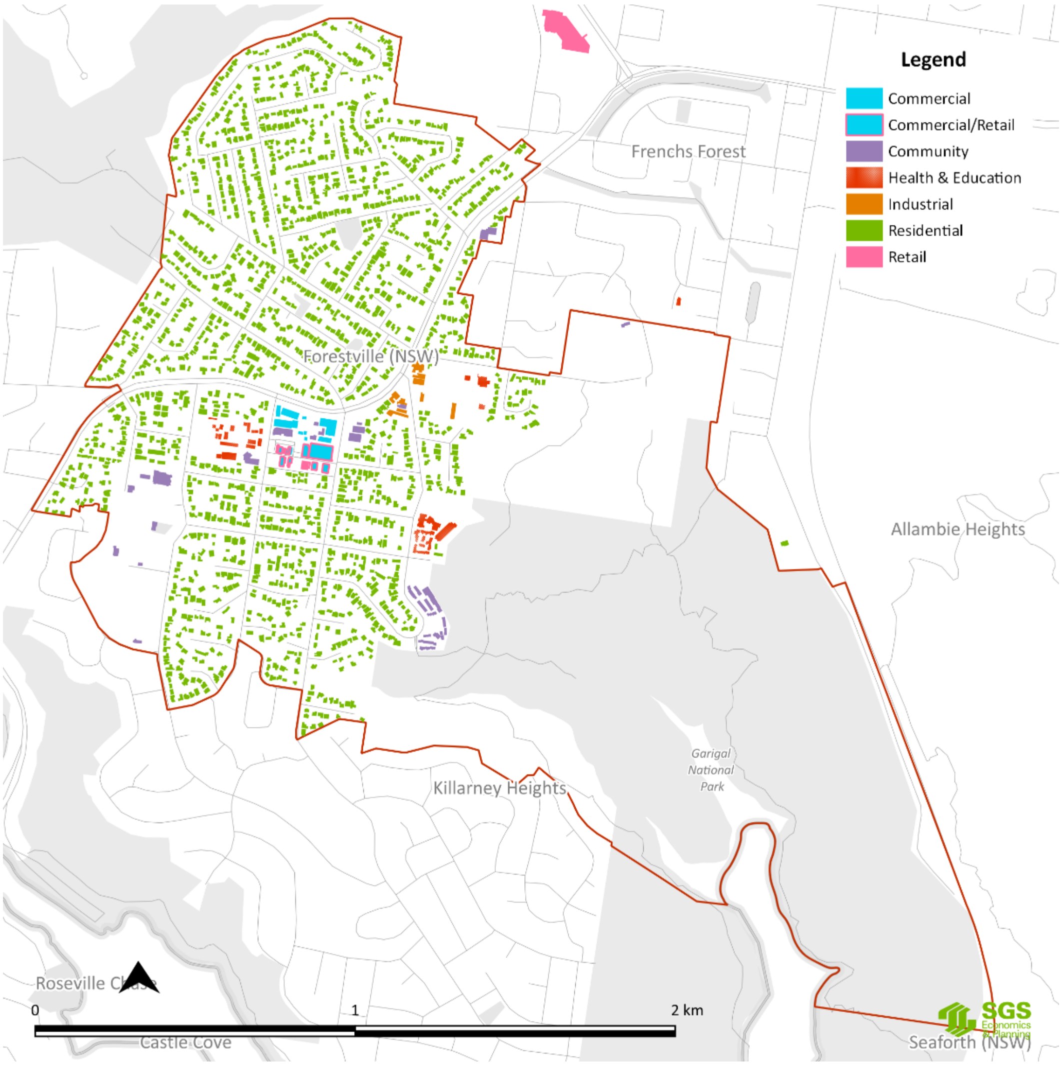
4-digit ANZSIC Employment	2016 Jobs
Management Advice and Related Consulting Services	30
Legal Services	21
Computer System Design and Related Services	21
Accounting Services	18
Architectural Services	11

Source: ABS Census TableBuilder (2016)

Forestville

Forestville is small-scale centre located below the major centre of Frenchs Forest. Its retail centre is anchored by 'The Centre' shopping mall which contains a major Coles supermarket, along with a number of cafes, restaurants and other retail uses along the Centre parade.

FIGURE 48: FORESTVILLE LAND USE OVERVIEW



Source: SGS Economics and Planning, 2019

TABLE 61: FORESTVILLE LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	1,464	0.3%
	Other Food	239	0.0%
	Clothing	101	0.0%
	Hospitality	1,254	0.2%
	Household goods	387	0.1%
	Other Retailing	1,386	0.3%
	Department Stores	78	0.0%
Non-Retail	Residential	408,533	81.3%
	Commercial	30,871	6.1%
	Industrial	6,703	1.3%
	Health & Education	24,847	4.9%
	Community	26,824	5.3%
	Total	**502,687**	**100.0%**

Source: SGS Economics and Planning, 2019

Forestville's largest industry by 2036 will be Education and Training (381 jobs), followed by Health Care and Social Assistance (358 jobs), Professional, Scientific and Technical Services (334 jobs) and Retail Trade (251 jobs). Education and Training is also projected to grow the most (+114 jobs) over the 20 years between 2016 and 2036, followed by Professional, Scientific and Technical Services (+105 jobs).

Public Administration and Safety is expecting the largest % increase in 2036 compared to 2016 job levels (+53%), while Manufacturing will have the least (-39%).

Employment across the four Broader Industries is unique to other small centres. Population Serving (774 jobs) and Health and Education (739 jobs) are the largest industries, followed by Knowledge Intensive (532 jobs). Health and Education is expected the most growth in total (+157 jobs), however, Knowledge Intensive is expecting the largest % increase by 2036 compared to 2016 job levels (+37%).

TABLE 62: FORESTVILLE EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	389	532	143	37%
Health and Education	582	**739**	157	27%
Population Serving	660	**774**	114	17%
Industrial	71	61	-11	-15%

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in Forestville, many of the jobs there are Accounting Services (42 jobs), followed by Computer System Design and Related Services (37), Legal Services (28) and Veterinary Services (20).

TABLE 63: FORESTVILLE BREAKDOWN PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Accounting Services	42
Computer System Design and Related Services	37
Legal Services	28
Veterinary Services	20
Engineering Design and Engineering Consulting Services	18

Source: ABS Census TableBuilder (2016)

In terms of the Education and Training industry in Forestville, many of the jobs are in Primary Education (120), Preschool Education (25) and Special School Education (25).

TABLE 64: FORESTVILLE BREAKDOWN EDUCATION AND TRAINING AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Primary Education	120
Preschool Education	25
Special School Education	25
Adult, Community and Other Education nec	21
Sports and Physical Recreation Instruction	19
Secondary Education	16

Source: ABS Census TableBuilder (2016)

Belrose

Belrose is functioning well with its mix of business types. The Belrose catchment contains Glenrose shopping village and surrounding residential areas. Belrose's largest industry by 2036 will be Retail Trade (282 jobs), followed by Health Care and Social Assistance (217 jobs) and Accommodation and Food Services (182 jobs).

Professional, Scientific and Technical Services is also projected to grow the most (+46 jobs) over the 20 years between 2016 and 2036, followed by Accommodation and Food Services (+41 jobs) and Education and Training (+34 jobs). Public Administration and Safety is expecting the largest % increase in 2036 compared to 2016 job levels (+51%), while Manufacturing will have the least (-30%).

Population Serving (732 jobs) is still expected to be the largest employment industry by 2036, growing by +109 jobs. Knowledge Intensive and Health and Education are expecting slightly lower increases in employment over the 20 years between 2016 and 2036 (+70 and +60 jobs respectively).

TABLE 65: BELROSE EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	215	284	70	33%
Health and Education	270	329	60	22%
Population Serving	623	**732**	109	17%
Industrial	46	37	-9	-20%

Source: TZP2016 v1.51 (TPA)

5.4 Business and industrial Parks

Warriewood Business Park

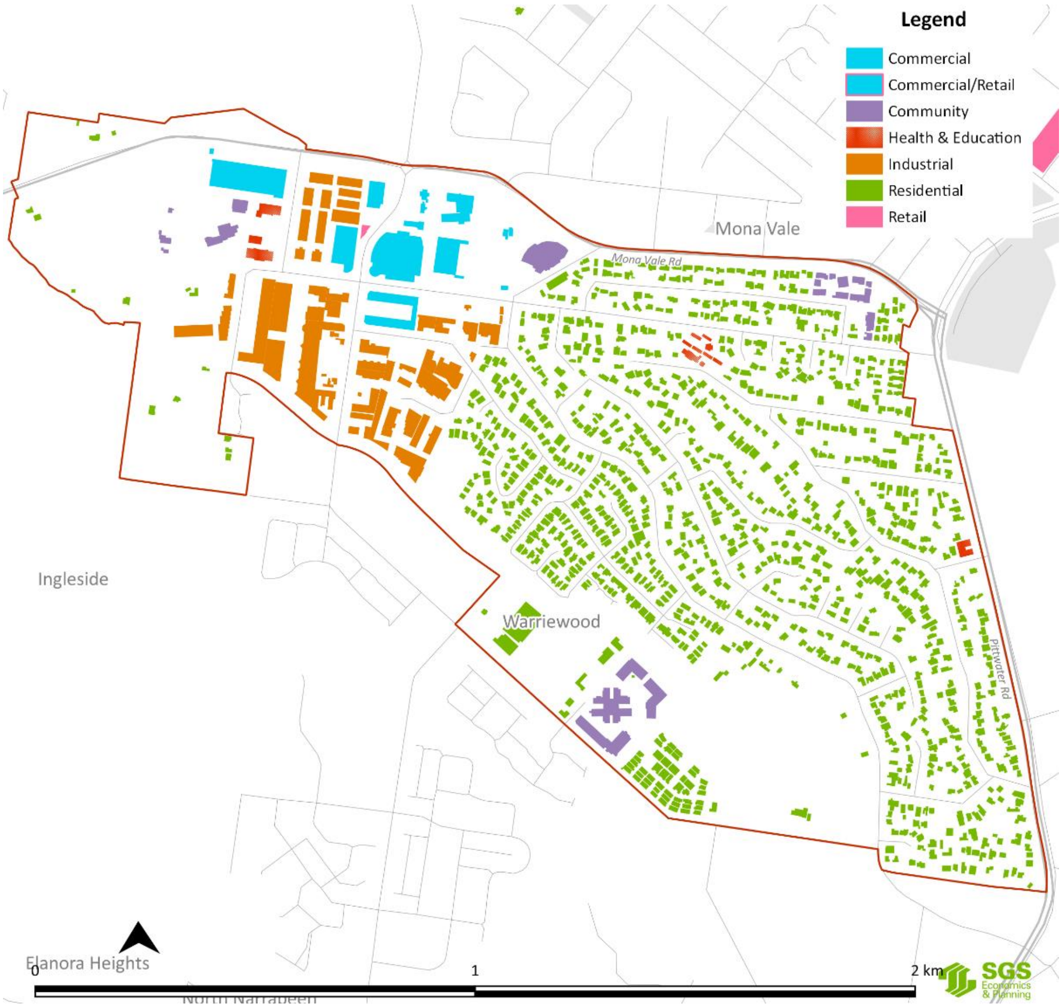
The Warriewood Business Park catchment contains a heavy business and industrial precinct. It contains a number of large-format employment uses, including medical and pharmaceutical product manufacturing businesses. There are also some large-format retail supply stores. IN2 land uses are indistinguishable from B7 uses.

Its economic contribution is largely derived from Manufacturing ($132.47m), Construction ($67.84m) and Wholesale Trade ($59.30m). Overall, Warriewood Valley contributes a total of $470.77m in GVA. This is significantly higher than both the Northern Beaches average ($267.73m) and Greater Sydney average ($309.03m).

24% of Warriewood Valley's industrial land is surrounded by residential uses within a 100m buffer. This is significantly lower than the Northern Beaches average (41%) and Greater Sydney (36%).

Land use overview

FIGURE 49: WARRIEWOOD BUSINESS PARK LAND USE



Source: SGS Economics and Planning, 2019

TABLE 66: WARRIEWOOD BUSINESS PARK LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	-	0.0%
	Other Food	-	0.0%
	Clothing	-	0.0%
	Hospitality	2,023	0.3%
	Household goods	1,012	0.2%
	Other Retailing	-	0.0%
	Department Stores	-	0.0%
Non-Retail	Residential	342,444	56.0%
	Commercial	123,030	20.1%
	Industrial	56,423	9.2%
	Health & Education	16,467	2.7%
	Community	70,516	11.5%
	Total	611,915	100.0%

Source: SGS Economics and Planning, 2019

Warriewood Business Park's largest industry by 2036 will be Manufacturing (3,903 jobs), significantly higher than any other industry. This was also the case in 2016. Furthermore, the Professional, Scientific and Technical Services Industry is projected to grow significantly more than any other industry into the future, with an additional +229 jobs over the 20 years between 2016 and 2036. Other large industries in the Warriewood Business Park by 2036 will be Construction (854 jobs), Professional, Scientific and Technical Services (631 jobs), Health Care and Social Assistance (529 jobs) and Wholesale Trade (463 jobs)

Arts and Recreation Services is projected for the largest % increase by 2036 compared to 2016 job levels (+71%), followed by Education and Training (+58%) and Professional, Scientific and Technical Services (+57%). Despite being the largest industry by 2036, Manufacturing is expected to drop significantly into the future, losing -271 jobs in the 20 years between 2016 and 2036.

Employment by BICs reflects strong employment across all four Broader Industries, leaning towards Population Serving (1,688) and Industrial (1,534). While Population Serving is projected for the largest growth total (+293 jobs), Health and Education is projected for the largest % increase by 2036 compared to 2016 job levels (+41%), closely followed by Knowledge Intensive (+40%). Industrial is projected to lose -283 jobs by 2036.

TABLE 67: WARRIEWOOD BUSINESS PARK EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	696	971	275	40%
Health and Education	521	736	215	41%
Population Serving	1,395	**1,688**	293	21%
Industrial	1,817	**1,534**	-283	-16%

Source: TZP2016 v1.51 (TPA)

In 2036, Basic Chemical and Chemical Product Manufacturing is projected to continue having the largest presence of Manufacturing sub-industries (617 jobs), despite also having the largest number of jobs lost over the 20 years between 2016 and 2036 compared to any other Manufacturing sub-industry (-139 jobs).

All other sub-industries of Manufacturing have a drastically lower number of jobs, with Furniture and Other Manufacturing being the closest (96 jobs by 2036), followed by Machinery and Equipment Manufacturing (67 jobs), Printing (34 jobs) and Wood Product Manufacturing (28 jobs) While there is very little job growth projected across the sub-industries, Primary Metal and Metal Product Manufacturing (+4 jobs) and Pulp, Paper and Converted Paper Product Manufacturing (+1 job) are the only sub-industries projected for an increased number of jobs. Textile, Leather, Clothing and Footwear Manufacturing is projected to decline the most over the 20 years between 2016 and 2036 (-63%).

In terms of the Professional, Scientific & Technical Services industry in the Warriewood Business Park, many of the jobs there are in Computer System Design and Related Services (60 jobs), followed by Architectural Services (39 jobs) and Management Advice and Related Consulting Services (38).

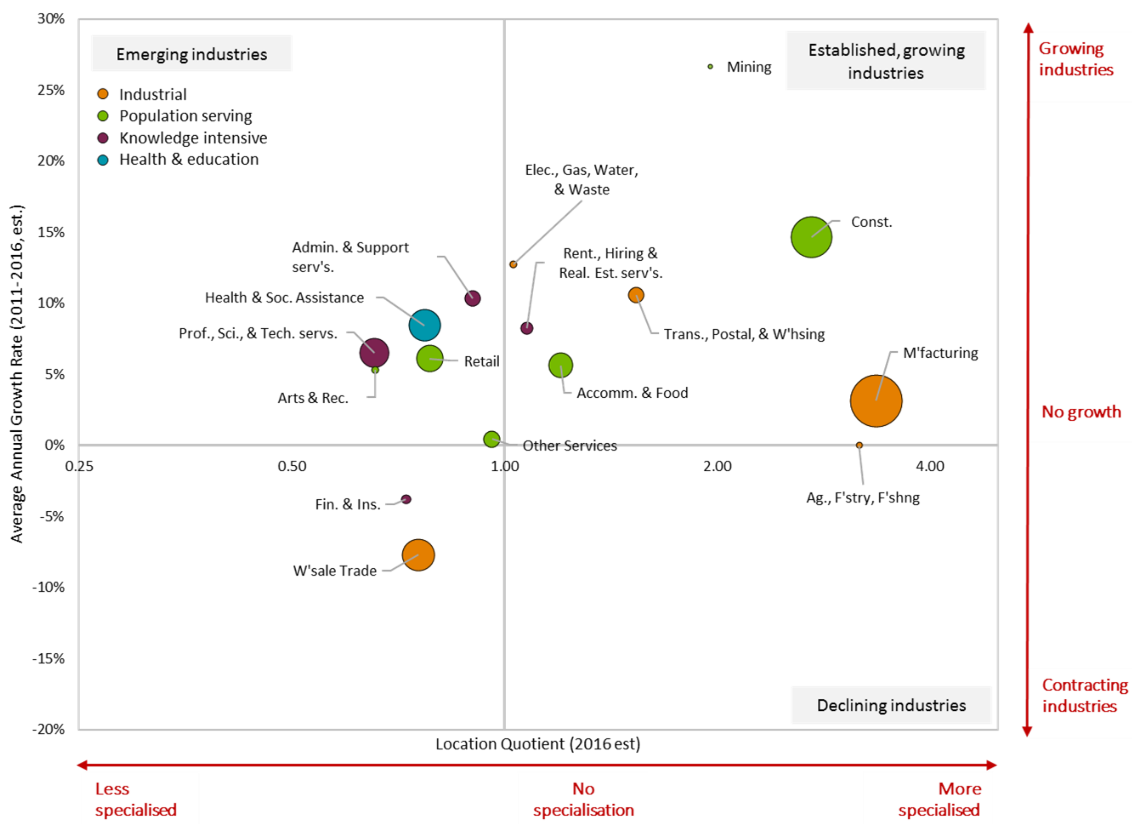
TABLE 68: WARRIEWOOD BUSINESS PARK BREAKDOWN EDUCATION AND TRAINING AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Computer System Design and Related Services	60
Architectural Services	39
Management Advice and Related Consulting Services	38
Accounting Services	30
Engineering Design and Engineering Consulting Services	23
Other Specialised Design Services	23

Source: ABS Census TableBuilder (2016)

Warriewood is largely specialised in Manufacturing. It is also one of the largest specialisations in the precinct. There are a number of other industries between an LQ of 0.5 and 2, however, they are relatively smaller compared to Manufacturing.

FIGURE 50: LOCATION QUOTIENT OF WARRIEWOOD BUSINESS PARK COMPARED TO THE NORTH DISTRICT



Source: SGS 2019 using ABS Census TableBuilder (2011, 16)

Within Manufacturing's sub-industries, Pharmaceutical and Medicinal Product Manufacturing has grown significantly in the five years between 2011 and 2016 (+213 jobs). All other sub-industries have either grown very little (below 5 jobs), not experienced any change, or declined. Professional and Scientific Equipment Manufacturing has declined the most (-25 jobs), followed by Computer and Electronic Equipment Manufacturing (-24), and Electrical Equipment Manufacturing (-14).

Cromer Industrial Park

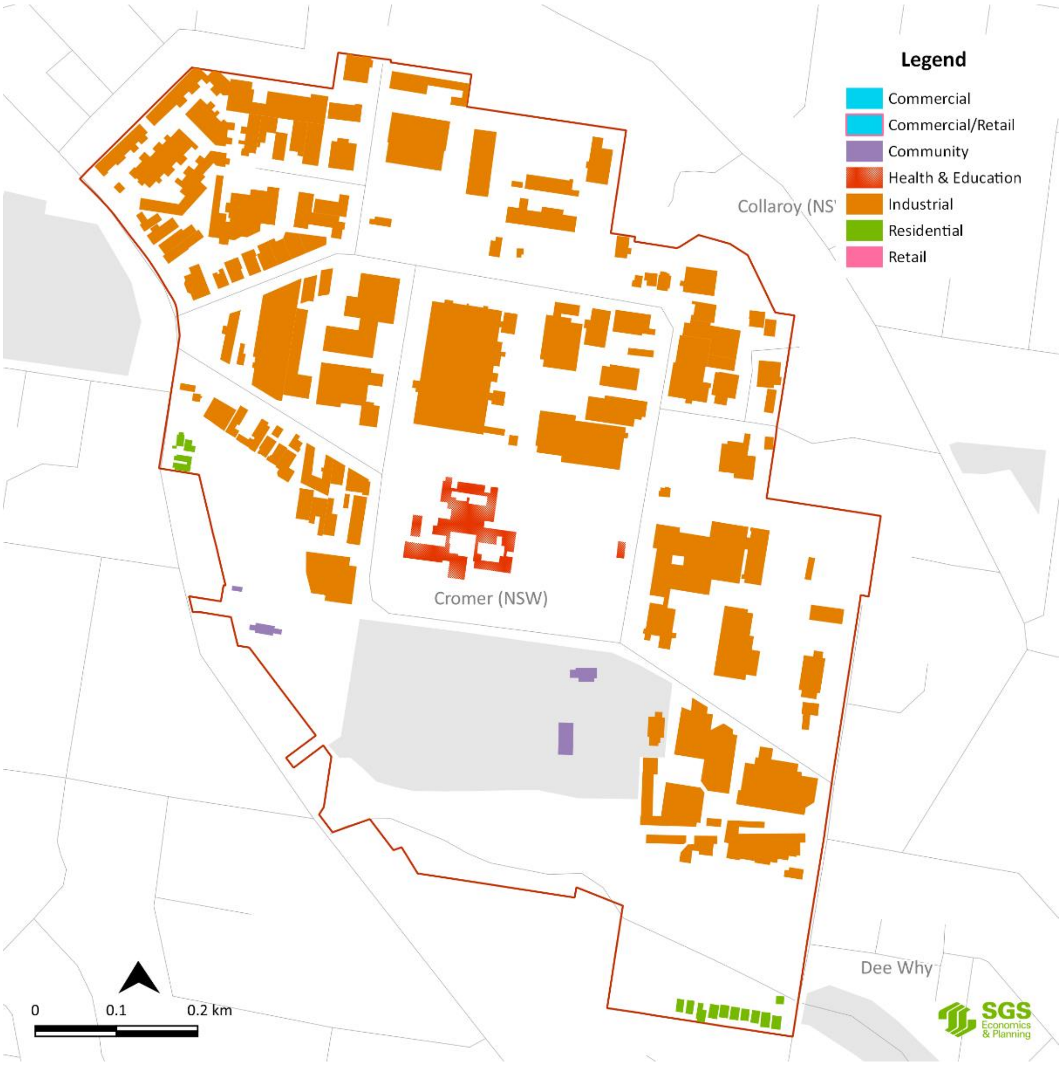
The Cromer Industrial Park is unique in the sense that it has industrial uses surrounding a public high school in its centre. Its industrial uses are primarily material manufacturing along with a number of head offices and other retail supply stores.

Its economic contribution is $299.74m. This is higher than the Northern Beaches average of $267.73m, but slightly lower than the Greater Sydney average of $309.03m. Most of its GVA comes from Wholesale Trade ($85.7m) and Manufacturing ($82.45m).

45% of Cromer's industrial land is surrounded by residential. This is slightly higher than the Northern Beaches average of 41%, and significantly higher than Greater Sydney (36%).

Land use overview

FIGURE 51: CROMER LAND USE



Source: SGS Economics and Planning, 2019

TABLE 69: CROMER INDUSTRIAL LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	-	0.0%
	Other Food	-	0.0%
	Clothing	-	0.0%
	Hospitality	-	0.0%
	Household goods	-	0.0%
	Other Retailing	-	0.0%
	Department Stores	-	0.0%
Non-Retail	Residential	4,756	2.9%
	Commercial	-	0.0%
	Industrial	130,389	79.7%
	Health & Education	22,731	13.9%
	Community	5,798	3.5%
	Total	**163,674**	**100.0%**

Source: SGS Economics and Planning, 2019

Cromer Industrial Park's largest industry by 2036 will be Manufacturing (640 jobs). This was also the case in 2016. Furthermore, the Public Administration and Safety Industry is projected to grow significantly more than any other industry into the future, with an additional +91 jobs over the 20 years between 2016 and 2036 to a total of 260 jobs. Other large industries in the Warriewood Business Park by 2036 will be Wholesale Trade (487 jobs), Construction (343 jobs), and Professional, Scientific and Technical Services (212 jobs).

Public Administration and Safety is projected for the largest % increase by 2036 compared to 2016 job levels (+54%), followed by Professional, Scientific and Technical Services (+46%) and Education and Training (+43%). Despite being the largest industry by 2036, Manufacturing is expected to drop significantly into the future, losing -265 jobs in the 20 years between 2016 and 2036.

Employment by BICs reflects strong employment in the Industrial category (1,409 jobs), despite the industry being projected to lose -205 jobs compared to 2016 levels. Knowledge Intensive and Population Serving are also projected to have a strong presence by 2036 (615 and 636 jobs respectively), with Knowledge Intensive projected to have the largest growth total across all four categories (+162 jobs). Health and Education, however, is projected for the largest % increase by 2036 compared to 2016 job levels (+38%), closely followed by Knowledge Intensive (+36%). Industrial is projected to lose -205 jobs by 2036.

TABLE 70: CROMER INDUSTRIAL PARK EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	452	615	162	36%
Health and Education	118	163	45	38%
Population Serving	549	636	86	16%
Industrial	1,614	**1,409**	-205	-13%

Source: TZP2016 v1.51 (TPA)

In 2036, Machinery and Equipment Manufacturing (225 jobs) and Furniture and Other Manufacturing (227 jobs) are projected to continue having the largest presence of Manufacturing sub-industries (617 jobs), despite also having the largest number of jobs lost over the 20 years between 2016 and 2036 compared to any other Manufacturing sub-industry (-88 and -84 jobs respectively).

All other sub-industries of Manufacturing have a drastically lower number of jobs, with Basic Chemical and Chemical Product Manufacturing being the closest (47 jobs by 2036), followed by Wood Product Manufacturing (32 jobs) and Primary Metal and Metal Product Manufacturing (23 jobs). All sub-industries are projected to decline by 2036, losing -265 jobs in total.

In terms of the Professional, Scientific & Technical Services industry in the Cromer Industrial Park, many of the jobs there are in Survey and Mapping Services (19 jobs), followed by Other Specialised Design Services (18), Engineering Design and Engineering Consulting Services (16) and Computer System Design and Related Services (15).

Cromer is largely specialised in Electricity, Gas, Water & Waste Services and Manufacturing. Manufacturing is a much larger industry. It also has an LQ of 3, reflecting a high degree of specialisation compared to the North District. Wholesale Trade is one of Cromer's largest industries, however, it is not particularly specialised compared to the other industries.

FIGURE 52: LOCATION QUOTIENT OF CROMER COMPARED TO THE NORTH DISTRICT

Source: SGS 2019 using ABS Census TableBuilder (2011, 16)

At a sub-industry level, Manufacturing has increased growth in a number of industries. These include Pump, Compressor, Heating and Ventilation Equipment Manufacturing (+37 jobs), Furniture Manufacturing (+32) and Electrical Equipment Manufacturing (+24).

Notable declines include Structural Metal Product Manufacturing (-19 jobs), Other Wood Product Manufacturing (-16), Other Fabricated Metal Product Manufacturing (-12) and Specialised Machinery and Equipment Manufacturing (-10).

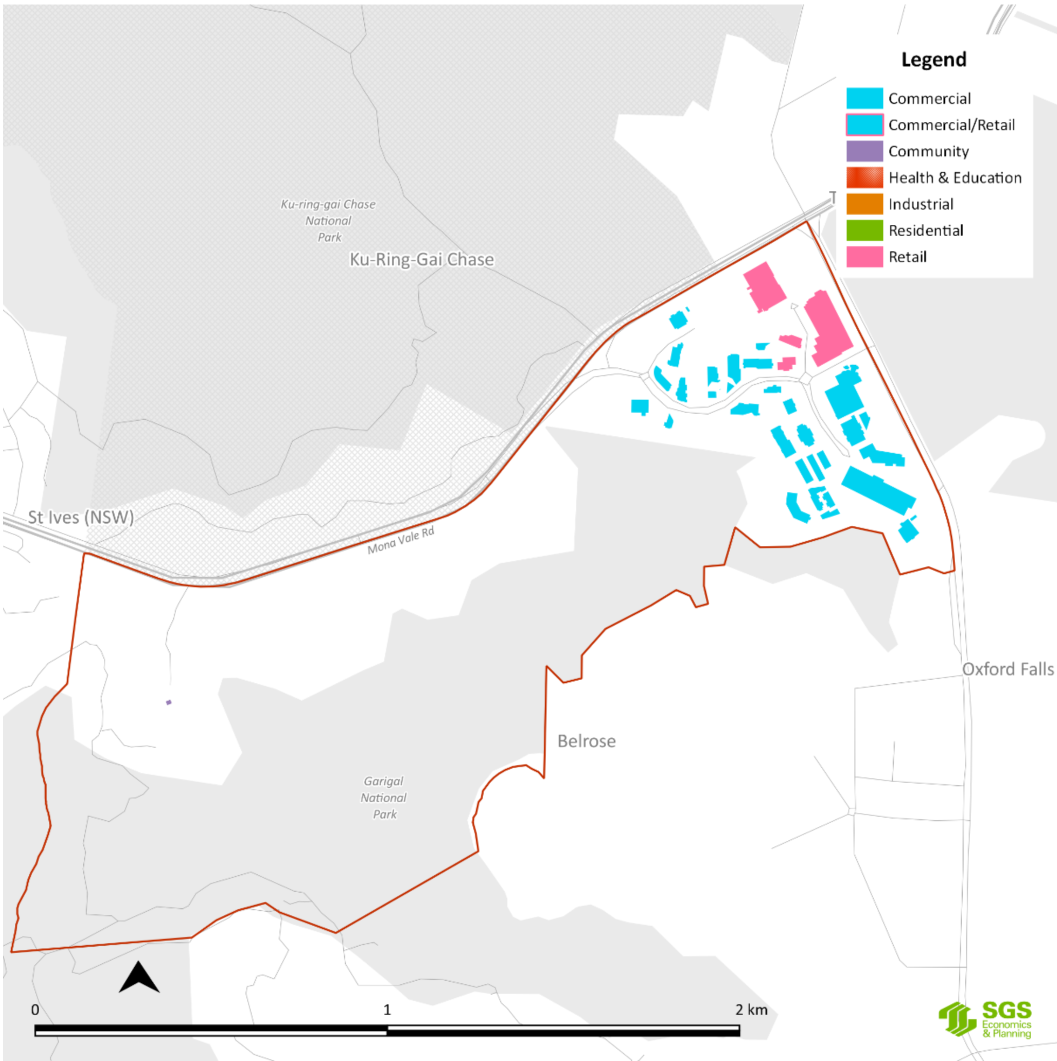
Austlink Business Park

Austlink Business Park catchment comprises primarily of corporate head offices running industrial and other related businesses next to Belrose Super Centre, a shopping mall located on Forest Way. It is almost entirely made up of large-format employment buildings. At a smaller scale, there are a number of retail supply stores.

Austlink Business Park is geographically isolated from the rest of the employment centres in the Northern Beaches. It is also surrounded by extensive of bushland.

Land use overview

FIGURE 53: AUSTLINK CORPORATE PARK LAND USE



Source: SGS Economics and Planning, 2019

TABLE 71: AUSTLINK CORPORATE PARK LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	-	0.0%
	Other Food	-	0.0%
	Clothing	-	0.0%
	Hospitality	387	0.1%
	Household goods	47,580	10.5%
	Other Retailing	6,137	1.4%
	Department Stores	-	0.0%
Non-Retail	Residential	-	0.0%
	Commercial	397,092	87.8%
	Industrial	-	0.0%
	Health & Education	163	0.0%
	Community	877	0.2%
	Total	452,237	100.0%

Source: SGS Economics and Planning, 2019

Austlink Business Park's largest industry by 2036 will be Professional, Scientific and Technical Services (1,101 jobs). This was not the case in 2016, as Retail Trade (882 jobs) and Wholesale Trade (811 jobs) were the largest, reflecting the strong projected growth of Professional, Scientific and Technical Services (+348 jobs compared to +49 jobs each in Retail and Wholesale Trade).

Public Administration and Safety Industry is projected to grow significantly more than any other industry into the future, with an additional +91 jobs over the 20 years between 2016 and 2036 to a total of 260 jobs.

Other large industries in the Warriewood Business Park by 2036 will be Manufacturing (516 jobs), Health Care and Social Assistance (246 jobs) and Construction (242 jobs).

Public Administration and Safety is projected for the largest % increase by 2036 compared to 2016 job levels (+57%), followed by Professional, Scientific and Technical Services (+46%) and Education and Training (+43%).

Manufacturing is expected to drop significantly into the future, losing -223 jobs in the 20 years between 2016 and 2036.

Employment by BICs reflects strong employment across all Broader Industries by 2036 (1,400 to 1,600 jobs each) except for Health and Education (336 jobs).

Knowledge Intensive is expected to have the largest job growth total in the 20 years between 2016 and 2036 (+386 jobs) and % change from 2016-36 job levels (+35%). Industrial is projected to lose -166 jobs by 2036 (-10% from 2016 job levels).

TABLE 72: AUSTLINK BUSINESS PARK EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	1,100	**1,487**	386	35%
Health and Education	280	336	56	20%
Population Serving	1,280	**1,407**	126	10%
Industrial	1,731	**1,565**	-166	-10%

Source: TZP2016 v1.51 (TPA)

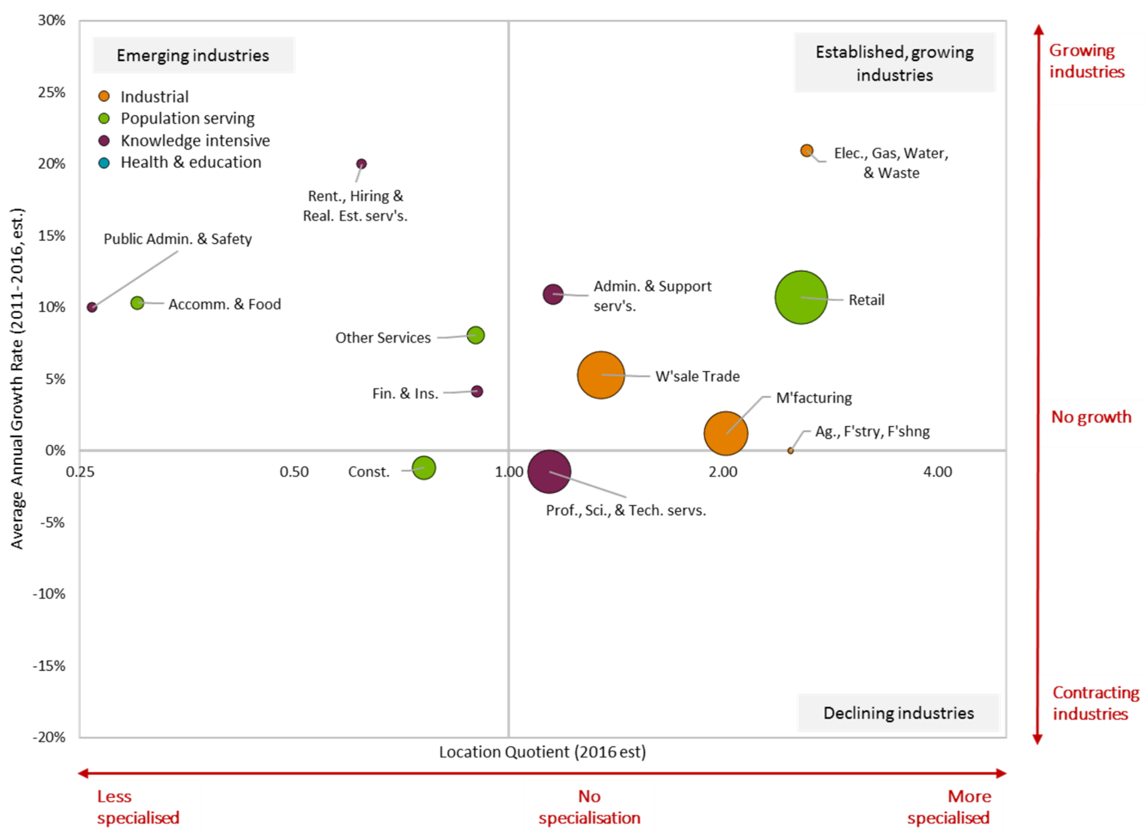
In 2036, Machinery and Equipment Manufacturing (304 jobs) is projected to continue having the largest presence of Manufacturing sub-industries, despite also having the largest number of jobs lost over the 20 years between 2016 and 2036 compared to any other Manufacturing sub-industry (-117 jobs). However, there is no Manufacturing sub-industry that is projected to increase from 2016-36, culminating in a total of -223 Manufacturing jobs lost over the 20 year. All other sub-industries of Manufacturing have a projected to have a drastically lower number of jobs by 2036, with Basic Chemical and Chemical Product Manufacturing being the closest (66 jobs by 2036), followed by Food Product Manufacturing (48 jobs) and Furniture and Other Manufacturing (33 jobs).

In terms of the Professional, Scientific & Technical Services industry in the Austlink Business Park, many of the jobs there are in Computer System Design and Related Services (281), followed by Accounting Services (45), Management Advice and Related Consulting Services (35) and Engineering Design and Engineering Consulting Services (34).

The precinct is largely specialised in Retail Trade and Manufacturing, with an LQ of approx. 2.75 and 2 respectively. Agriculture, Forestry and Fishing and Electricity, Gas, Water and & Waste Services are also specialised, however, they are very small industries.

Professional, Scientific and Technical Services and Wholesale Trade are large industries in the area however, they are not as specialised.

FIGURE 54: LOCATION QUOTIENT OF AUSTLINK COMPARED TO THE NORTH DISTRICT



Source: SGS 2019 using ABS Census TableBuilder (2011, 16)

Terry Hills rural precinct

Policy Context

Sydney's rural zoned lands are identified as Metropolitan Rural Areas (MRA) in the GSRP. The MRA's priorities, objectives and actions emphasise the importance of agricultural lands (see below) and work to balance social economic, environmental and economic factors that influence agricultural lands.

TABLE 73: GSRP PRIORITIES, OBJECTIVES AND ACTIONS

Planning Priority	Objectives	Actions
Planning Priority N18 Better managing rural areas	Objective 28: Scenic and cultural landscapes are protected. Objective 29: Environmental, social and economic values in rural areas are protected and enhanced.	Action 54: When preparing plans for tourism and visitation, protect heritage and biodiversity to enhance eco-tourism. Action 56: Protect and support agricultural production and mineral resources (in particular, construction materials) by preventing inappropriately dispersed urban activities in rural areas.
Planning Priority N17 Protecting and enhancing scenic and cultural landscapes	Objective 28: Scenic and cultural landscapes are protected.	Action 67: Identify and protect scenic and cultural landscapes Action 68: Enhance and protect views of scenic and cultural landscapes from the public realm.
Planning Priority N16 Protecting and enhancing bushland and biodiversity	Objective 27: Biodiversity is protected, urban bushland and remnant vegetation is enhanced.	Action 69: Maintain or enhance the values of the Metropolitan Rural Area using place-based planning to deliver targeted environmental, social and economic outcomes.
Planning priority N13 Supporting growth of targeted industry sectors	Objective 24 – Economic sectors are targeted for success.	Action 70: Limit urban development to within the Urban Area.

Source: NDP, 2018

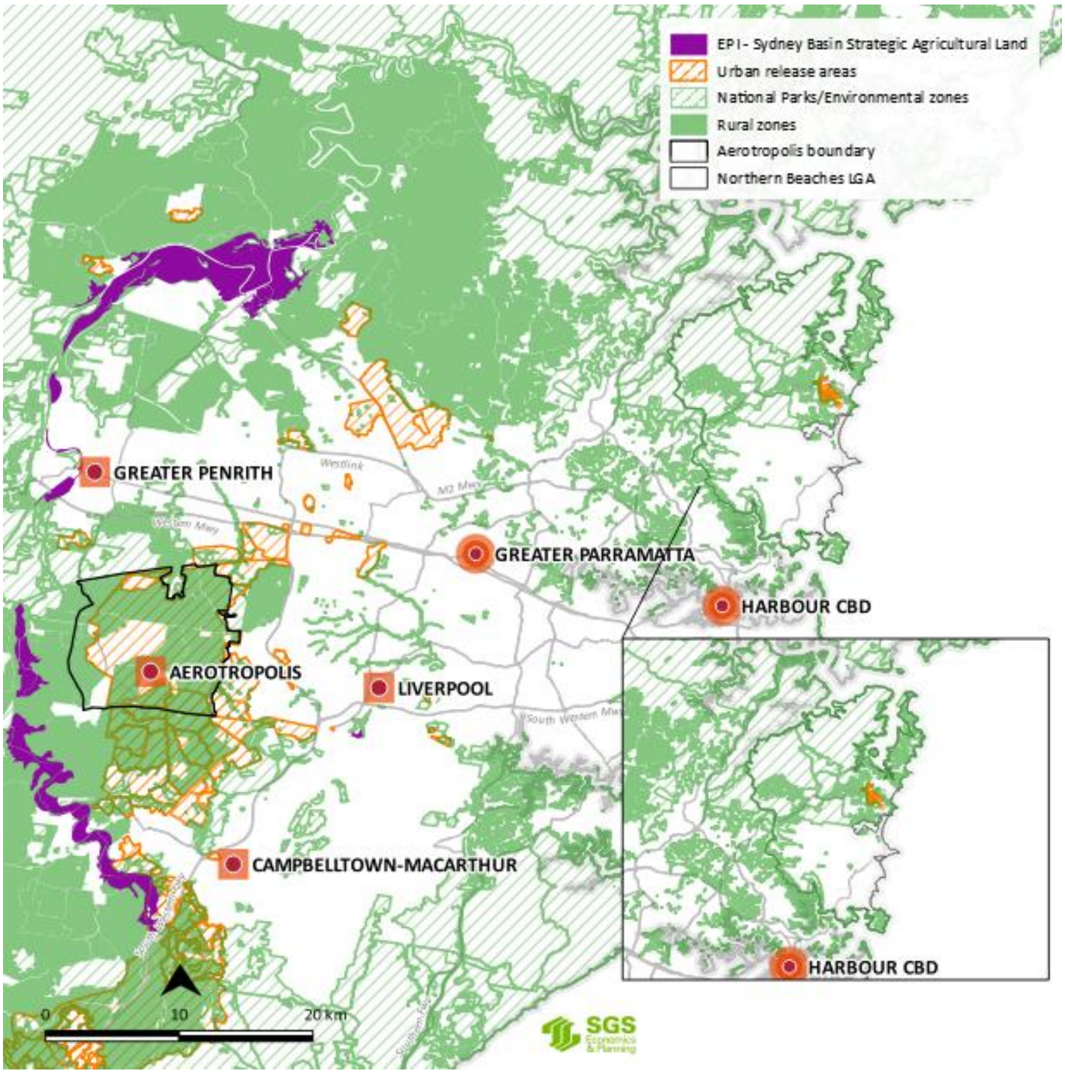
Direction N18 from the North District Plan requires better management of rural areas, and Objective 19 seeks to "ensure environmental, social and economic values in rural areas are protected and enhanced." This sets a policy direction for Council to consider how bushland, farmland, mineral resources and scenic landscapes are to be managed into the future. Direction N18 also seeks a *place-based planning* approach which emphasises the identification of unique local places as a base unit upon which policy objectives can be made.

The role of agricultural lands

Agriculture and the provision of timely food products for Greater Sydney and beyond is a significant challenge now and into the future. The demand for locally produced, sustainable food products in Sydney without the significant financial and environmental costs of transport is growing, while products produced in NSW are considered of a high quality and are in high demand. Research emphasises the important role that peri urban food production areas play in providing food security, climate mitigation and reducing flooding.

Figure 55 illustrates the network of rural zones and National Parks/Environmental zones that cover Sydney's basin. **In 2015-2016, the Sydney basin accounted for the 34% of vegetables produced** in NSW and with growing pressure from urban development making the availability of appropriate agricultural land challenging. Council has a role, as per the metropolitan planning framework, to ensure that agricultural production is not inappropriately dispersed by urban activities in rural zoned areas.

FIGURE 55: SYDNEY'S RURAL ZONED LANDS



Source: SGS, 2019

Agricultural industry in the Northern Beaches

Between the 2011 and 2016 there has been an overall increase in the agricultural industry across the Northern Beaches LGA. Nursery, Floriculture Production had the highest number of jobs in 2011 and 2016 and experienced the largest increase, followed by Dairy Cattle Farming.

TABLE 74: AGRICULTURAL INDUSTRY (POW)

Industry	Sub-industry	2011 Jobs	2016 Jobs	Change 2011-16
Agriculture	Agriculture, nfd	12	31	19
	Nursery and Floriculture Production, nfd	35	79	44
	Mushroom and Vegetable Growing	8	5	-3
	Fruit and Tree Nut Growing	3	10	7
	Sheep, Beef Cattle and Grain Farming	27	31	4
	Other Crop Growing	0	0	0
	Dairy Cattle Farming	4	22	18
	Poultry Farming	0	0	0
	Deer farming	0	0	0

Source: ABS, 2011 and 2016

5.5 Insights

Precinct profiling indicated:

- The presence of the Health and Education industry will grow into the future in Frenchs Forest, although currently Transport, Postal and Warehousing is Frenchs Forest's most specialised industry.
- Brookvale is highly specialised in Retail Trade. By 2036, Brookvale's largest industry will be Retail Trade (3,903 jobs), significantly higher than any other industry. Professional, Scientific and Technical Services Industry is also projected to grow significantly into the future in the centre.
- Dee Why's largest industry by 2036 will be Health Care and Social Assistance (1,197 jobs), closely followed by Accommodation and Food Services (1,049). The centre is highly specialised in Public Administration.
- Manly centre is expected to have significant jobs growth to 2036 in Knowledge Intensive jobs and Health and Education.
- Mona Vale is largely specialised in Other Services however, the industry is much smaller comparatively to the Retail Trade industry.

6. SUITABILITY ANALYSIS

6.1 Suitability analysis

Purpose

SGS has developed an in-house spatial model to measure the relative suitability of areas within a defined boundary to accommodate different land use types. The intent of this analysis is to understand where within an LGA are certain land uses best situated when planning for future growth. This is a valuable tool as it considers a range of criteria that land uses (and, by extension, employment types) may be most appropriately located near to or away from so Council is able to develop strategies to optimise the location of certain industries.

Method

Broadly, this method divides the LGA into lots. Each lot is then measured against a number of criteria (such as population density, proximity to arterial roads or lot sizes) to understand that lot's relative proximity to a particular point of interest representing that criteria.

Certain criteria are desirable for a land use to be to be near. These are referred to as 'Pull' factors. For other criteria it may be desirable to be further away from certain points of interest. These are referred to as 'Push' factors.

These separate indicators are then transposed onto a relative scale of 0 to 1. The minimum original value is assigned a score of 0, and the maximum original value is assigned a score of 1. All other values are spread across the spectrum. This highlights the variation between lots, but also allows for direct comparison between different indicators. For certain indicators, cut-off points have been applied. The purpose of this step is to exclude outliers but also to reflect similar rates of change after certain thresholds (for instance after the 30-minute point, the cost of travelling to a medical centre remains the same).

Once calculated, weightings are applied to heighten the value of specific indicators in the calculations. The overall score is derived by multiplying the designated weighting with the appropriate indicator and then summing up the results.

The suitability analysis has been undertaken for six different land use types. These are:

- General industrial – land uses that may take up large areas, require truck access and have noise and/or visual impacts on surrounding areas. They tend to locate away from established centres and residential areas.
- Local light industrial – local industrial functions such as car repairs that require moderately large site but benefit from being close to local centres and within access to a residential or business catchment.
- Strategic commercial – office floorspace that may strategically choose to locate anywhere in a District, Metropolitan area or LGA, based on access to public transport, established commercial areas etc.
- Local commercial – population-serving local services (such as accountants) who serve a local residential population or business community and are likely to seek to remain close to these networks within an LGA.
- Local and regional retail – retail uses that serve a local or district-level population but benefit from proximity to public transport, other areas of retail and good access to a surrounding population catchment

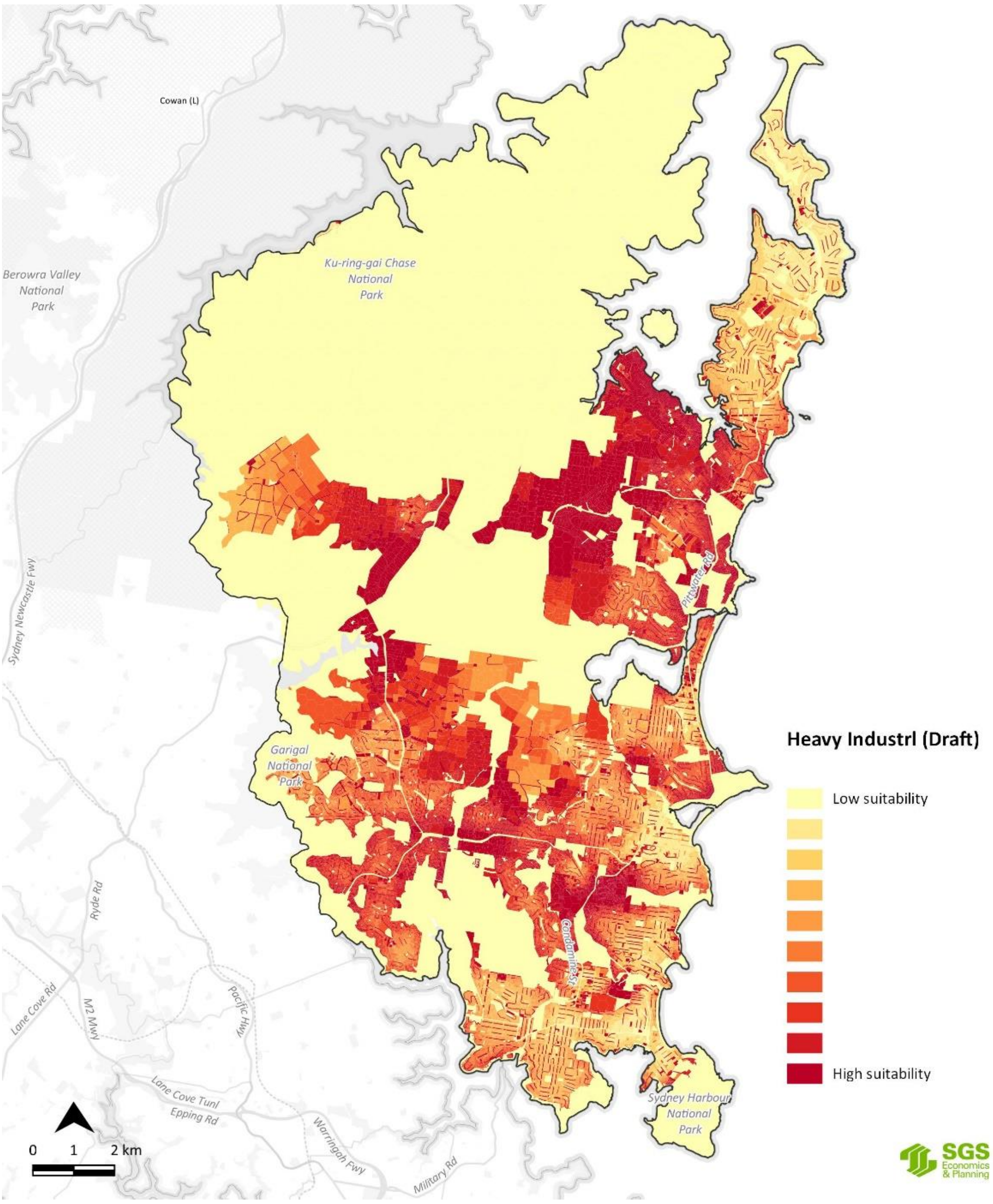
- Large format retail – retail uses that require larger floorplates that may not suit the amenity of a retail strip or even high amenity shopping centre, but that do benefit from visibility along arterial roads and reasonable adjacency to existing centres.

It is important to note that this analysis does not factor in existing zones or centres outside of the LGA. It is intended as a mechanism to advice of where, based on a range of criteria, certain land uses may best fit within the Northern Beaches.

General industrial

General industrial operations are most suitable away from Northern Beaches' centres in areas with larger lot sizes and distance from population. Broadly, these align with the LGA's existing industrially zoned areas but also identify places such as Terrey Hills, largely due to the area's large lots and distance from built up areas.

FIGURE 56 HEAVY INDUSTRIAL LAND USE SUITABILITY

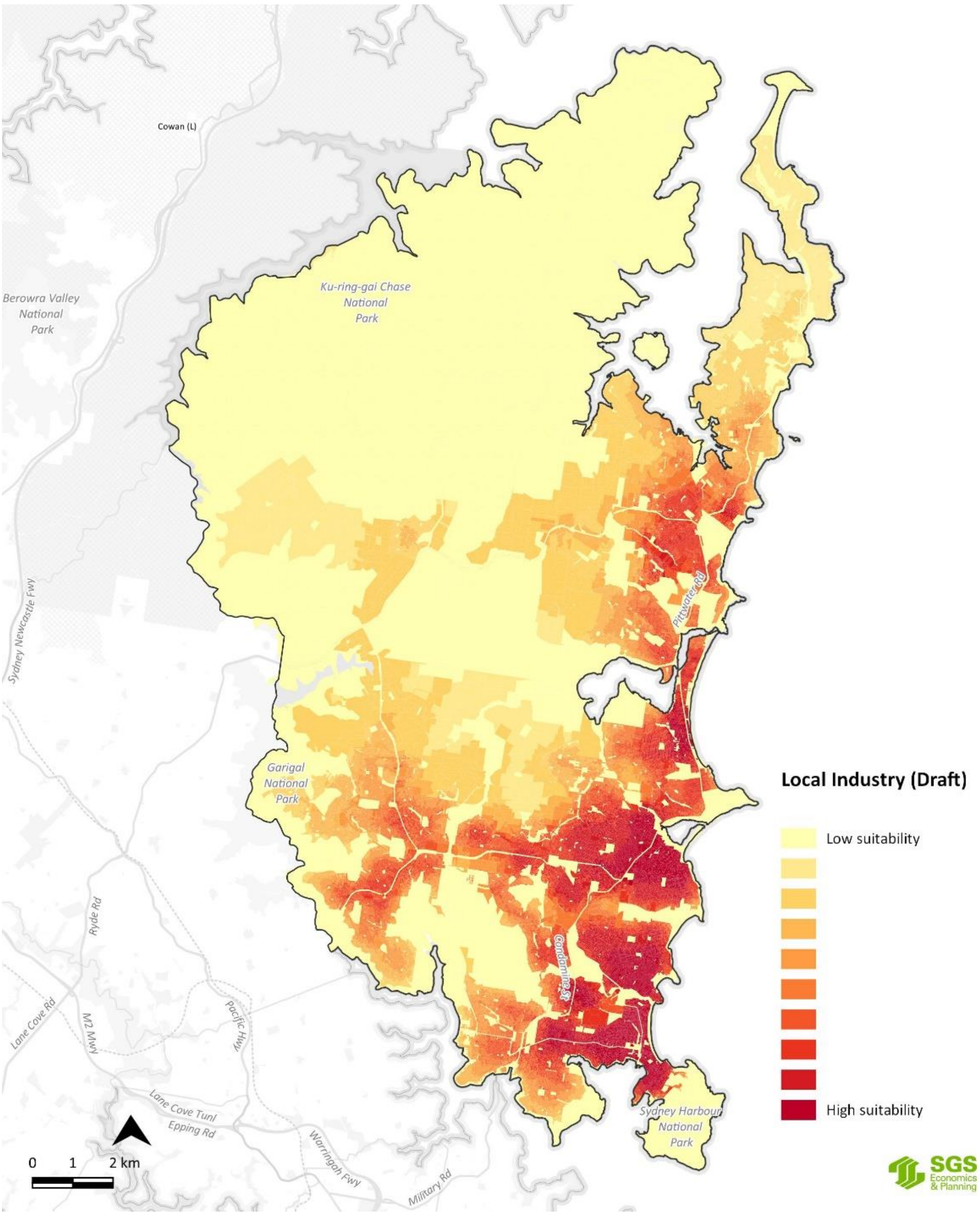


Source: SGS Economics and Planning, 2019

Local Light industrial

Local light industrial uses are pulled towards established centres and areas of high population and business concentration. While not necessarily suited to in-centre functions, transitional business zones away from commercial core functions can accommodate some of these activities such as mechanics, breweries, wholesale trade or postal distribution centres.

FIGURE 57 LOCAL LIGHT INDUSTRIAL LAND USE SUITABILITY

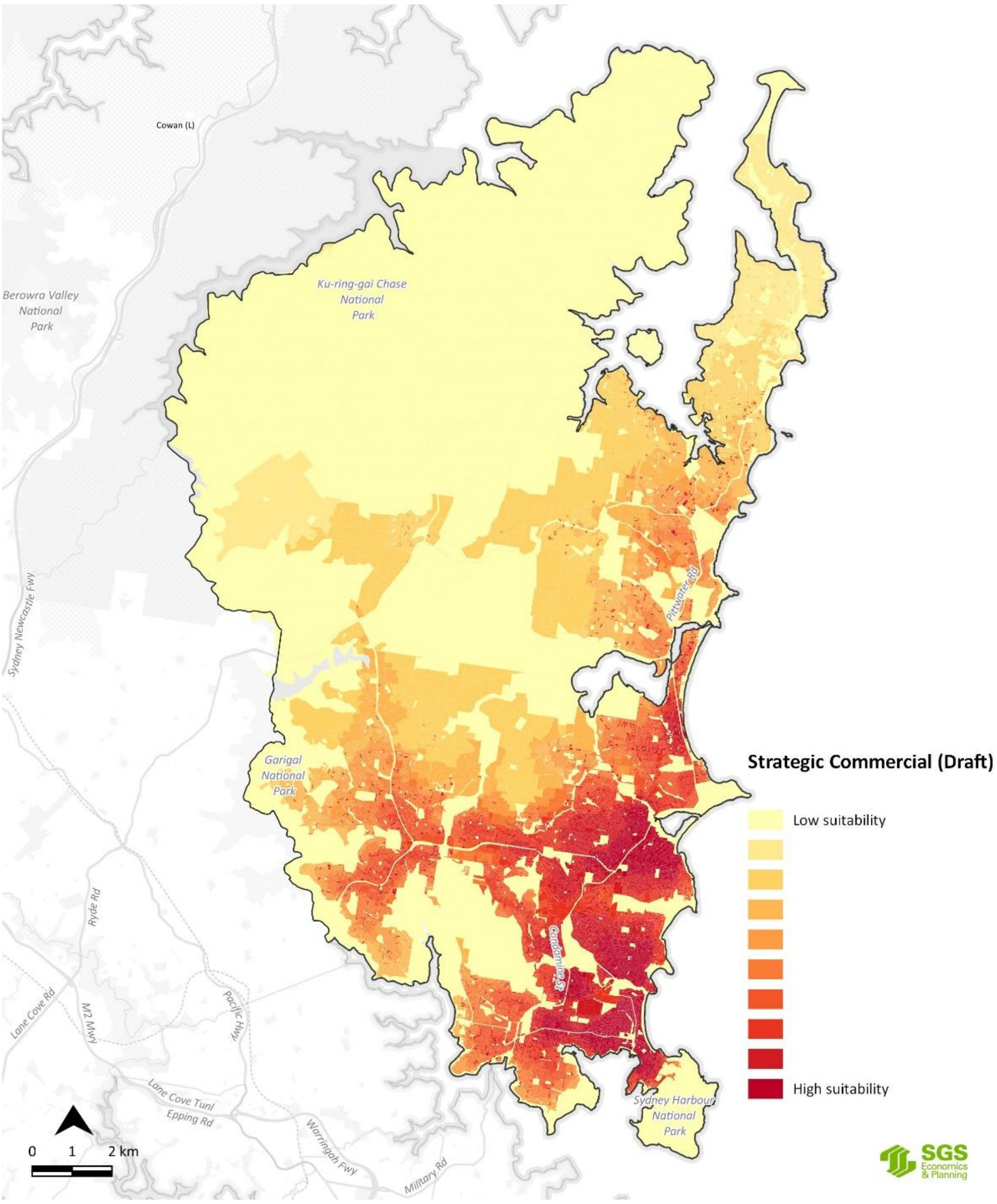


Source: SGS Economics and Planning, 2019

Strategic commercial

Strategic commercial has relative suitability distribute quite widely across the LGA, although there is clear concentration around centres such as Brookvale, Dee Why, Manly and along Warringah Road towards Frenchs Forest. Suitability is relatively weaker in the north of the LGA, likely due to higher public transport accessibility south of Narrabeen Lagoon.

FIGURE 58 STRATEGIC COMMERCIAL LAND USE SUITABILITY

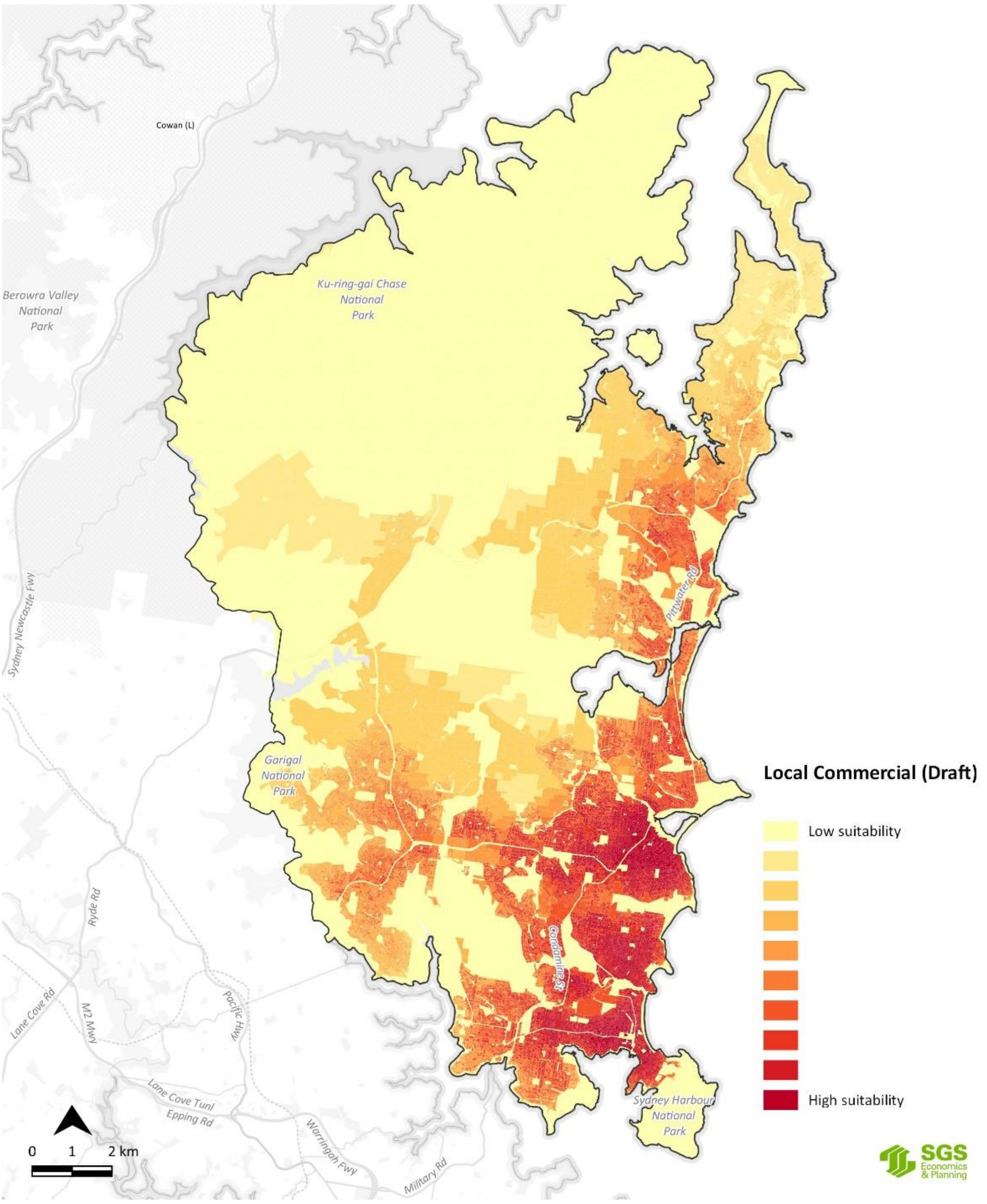


Source: SGS Economics and Planning, 2019

Local commercial

Local commercial, with its focus on population serving function and local business networks, is also pulled towards the larger centres of Brookvale, Dee Why, Manly and Frenchs Forest due to accessibility and surrounding population catchment. It does however have higher suitability further north into Mona Vale, Avalon and Newport.

FIGURE 59 LOCAL COMMERCIAL LAND USE SUITABILITY

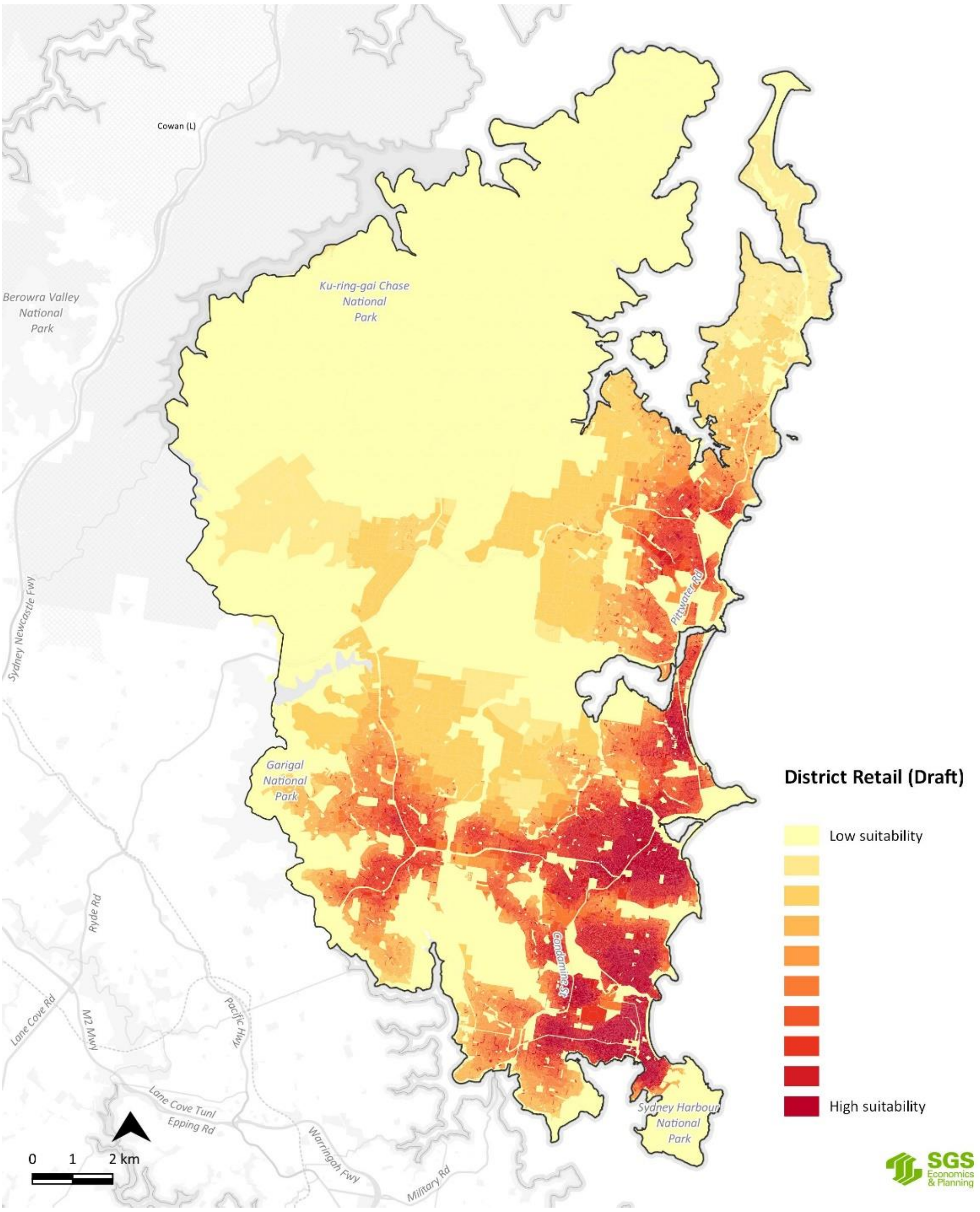


Source: SGS Economics and Planning, 2019

Retail – local/regional

Retail is most suitable along areas of high accessibility and visibility as well as in established centres. All centres from Manly to Mona Vale have high suitability and this falls away quite quickly with distance from arterial roads such as Pittwater Road and Warringah Road.

FIGURE 60 LOCAL / REGIONAL RETAIL LAND USE SUITABILITY

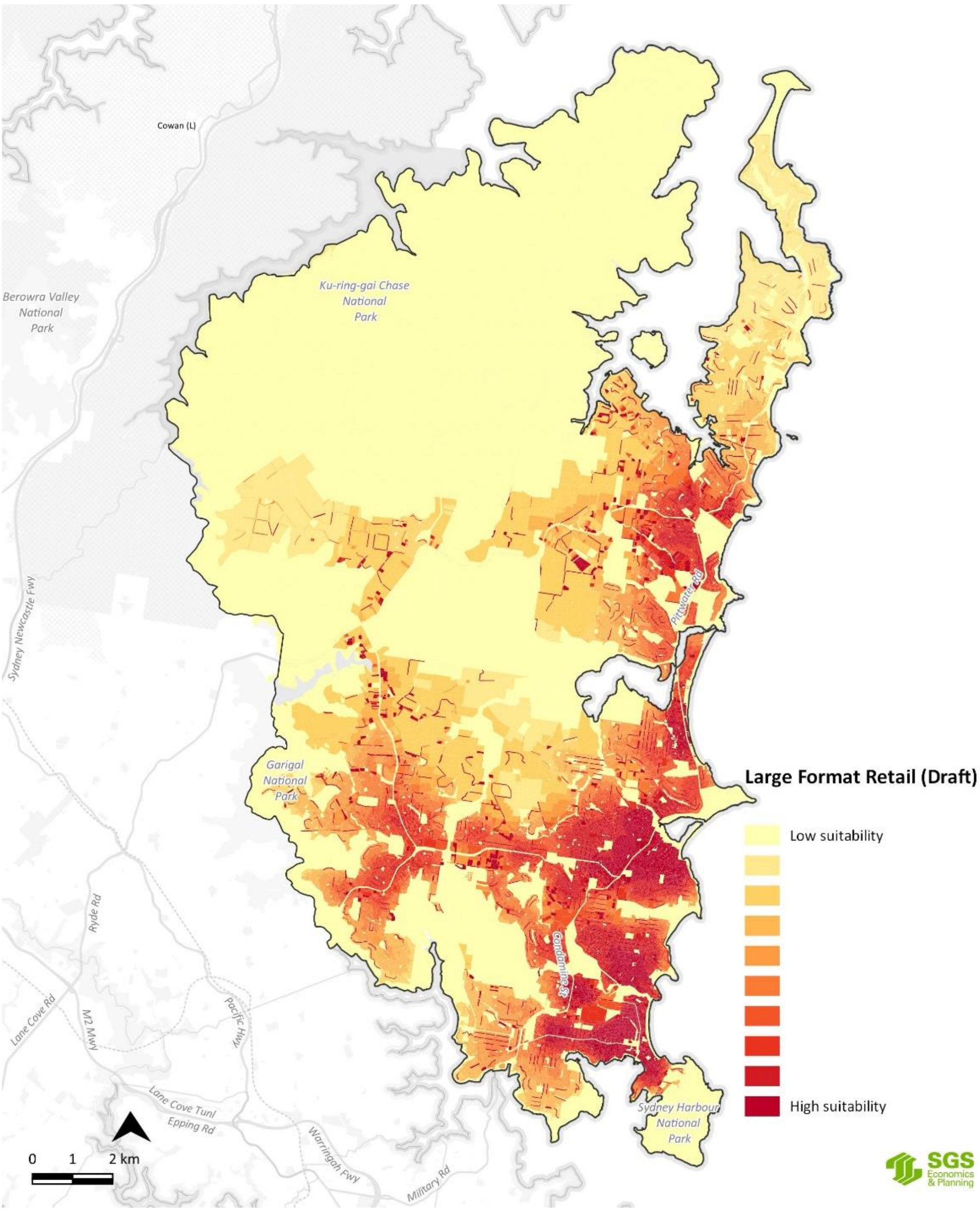


Source: SGS Economics and Planning, 2019

Retail – Large format

Large format retail suitability (including furniture stores or car show rooms) is clustered along key arterial roads also but les suitable in centres themselves. A good example of this is the Condamine Street corridor from Balgowlah to Brookvale and Pittwater Road between Brookvale and Dee Why, which does have good vehicular accessibility, large lots and high visibility for trade.

FIGURE 61 LARGE FORMAT RETAIL LAND USE SUITABILITY



Source: SGS Economics and Planning, 2019

6.2 Insights

Several key insights emerge from this suitability analysis process that will help to inform the development of employment and centre strategy.

- **Brookvale is suitable for a range of uses**. Brookvale's mix of industrial, retail and commercial functions as well as its central arterial road access makes it suitable for a wide range of uses. This is reflected already in Brookvale's industrial and operations character as it serves the Northern Beaches (and beyond) with a range of functions. The future of Brookvale will need to consider whether and how these distinct functions should be integrated or clearly demarcated, particularly to protect industrial land functions into the future.

- **There is a subtle but important stratification of commercial suitability.** Strategic and local commercial uses are both suited to major centres and to the availability of amenity and public transport access. What is noticeable in the Northern Beaches however is that strategic commercial has lower levels of suitability in the LGA's northern centres. This is due to the lower public transport accessibility and scale of these centres, compared with places such as Brookvale, Frenchs Forest and Manly which have great access to other centres of employment outside of the LGA. Local commercial however has higher suitability in these smaller centres as it is pulled towards local populations and does not rely so heavily on public transport access or arterial roads due to the local nature of their operations. This is useful when considering the relative role and functions of the smaller centres in the LGA.

- **Arterial road corridors are well utilised.** The Northern Beaches has quite effectively utilised its B5 and B6 zones, particularly around Balgowlah, Manly Vale and Brookvale-Dee Why to create out-of-centre bulky goods precincts.

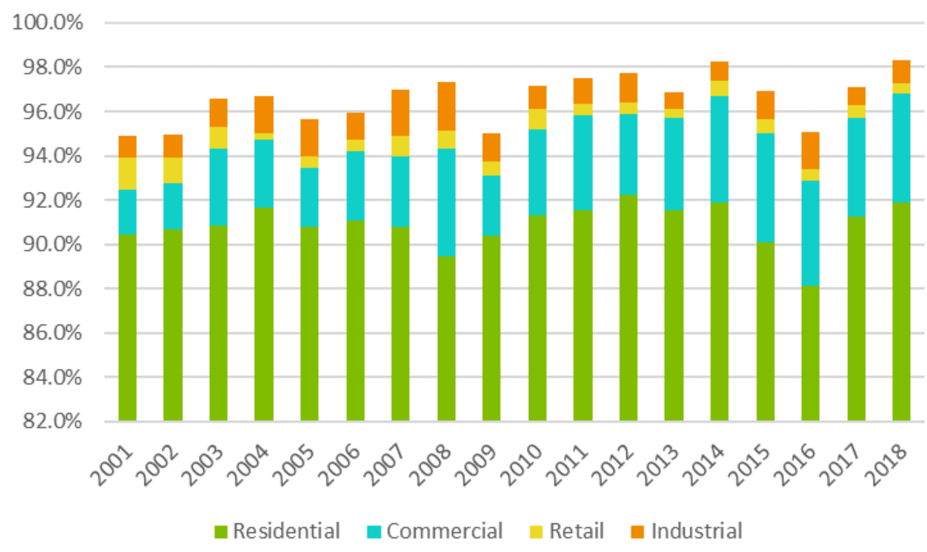
7. MARKET DATA ANALYSIS

7.1 Northern Beaches Market

Overall Market

Data obtained by the NSW Valuer-General (2018) between 2001 and 2018 finds that the predominant sale type occurring across the Northern Beaches LGA is in housing. On average, housing sales make up around 91% of all sales, ranging between 88% to 92% across the 18 years. Industrial and commercial make up an increasing proportion of total sales across the LGA (see Figure 62).

FIGURE 62: TOTAL SALES ACROSS NORTHERN BEACHES LGA, 2001 - 2018



Source: NSW Valuer-General, 2019

Table 75 breaks down this trend in sales composition over five-year periods to 2016, with the inclusion of the latest 2018 data. Commercial sales have increased from 2.1% to 4.9%, retail sales have decreased as a proportion from around 1.4% to 0.4%, industrial has seen little change other than the peak in 2016 at 1.7%, and land has decreased from 4.7% to 1.4%.

TABLE 75: CHANGE IN SALES COMPOSITION, 2001 TO 2018

Year	Residential	Commercial	Retail	Industrial	Land	Other	Total
2001	90.4%	2.1%	1.4%	1.0%	4.7%	0.4%	100%
2006	91.1%	3.1%	0.5%	1.2%	3.7%	0.3%	100%
2011	91.6%	4.2%	0.6%	1.1%	1.7%	0.8%	100%
2016	88.1%	4.8%	0.5%	1.7%	1.1%	3.8%	100%
2018	91.9%	4.9%	0.4%	1.1%	1.4%	0.3%	100%

Source: NSW Valuer-General, 2019

Commercial market

Commercial land values

Valuer-General LGA summaries[19] indicate that Northern Beaches' commercial land values (exclusive of the property) have increased by around 9.7% from $2,354 per sqm in July 2017 to $2,656 in July 2018. This is slightly faster growth than experienced across Eastern Sydney[20], which grew at 7.8%, though from a larger base.

TABLE 76: COMMERCIAL LAND VALUES PER SQM

Address	July 2017	July 2018	Change (%)
Old Barrenjoey Rd, Avalon Beach	$4,649	$4,649	-
Roseberry St, Balgowlah	$1,148	$1,376	19.9%
Narabang Way, Belrose	$666	$739	11.0%
Old Pittwater Rd, Brookvale	$543	$644	18.7%
Pittwater Rd, Brookvale	$1,760	$1,760	-
Fielding St, Collaroy	$2,484	$2,852	14.8%
Pittwater Rd, Collaroy	$1,995	$2,296	15.1%
The Strand, Dee Why	$3,669	$4,243	15.6%
Kalang Rd, Elanora Heights	$988	$1,011	2.3%
Sydney Rd, Fairlight	$3,419	$4,000	17.0%
The Centre, Forestville	$4,692	$5,390	14.9%
Rodborough Rd, Frenchs Forest	$550	$609	10.7%
Lawrence St, Freshwater	$3,209	$3,736	16.4%
Gilbert St, Manly	$10,554	$13,215	25.2%
Condamine St, Manly Vale	$2,592	$2,934	13.2%
Lagoon St, Narrabeen	$2,192	$2,516	14.8%
Barrenjoey Rd, Newport	$2,157	$2,157	-
Foamcrest Ave, Newport	$1,375	$1,435	4.4%
Pitt Rd, North Curl	$2,150	$2,451	14.0%
Pittwater Rd, North Narrabeen	$1,170	$1,170	-
Windsor Pde, North Narrabeen	$1,542	$1,542	-
Barrenjoey Rd, Palm Beach	$1,594	$1,635	2.6%
Barrenjoey Rd, Palm Beach	$2,162	$2,162	-
Sydney Rd, Seaforth	$3,243	$3,806	17.4%
Jacksons Rd, Warriewood	$399	$417	4.4%
Ponderosa Pde, Warriewood	$312	$312	-
Average Northern Beaches	*$2,354*	*$2,656*	*9.7%*
Average Eastern Sydney	*$4,946*	*$5,324*	*7.8%*

Source: NSW Valuer-General, 2019

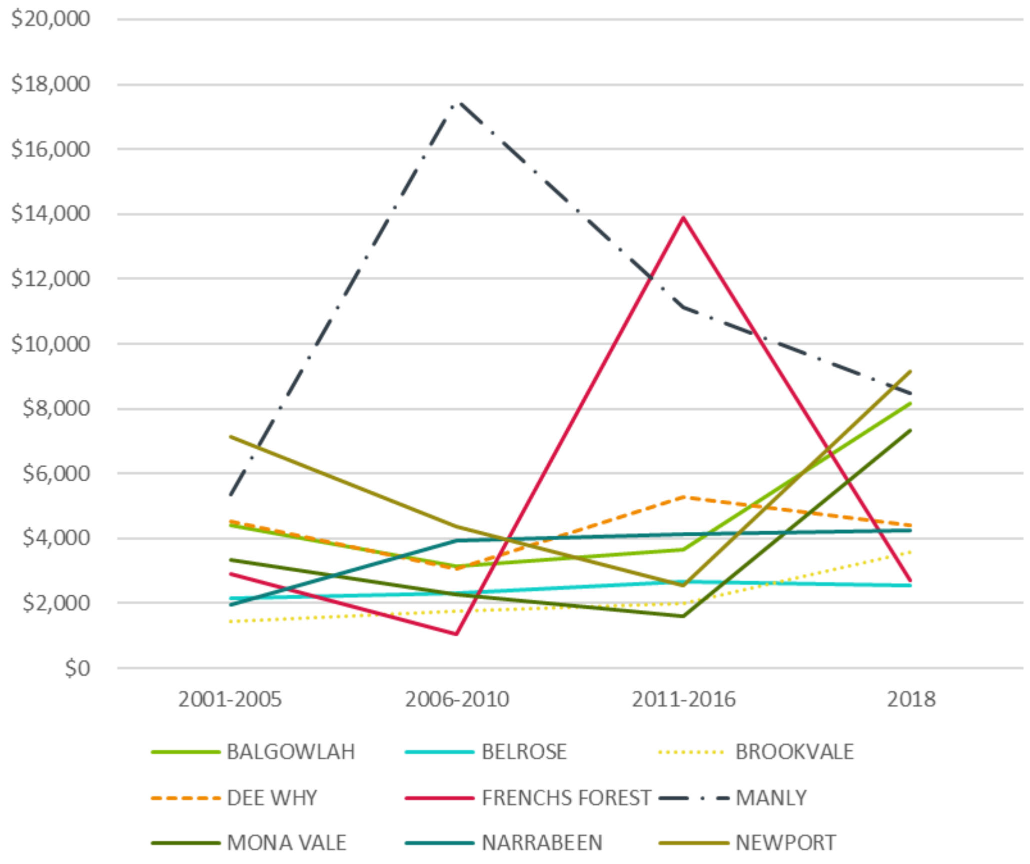
[19] NSW Valuer-General LGA Summaries, 2019. http://www.valuergeneral.nsw.gov.au/land_value_summaries/lga.php
[20] A list of 'Eastern Sydney' LGAs as defined by the Valuer General can be found here: https://www.valuergeneral.nsw.gov.au/land_value_summaries/region.php?region=32&base_date=01072018

Commercial property values per sqm by precinct (sales)

Median commercial property sales for the precincts within the Northern Beaches were analysed between 2001 and 2018 (see Figure 63). 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. Some precincts have been excluded due to insufficient data being provided by the Valuer-General (such as not recording floor areas of properties sold). In 2018, Newport and Manly held commercial values of around $9,156 and $8,468 per sqm, compared with $2,707 per sqm in Frenchs Forest and $2,540 per sqm in Belrose (the suburb which contains Glenrose Village and Austlink Business Park).

Figure 63 illustrates that commercial property values are rising fastest in Newport, followed by Balgowlah and Mona Vale. Manly seems to have maintained a relatively expensive price per sqm, peaking in the 2006-2010 period.

FIGURE 63: COMMERCIAL PROPERTY VALUES PER SQM



Source: NSW Valuer-General, 2019

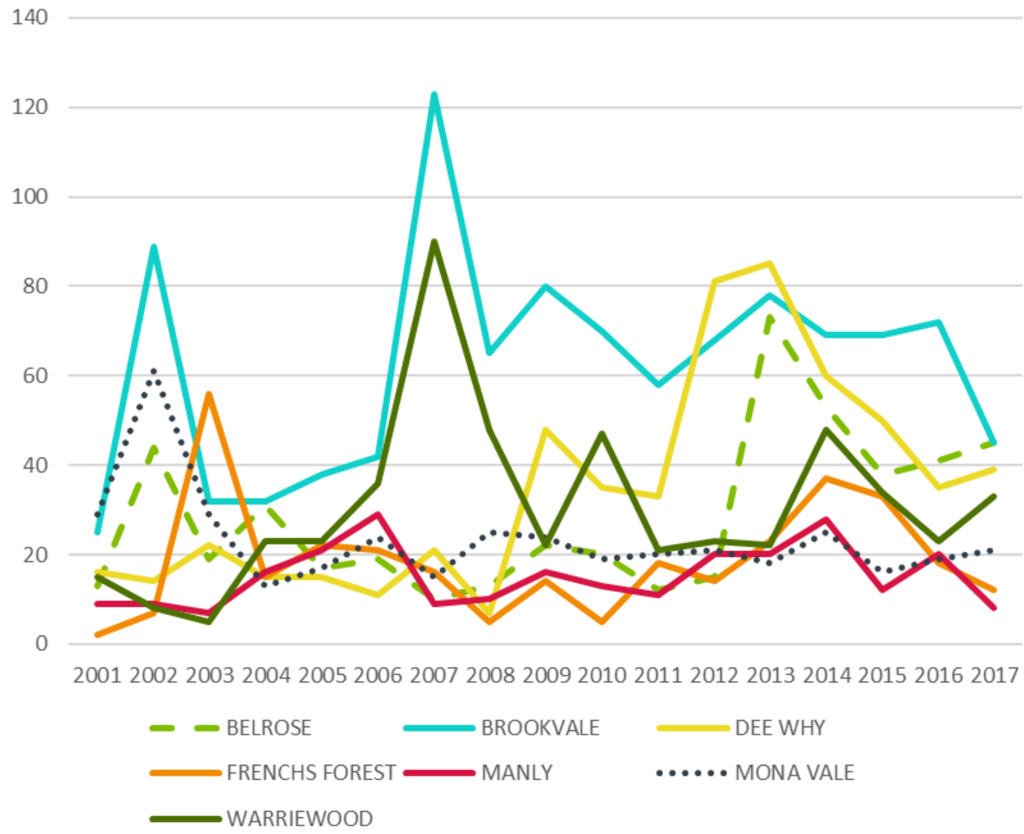
Commercial sales volumes by precinct

Figure 64 provides an analysis of commercial property sale volumes. It illustrates that Brookvale tends to be selling more commercial property, followed by Warriewood and Dee Why. Over the 18 years between 2001 and 2018, there have been approximately 3,620 commercial sales in the Northern Beaches, with the most being experienced in 2013 and 2014 (319 and 320 sales respectively). Comparatively speaking, 2017 contained 203 commercial sales.

In terms of precincts, Brookvale has had the most commercial sales (1,055) followed by Dee Why (587) and Warriewood (521).

Manly and Mona Vale seem to be tightly held, which may indicate a greater level of confidence in the local market.

FIGURE 64: COMMERCIAL SALES VOLUMES BY PRECINCT



Source: NSW Valuer-General, 2019

Industrial market

Industrial land values

Northern Beaches' industrial land values have increased by around 8.1% between July 2017 and July 2018. This is slower than the average growth across Eastern Sydney, which has a higher level as well as a higher growth rate of around 13%. The fastest growing area across Eastern Sydney was Willoughby (Artarmon and Chatswood) which grew by 57.5% and where the land value went from $1,496 to $2,360 over 12 months. This was followed by the City of Sydney (St Peters) which grew by 14.5%, as well as Lane Cove and Georges River which grew by 10.4% and 10.2% respectively. Randwick was the only LGA not to experience growth, followed by little growth in Hunters Hill (5.5%) and Bayside (5.7%).

TABLE 77: INDUSTRIAL LAND VALUES PER SQM

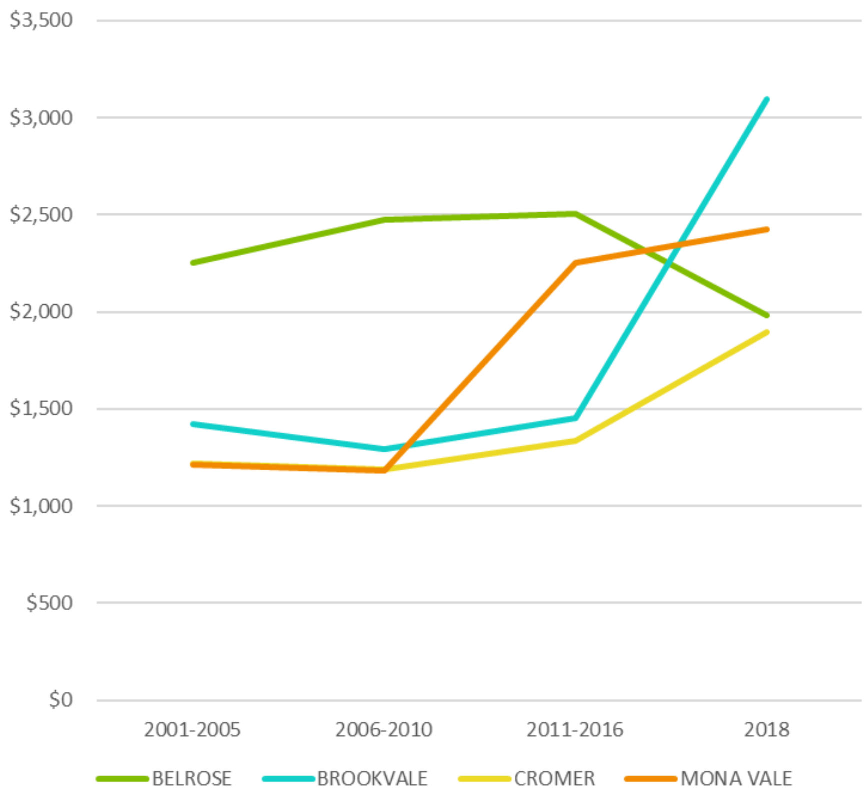
Address	July 2017	July 2018	Change (%)
Pittwater Rd, Bayview	$135	$135	-
Chard Rd, Brookvale	$1,087	$1,314	20.9%
Cross St, Brookvale	$1,059	$1,224	15.5%
Boola Pl, Cromer	$832	$832	-
Cook St, Forestville	$729	$899	23.3%
Rowe St, Freshwater	$917	$1,050	14.5%
Darley St, Mona Vale	$1,163	$1,163	-
Taronga Pl, Mona Vale	$1,000	$1,000	-
Pittwater Rd, North Manly	$1,400	$1,598	14.1%
Garden St, North Narrabeen	$805	$805	-
Myoora Rd, Terrey Hills	$605	$660	9.1%
Apollo St, Warriewood	$651	$651	-
Average Northern Beaches	*$865*	*$944*	*8.1%*
Average Eastern Sydney	*$1,320*	*$1,499*	*13%*

Source: NSW Valuer-General, 2019

Industrial property values per sqm by precinct (sales)

An analysis of major industrial precincts of the Northern Beaches was undertaken. The data reveals that property values have not followed any particular pattern across the precincts. The value of industrial properties in Brookvale and Cromer have risen over time while Belrose has declined.

FIGURE 65: INDUSTRIAL PROPERTY PRICES PER SQM

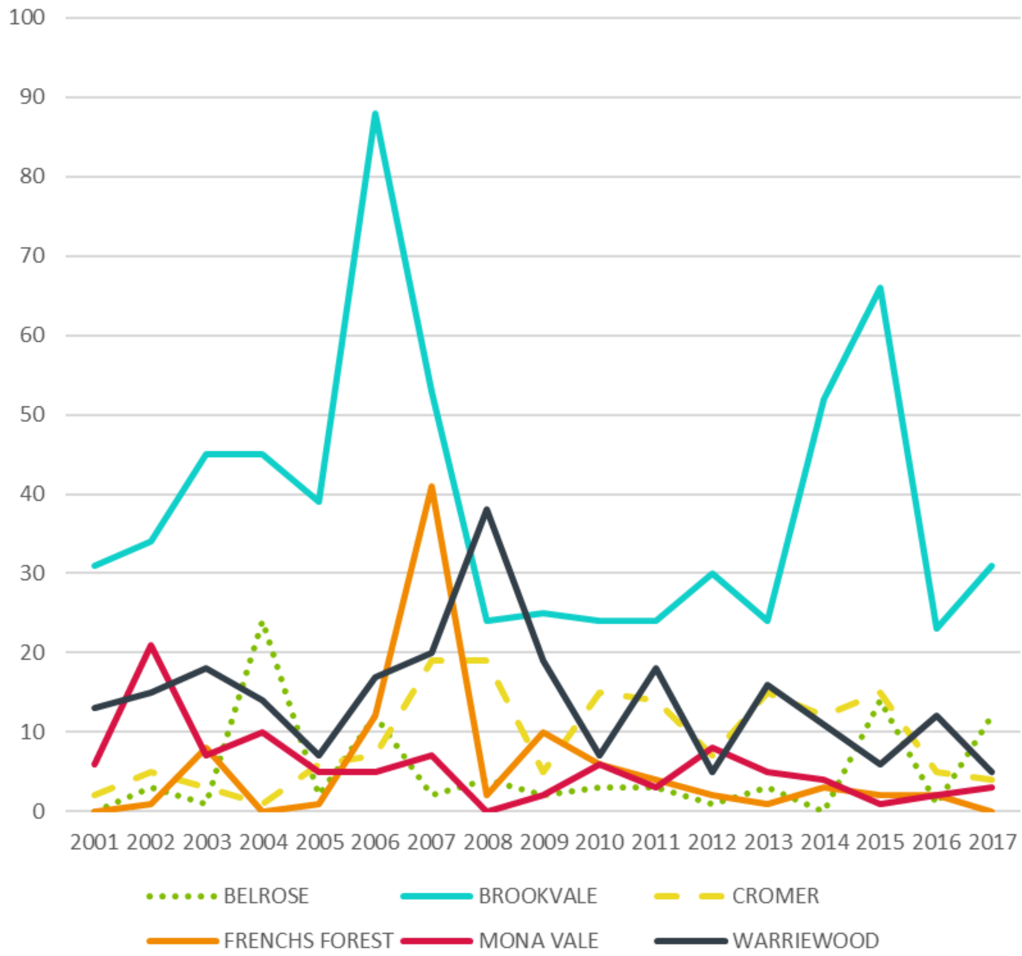


Source: NSW Valuer-General

Industrial sales volumes by precinct

Prices could be influenced by the amount of stock available for sale. Over the 18 years between 2001 and 2018, the Northern Beaches contained approximately 1,500 industrial sales, with the most being experienced in 2006 and 2007 (149 and 147 sales respectively). While there are no recorded industrial sales in 2018, 2017 experienced 55 industrial sales. Most areas experienced a peak in industrial sales between 2004 and 2008, with Brookvale experiencing another major peak in 2014-15.

FIGURE 66: INDUSTRIAL SALES VOLUMES BY PRECINCT



Source: NSW Valuer-General, 2018

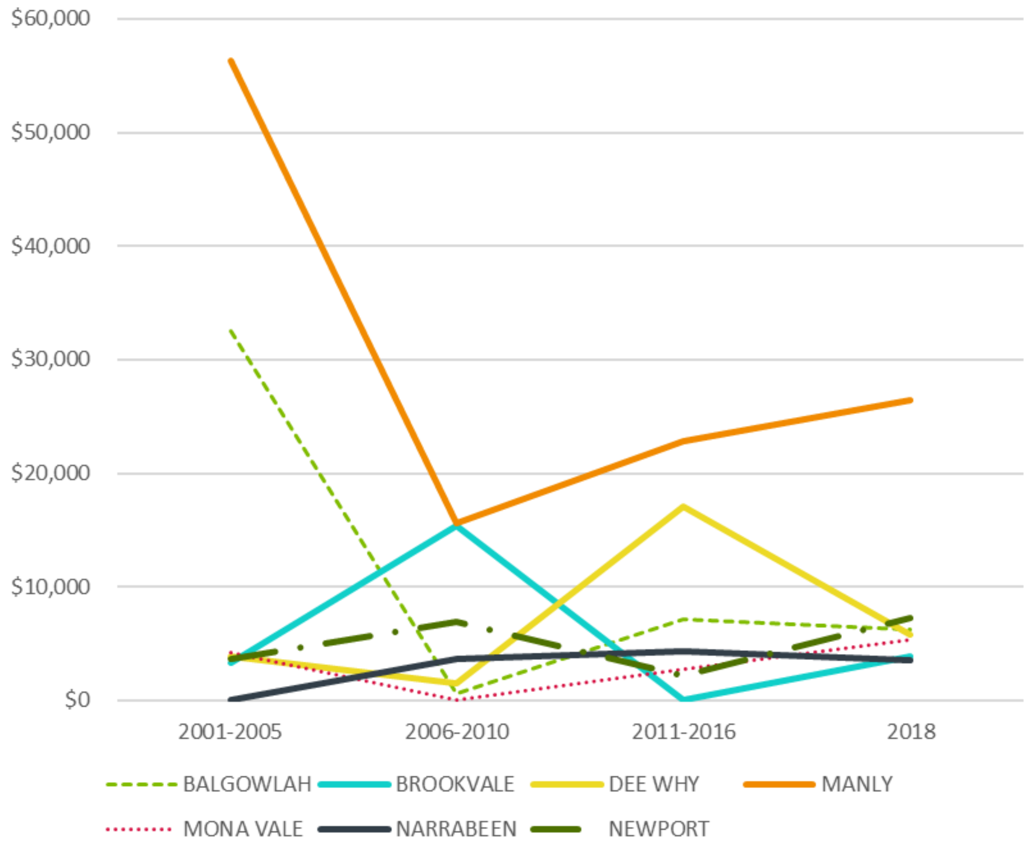
Retail Market

Limited retail data was available across the Northern Beaches, though estimates were made based on the precincts with the most 'complete' data from 2001 onwards.

Retail property values per sqm by precinct (sales)

The data indicates retail property prices per sqm have always been highest in Manly, while the other precincts have remained relatively the same at around $5,000 per sqm apart from Dee Why which experienced a peak in 2011-2016.

FIGURE 67: RETAIL PROPERTY PRICES PER SQM

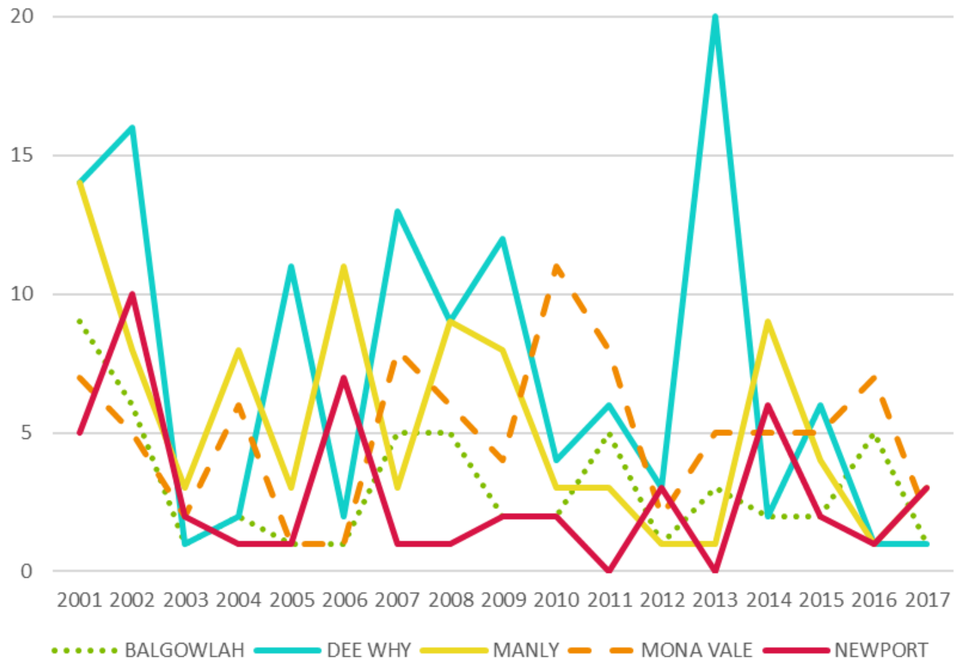


Source: NSW Valuer-General, 2018

Retail sales volumes by precinct

There have only been 555 retail sales across the Northern Beaches LGA in the 18 years between 2001 and 2018. The highest has been in Dee Why (123 sales), peaking in 2013 (20 retail sales). The peak year for retail sales was in 2001 and 2002, holding 57 and 55 retail sales respectively. Comparatively speaking, 2017 held 16 retail sales.

FIGURE 68: RETAIL SALES VOLUMES BY PRECINCT



Source: NSW Valuer-General, 2018

Vacancies

Vacancies by Category

The latest vacancy data (as of August 2019) across the Northern Beaches LGA identifies that there are approximately 470 sites currently for lease. Brookvale currently holds the highest number of commercial (69) and industrial (55) listings, while Dee Why holds the highest number of retail (51) listings. Inside the Northern Beaches LGA, Brookvale has the highest number of vacancies (150), followed Dee Why (97), Manly (49) and Frenchs Forest (38).

TABLE 78: VACANCIES BY CENTRE AND TYPE

Precinct	Commercial	Retail	Industrial	Total
Brookvale	69	26	55	150
Dee Why	46	51	-	97
Manly	25	24	-	49
Frenchs Forest	29	-	9	38
Warriewood	23	-	13	36
Mona Vale	13	6	7	26
Belrose	19	-	3	22
Newport	3	11	-	14
Narrabeen	3	6	1	10
Balgowlah	5	4	-	9
Avalon	1	3	-	4
Cromer	1	-	3	4
Freshwater	1	2	1	4
Manly Vale	-	3	-	3
Forestville	1	1	-	2

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

Vacancies by Price (lease)

Table 79 breaks down the vacancies by category and the estimated average price per sqm by the precincts within the Northern Beaches LGA. Not all precincts currently have vacancies.

For commercial vacancies, Frenchs Forest has the lowest rate per sqm at $352 per sqm, followed by Belrose at $369 per sqm and Dee Why at $379 per sqm. Manly is comparatively much higher than any other precinct for commercial vacancies at $854 per sqm.

For retail vacancies, Manly is also the most expensive at $1,245 per sqm, however it is closely followed by Avalon Beach and Freshwater at $1,180 and $982 per sqm respectively. Narrabeen and Brookvale have the lowest retail rates at $443 and $479 per sqm respectively.

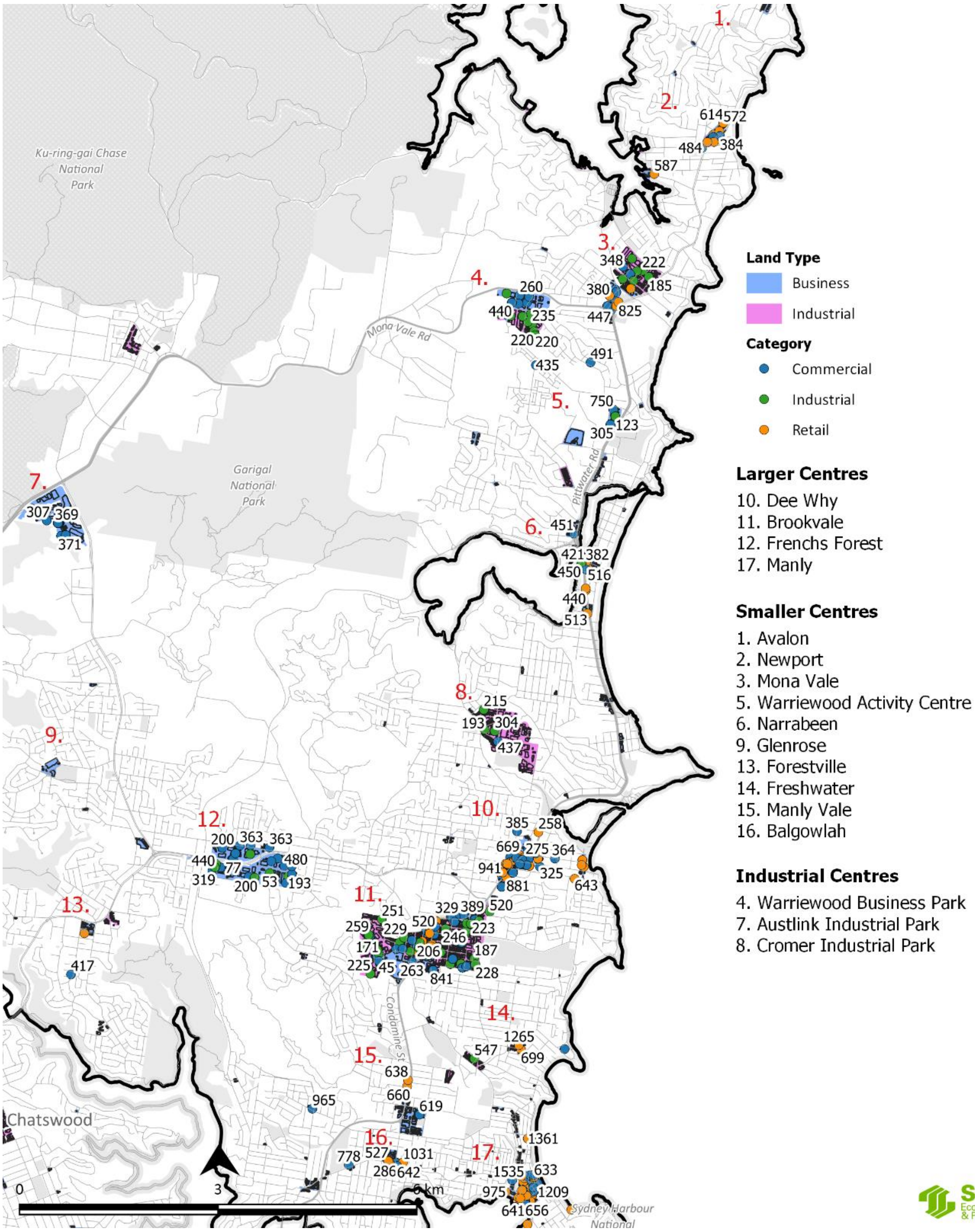
For industrial vacancies, Freshwater is the most expensive at $547 per sqm (however it should be noted that there is only one industrial listing in Freshwater), followed by Narrabeen at $421 per sqm (which also only has one industrial listing). The lowest industrial rates are in Frenchs Forest at $235 per sqm followed by Cromer ($237) and Belrose ($248).

TABLE 79: PRICES PER SQM BY CATEGORY AND CENTRE, AUGUST 2019

Centre	Commercial	Retail	Industrial
Avalon Beach	-	$1,180	-
Balgowlah	$658	$779	-
Belrose	$369	-	$248
Brookvale	$636	$479	$278
Cromer	$437	-	$237
Dee Why	$379	$728	-
Forestville	$417	-	-
Frenchs Forest	$352	-	$235
Freshwater	-	$982	$547
Manly Vale	-	$616	-
Manly	$854	$1,245	-
Mona Vale	$532	$666	$305
Narrabeen	$451	$443	$421
Newport	$434	$635	-
Warriewood	$476	-	$252
Average Northern Beaches	*$500*	*$775*	*$315*

Source: SGS Economics and Planning, 2019; Real Commercial, 2019

FIGURE 69: LISTINGS PRICES PER SQM BY CATEGORY AND PRECINCT, AUGUST 2019



Source: SGS Economics and Planning, 2019; Real Commercial, 2019

Case study: Frenchs Forest

Given Frenchs Forest's strategic importance as a centre in the future employment landscape of the Northern Beaches, a more detailed analysis was conducted to deduce the amount of vacant floorspace in terms of commercial and industrial spaces, as well as whether the space is new, refurbished/modern or old. Currently, Frenchs Forest's employment floorspace is distributed across a cluster of business park-type buildings.

As of August 2019, there is approximately 38,640sqm of vacant employment floorspace in Frenchs Forest, of which, 76% is commercial (29,188sqm).

Of the approximately 30,000sqm of vacant commercial floorspace in Frenchs Forest, 7% is new, 63% Is refurbished/modern and 30% is old. The refurbished/modern stock is mostly found along Rodborough Road while the new stock includes two buildings: one suite listed at 10 Tilley Lane (87sqm), and the Northern Beaches Health Hub yet to be constructed across from the street from the aforementioned building (2,000sqm).

TABLE 80: FRENCHS FOREST VACANT FLOORSPACE IN SQM, ABSOLUTE TERMS (AUGUST 2019)

Category	New	Refurbished/Modern	Old	*Total*
Commercial	2,087	18,284	8,817	*29,188*
Industrial	0	2,764	6,688	*9,452*
Total	*2,087*	*21,048*	*15,505*	*38,640*

Source: SGS Economics and Planning, Real Commercial, 2019

TABLE 81: FRENCHS FOREST VACANT FLOORSPACE PERCENTAGES (AUGUST 2019)

Category	New	Refurbished/Modern	Old	*Total*
Commercial	7%	63%	30%	*100%*
Industrial	0%	29%	71%	*100%*

Source: SGS Economics and Planning, Real Commercial, 2019

FIGURE 70: FRENCHS FOREST LISTINGS PRICE PER SQM AND QUALITY OF SPACE, AUGUST 2019

Source: SGS Economics and Planning, 2019; Real Commercial, 2019

TABLE 82: FRENCHS FOREST AVERAGE VACANT FLOORSPACE SIZES (AUGUST 2019)

Category	Average floorspace (sqm)
Commercial	1,006
Industrial	1,050

Source: SGS Economics and Planning, Real Commercial, 2019

Case study: Brookvale

Brookvale has a significantly higher number of listings than Frenchs Forest, offering a diverse range of commercial suites that generally sit between 50sqm – 180sqm each. However, the number of miniature office suites (ranging from 6sqm to 20sqm) is not miniscule, reflecting the diversity of office types that Brookvale offers. Some of the smaller suites attempt to cater for co-working spaces, as well as creative professionals. Commercial vacant floorspace accounts for 31% of all vacant stock, where the majority is refurbished/modern stock (31%) or old stock (68%).

In terms of industrial there are a high number of listings, of which the majority is old stock (63%).

Furthermore, retail only accounts for 11% of total vacant floorspace, where the majority is also overwhelmingly old stock (90%).

As of August 2019, there is approximately 42,433sqm of vacant employment floorspace in Brookvale, where 31% is commercial, 58% is industrial and 11% is retail.

Of the total vacant floorspace in Brookvale, 1% is new, 31% is refurbished/modern and 67% is old.

TABLE 83: BROOKVALE VACANT FLOORSPACE IN SQM, ABSOLUTE TERMS (AUGUST 2019)

Category	New	Refurbished/Modern	Old	*Total*
Commercial	205	4,026	8,846	*13,077*
Industrial	26	9,095	15,643	*24,764*
Retail	255	222	4,115	*4,592*
Total	*486*	*13,343*	*28,604*	*42,433*

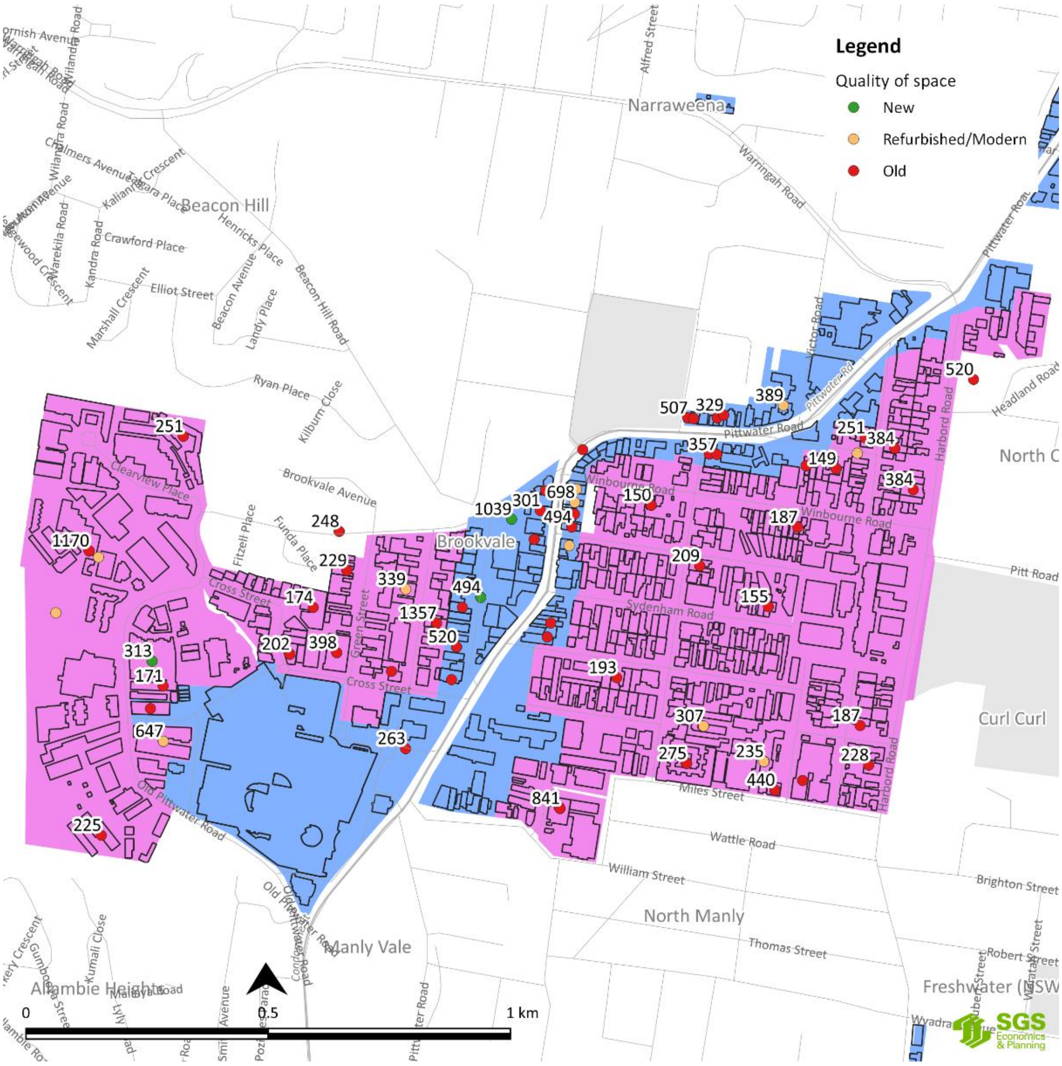
Source: SGS Economics and Planning, Real Commercial, 2019

TABLE 84: BROOKVALE VACANT FLOORSPACE PERCENTAGES (AUGUST 2019)

Category	New	Refurbished/Modern	Old	*Total*
Commercial	2%	31%	68%	*100%*
Industrial	0%	37%	63%	*100%*
Retail	6%	5%	90%	*100%*

Source: SGS Economics and Planning, Real Commercial, 2019

FIGURE 71: BROOKVALE LISTINGS PRICE PER SQM AND QUALITY OF SPACE, AUGUST 2019



Source: SGS Economics and Planning, 2019; Real Commercial, 2019

TABLE 85: BROOKVALE AVERAGE VACANT FLOORSPACE SIZES (AUGUST 2019)

Category	Average floorspace (sqm)
Commercial	192
Industrial	442
Retail	177

Source: SGS Economics and Planning, Real Commercial, 2019

Time on market

Estimating time on market was based on when an online listing was last updated to the date of download for this analysis. Using this indicator, it was possible to approximate that the average time on market across the various industry categories was around 28 days when taking the average by overall category. The average did however vary depending on the specific centre. Forestville was estimated to have the lowest average time on the market (8 days). This was followed by Freshwater (12), Avalon Beach (12) and Manly Vale (18).

TABLE 86: ESTIMATED TIME ON MARKET ACROSS KEY PRECINCTS

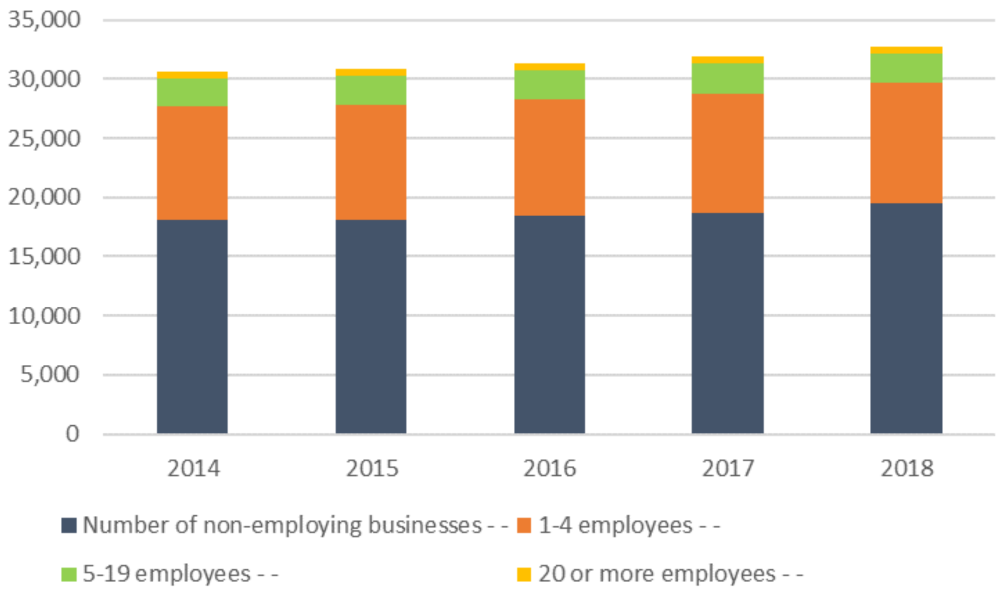
Precinct	Commercial	Industrial	Retail	Total
Avalon Beach	1	15	-	12
Balgowlah	28	31	-	29
Belrose	35	-	29	34
Brookvale	31	26	24	27
Cromer	42	-	23	28
Dee Why	32	30	-	31
Forestville	11	4	-	8
Frenchs Forest	21	-	23	22
Freshwater	7	17	6	12
Manly Vale	-	18	-	18
Manly	27	22	-	25
Mona Vale	30	37	21	29
Narrabeen	52	33	57	41
Newport	13	27	-	24
Warriewood	28	-	24	27
Average Northern Beaches	*29*	*27*	*24*	*28*

Source: SGS Economics and Planning, Real Commercial, 2019

Business size

The significant proportion of businesses in the Northern Beaches have fewer than five employees. 90% of businesses are this scale, while only 2% are greater than 20 people. This has a significant influence on the type of floorspace desired by businesses I the LGA.

FIGURE 72: SIZE OF BUSINESSES, NORTHERN BEACHES, 2014-2018



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

7.2 Economic contribution of industrial precincts

This analysis draws from the GSC's Urban Services database and reports at the precinct level as defined in that database.

Gross Value Added

The economic contribution of the industrial precincts across the Northern Beaches LGA, as measured by Gross Value Added (GVA), totalled over $4 billion in 2016, shown in Table 87 below. By far the largest contribution overall comes from Brookvale, as this the LGA's most prominent employment centre and it has easily the largest number of jobs. However, when measured in terms of GVA output per job, some of the smaller precincts are delivering more value, including Manly Vale and the precincts in Church Point.

TABLE 87: GVA BY PRECINCT IN 2016

Precinct	Total GVA ($m) (2016)	Number of jobs (2016)	GVA per job (2016)
Brookvale	$1,621	12,606	$128,556
Harbord	$142	1,066	$133,541
Mona Vale	$239	1,906	$125,479
North Narrabeen	$43	387	$111,278
Manly Vale	$388	1,274	$304,318
Forestville	$121	1,187	$101,541
Warriewood Valley	$471	3,674	$128,137
Cromer	$300	2,096	$143,004
Campbell Parade, Manly Vale	$127	658	$193,575
Tepko Rd, Terrey Hills	$207	1,710	$120,884
Queens Pde, Newport	$123	722	$170,963
Princes Lane, Newport	$73	474	$153,410
McCarrs Creek Rd, Church Point	$44	172	$256,198
Pittwater Rd, Church Point	$29	112	$256,198
Pittwater Rd, Bayview	$89	534	$166,803
Total Northern Beaches	**$4,016**	**28,578**	**$140,527**

Source: GSC Urban Services Database.

Table 88 below compares GVA per job in the Northern Beaches LGA's industrial precincts to the wider North District and Sydney overall. This shows that the LGA is delivering slightly less value per job compared to Metropolitan Sydney, with the North District having on average around $12,000 more GVA per job.

TABLE 88: GVA PER JOB – NORTHERN BEACHES LGA, NORTH DISTRICT AND GREATER SYDNEY

Geography	Total GVA ($m) (2016)	Number of jobs (2016)	GVA per job (2016)
Northern Beaches LGA	$4,016	28,578	$140,527
North District	$12,345	80,862	$152,666
Metropolitan Sydney	$81,370	568,363	$143,165

Source: GSC Urban Services Database.

Urban services floorspace

Table 89 below further illustrates the rate of urban services floorspace per capita (resident population) in the LGA compared to the North District. This shows that the Northern Beaches LGA has almost one more square metre of urban services floorspace per person than the wider District and above the 3sqm per capita identified by the GSC.

TABLE 89: URBAN SERVICES FLOORSPACE PER PERSON IN 2016

Geography	Population (2016)	Floorspace (sqm) (2016)	Floorspace per person (sqm) (2016)
Northern Beaches LGA	252,876	1,098,231	4.3
North District	850,382	2,891,850	3.4

Source: GSC Urban Services Database and 2016 Census.

7.3 Insights

- **Commercial floorspace demands are changing**. There is a shift in the type and location of commercial floorspace in demand in the LGA. Frenchs Forest has significant amount of vacant floorspace (approximately 38,000sqm as of August 2019 with an average of approximately 1,000sqm) and low rents compared with other centres ($352/sqm compared with an LGA average of $500/sqm).

- **Commercial vacancies exist but aren't necessarily of the right quality.** There is a reasonable amount of commercial vacancies in centres such as Brookvale, however it is likely that this is of relatively poor quality in small shop-top suites or within industrial precincts that do not provide the high-quality amenity that businesses may seek.

- **An economy of small businesses.** 90% of the Northern Beaches' businesses are fewer than five people. Future floorspace needs to ensure that the demands of this business size are accommodated.

- **Brookvale's commercial market offer is transitioning.** Brookvale has the third highest commercial rents in the LGA behind Manly and Balgowlah, however it also has the most commercial and industrial vacancies currently on the market. This may be due to the fact that the type of businesses seeking floorspace in the centre are looking for high quality floorspace, yet many of the vacant units are along Pittwater Road, which has low amenity and old commercial stock. This may mean that while stock is available, it is not the stock that businesses want.

- **Manly is an international tourist attraction which makes it also attractive for commercial uses.** In the year ending March 2018, Manly received 2.6 million visitors, of which 42% were from overseas. These international visitors account for a quarter of international visitors to NSW[21]. Many businesses are drawn to Manly's urban centre and beachside

[21] Destination NSW visitor survey data (https://www.destinationnsw.com.au/wp-content/uploads/2018/10/manly-visitor-profile-ye-mar-2018.pdf)

location as well as its direct access to the Sydney CBD which has impacts on both supply and prices of commercial floorspace. This has led to Manly's floorspace being significantly more expensive than anywhere else in the LGA ($854/sqm compared with an LGA-wide average of $500/sqm).

- The value of local centre commercial floorspace is increasing. The past five years has seen a significant increase in commercial sales values in smaller centres within the Northern Beaches. Balgowlah, Newport and Mona Vale have all seen per square metre prices increase significantly while at the same time, the high prices in Frenchs Forest and Manly have declined. Rental prices in these centres are also higher than more established commercial centres such as Belrose, Dee Why and Frenchs Forest. At the same time, the number of commercial properties on the market are low.

- Significant amount of old industrial floorspace in Brookvale. Of all of the identified currently vacant floorspace in Brookvale, over 60% of it is old and un-refurbished. So, while capacity may exist, it is not meeting the needs of current or future businesses.

- Industrial land values are increasing. Throughout the Northern Beaches, industrial land property prices have increased over the past five years to varying degrees in all major industrial precincts aside from Belrose. This has been sharpest in Brookvale, with prices per square metre doubling.

- Northern Beaches' industrial precincts play and important economic role. The various industrial precincts throughout the LGA are important to support local supply chains and accommodate a diversity of local services. They also contribute an estimated $4 billion in Gross Value added to the economy.

8. SUPPLY-SIDE ANALYSIS

This chapter examines the supply-side characteristics of Northern Beaches' employment floorspace for commercial, industrial and retail uses. It also outlines a series of capacity scenarios to identify potential floorspace supply under current building controls.

8.1 Methodology

Two approaches have been used to identify employment floorspace. Use diagram to explain process. Retail supply was derived through the combination of PSMA Australia building footprint data and the Google Places API. Each Google Places point. The result of this process was the identification of approximately 92 various retail centres across the Northern Beaches and Ku-ring-gai LGAs.

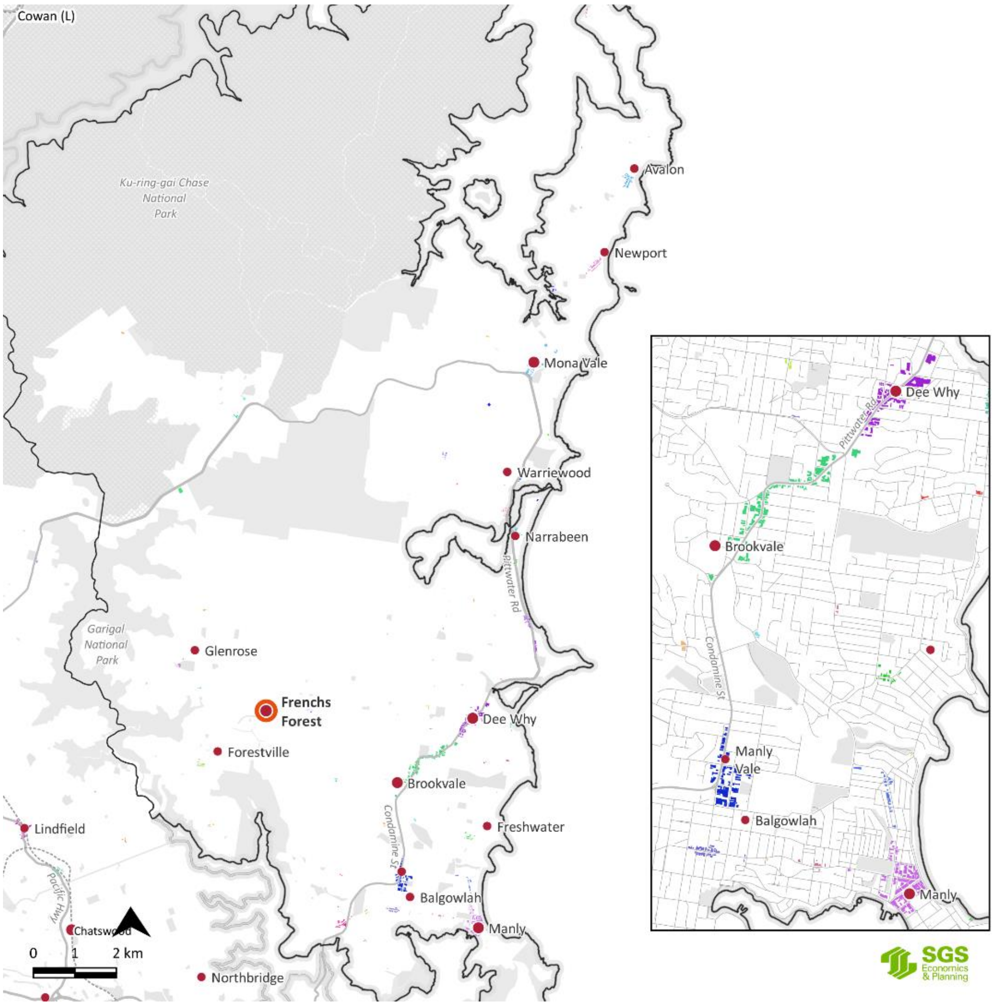
Commercial and industrial floorspace was identified through Geoscape building footprint data (a nation-wide database of building footprints and heights), overlaid on zone layers to identify their broad use. In mixed use zones, identified retail floorspace and buildings with a strata control were subtracted to leave a residual commercial (in business zones) or industrial (in industrial zones) floorspace supply.

8.2 Retail supply

Total current retail floorspace

Of the various retail centres across, nine of the top 10 largest centres are located within the Northern Beaches LGA (See Table 90). The St Ives shopping centre, located in Ku-ring-gai, is ranked 8th in terms of overall floorspace supply. The largest centre is considered to be Warringah Mall, estimated at around 135,211 sqm, followed by the Belrose Super Centre (44,786sqm) and Warriewood (27,740sqm). Warringah Mall holds the highest amount of total floorspace across all commodity groups except for Hospitality and Household Goods. Manly holds the highest amount of hospitality floorspace (9,621 sqm), with the Belrose Super Centre holding the most amount of Household Goods floorspace (38,144 sqm).

FIGURE 73: NORTHERN BEACHES' RETAIL PRECINCTS



Source: SGS Economics and Planning 2019

TABLE 90: TOP 10 RETAIL CENTRES, NORTHERN BEACHES AND KU-RING-GAI

Centre	LGA	Supermarket	Other Food	Hospitality	Clothing	House.Goods	Other Retail	Dept. Store	Total
Brookvale	LGA	13,166	2,262	6,195	35,558	18,791	14,635	44,605	135,211
Belrose Super Centre	LGA	-	-	388	-	38,144	6,253	-	44,786
Warriewood	LGA	8,727	499	608	4,559	770	5,135	7,443	27,740
Pacific Parade	LGA	5,632	2,187	9,316	1,344	5,727	2,793	213	27,212
Manly West Park	LGA	948	593	5,223	348	12,397	1,406	3,141	24,057
Manly	LGA	699	1,670	9,621	3,074	1,850	3,348	567	20,829
Mona Vale	LGA	2,392	1,696	3,744	2,273	7,858	1,108	-	19,071
St Ives*	Outside	4,959	894	2,884	2,782	2,420	1,658	-	15,596
Balgowlah Oval	LGA	5,288	1,214	1,902	1,472	1,731	446	-	12,053
Dee Why	LGA	5,101	1,448	3,426	445	137	1,014	-	11,570
Total		**46,912**	**12,463**	**43,307**	**51,855**	**89,825**	**37,794**	**55,968**	**338,125**

Source: SGS Economics and Planning, 2019

* Denotes non-LGA retail centres that are considered part of the Northern Beacehs' retail trade catchment

Total existing shopping centre floorspace

Individual shopping centre desktop audits were undertaken for approximately 10 centres across the Northern Beaches and Ku-ring-gai. It does not include non-retail commercial floorspace, or vacancies. Warringah Mall is by far the largest shopping centre across the Northern Beaches and Ku-ring-gai LGA's, with around 113,247 sqm. This is followed by the Belrose Super Centre (36,211 sqm) and Warriewood (27,701 sqm). Warringah Mall holds the highest amount of Supermarket, Other Food, Hospitality, Clothing, Other Retail and Department Store floorspace. Only the Belrose Super Centre holds the highest amount of Household Goods.

These floorspace figures are smaller than those in TABLE 90 as they account only for audited shopping centre floorspace, and do not include surrounding main street retail. In the case of Warringah Mall, this relates to floorspace in Westfields, not the retail in surrounding Brookvale.

TABLE 91: SHOPPING CENTRE FLOORSPACE, NORTHERN BEACHES AND KU-RING-GAI

Centre	Hierarchy	Supermarket	Other Food	Hospitality	Clothing	House.Goods	Other Retail	Dept. Store	Total
Brookvale	Sub-Regional	12,799	1,609	34,194	2,573	8,104	10,832	43,135	113,247
Belrose Super Centre	Sub-Regional	-	-	-	387	29,686	6,137	-	36,211
Warriewood	Sub-Regional	8,719	497	4,548	607	769	5,125	7,435	27,701
St Ives*	Neighbourhood	4,910	802	2,747	1,548	1,921	1,121	-	13,048
Balgowlah Oval	Neighbourhood	5,284	1,210	1,469	1,792	822	445	-	11,021
Forest Way	Neighbourhood	4,996	666	503	1,257	97	1,639	-	9,158
Glenrose Village	Neighbourhood	5,931	498	257	851	45	789	-	8,370
Dee Why	Neighbourhood	4,774	1,226	411	489	128	823	-	7,852
Pacific Parade	Neighbourhood	4,215	986	54	139	330	720	-	6,444
Gordon Station*	Neighbourhood	145	-	441	461	3,307	480	-	4,834
TOTAL		51,773	7,494	44,624	10,105	45,210	28,111	50,570	237,887

Source: SGS Economics and Planning, 2019

* Denotes non-LGA retail centres that are considered part of the Northern Beacehs' retail trade catchment

Proposed retail floorspace

Utilising the Cordell Connect dataset, it has been estimated that there is to be around 31,374 sqm of additional retail floorspace coming online by 2026. The largest 2021 development is a 1,107sqm 3 storey mixed use development at Wheeler Heights, which is expected to create around 12 ground floor retail tenancies. Much more retail development is projected to come online by 2026. The largest is the expansion of Warringah Mall at 145 Old Pittwater Rd, with almost 10,000sqm. This is followed by two, five-storey mixed use buildings and ground floor retail in Lindfield. The third largest is an expansion to the Forest Way Shopping Centre, with around 5,936 sqm of retail.

TABLE 92: TOP 10 RETAIL CENTRES, NORTHERN BEACHES AND KU-RING-GAI

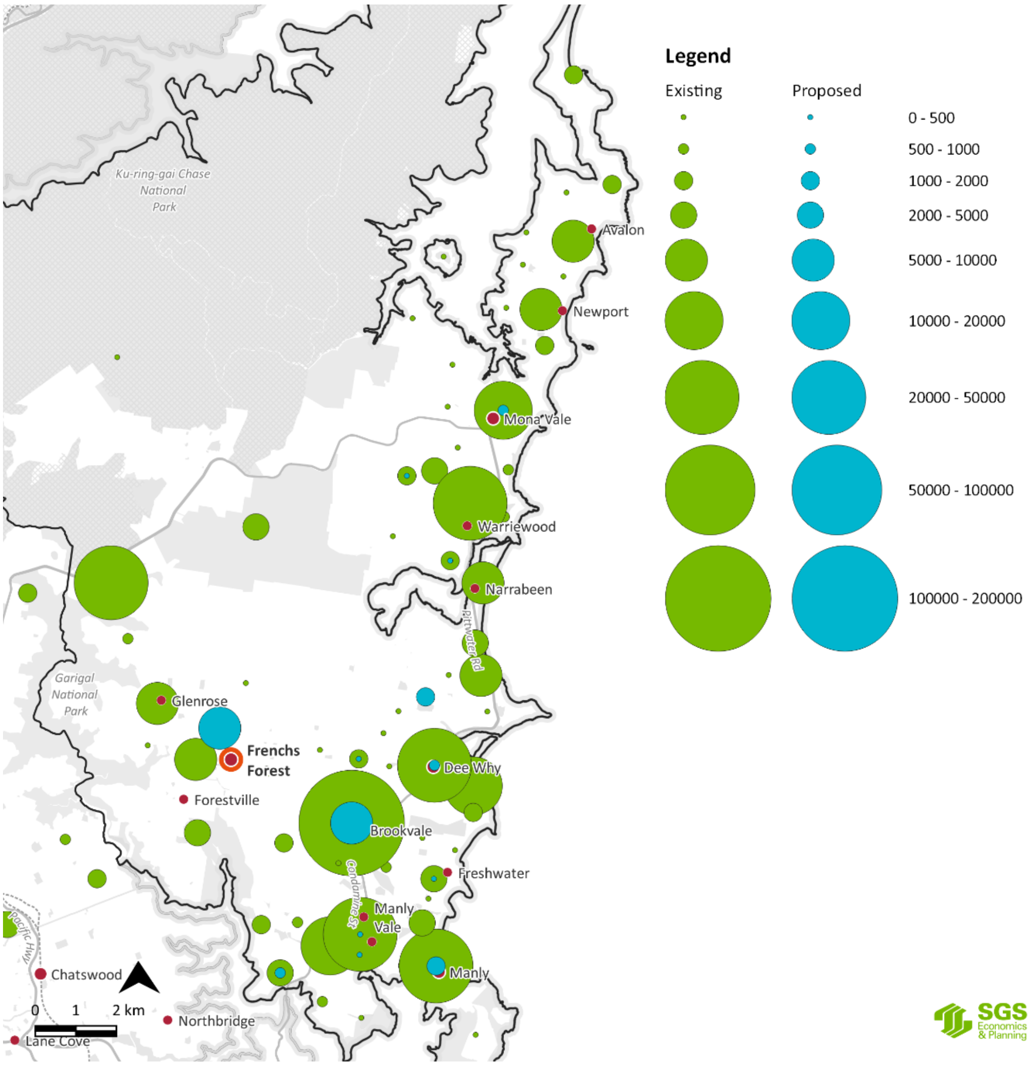
Centre	Address	LGA	Spmkt	Other Food	Hospitality	Clothing	House.Goods	Other Retail	Dept. Store	Total
Cromer	180 South Creek Rd, Wheeler Heights	**2021**	2	-	-	1,014	-	-	-	1,017
Manly	46-58 The Corso, Manly	**2021**	153	105	41	277	1	205	2	783
Gordon	836-840 Pacific Hwy, Gordon*	**2021**	211	36	49	88	131	96	7	617
Seaforth	42 Ethel St Sydney Rd, Seaforth	**2021**	92	111	32	350	-	-	-	586
Balgowlah	404 Sydney Rd, Balgowlah	**2021**	224	94	19	47	6	74	4	468
Manly	36-46 Sydney Rd, Manly	**2021**	90	62	24	162	-	120	1	459
Out of Centre[#]	55 Kalang Rd, Elanora Heights	**2021**	76	76	-	29	-	16	-	197
Freshwater	9-15 Lawrence St, Freshwater	**2021**	80	29	6	40	-	30	-	185
Manly West Park	22-26 Roseberry St, Balgowlah	**2021**	53	-	3	4	92	6	6	164
Gordon	916 Pacific Hwy, Gordon*	**2021**	30	5	7	12	18	13	1	86
Freshwater	21 Lawrence St, Freshwater	**2021**	28	10	2	14	-	11	-	65
Mona Vale	1753 Pittwater Rd, Mona Vale	**2021**	22	6	2	4	3	13	1	50
Manly	70 The Corso, Manly	**2021**	8	5	2	14	-	10	-	40
Turramurra	1295 Pacific Hwy, Turramurra*	**2021**	20	3	1	1	-	8	-	34
Brookvale	145 Old Pittwater Rd, Brookvale	**2026**	1,761	582	728	295	778	1,874	3,830	9,847
Lindfield	305-311 Pacific Hwy, Lindfield*	**2026**	3,800			3,452		850	-	8,102
Forest Way	Forest Wy, Frenchs Forest	**2026**	32	6	11	5,877	-	10	-	5,936
Mona Vale	19 Bungan St, Mona Vale	**2026**	407	114	30	77	53	238	11	930
Dee Why	874-878 Pittwater Rd, Dee Why	**2026**	250	93	43	78	11	136	4	615
Turramurra	1319 Pacific Hwy, Turramurra*	**2026**	218	30	13	13	1	84	3	362
Manly West Park	267-269 Condamine St, Manly Vale	**2026**	1	69	4	54	88	55	-	270
Out of Centre[#]	91-93 Mcintosh Rd , Narraweena	**2026**	61	111	1	26	2	27	6	234
Manly	21 Whistler St, Manly	**2026**	36	24	9	64	-	48	-	182
North Narrabeen	1 Gondola Rd, North Narrabeen	**2026**	-	-	-	21	-	124	-	145

Source: SGS Economics and Planning, 2019

* Denotes non-LGA retail centres that are considered part of the Northern Beacehs' retail trade catchment

# Denotes an out-of-centre development that is minor and not likely to have an impact of the main trading centres

FIGURE 74: EXISTING AND PROPOSED FLOORSPACE, NORTHERN BEACHES



Source: SGS Economics and Planning, 2019

8.3 Commercial and industrial floorspace supply

Commercial floorspace is spread across a number of centres and a number of land use zones. The Frenchs Forest business park, under a B7 (Business Park) zone has the largest amount of commercial floorspace in the LGA at 516,000 sqm. Austlink, Dee Why and Manly are the other commercial centres of scale.

Industrial floorspace supply is concentrated predominantly in IN1 (General Industry) zones that reflect the profile of the major industrial precincts such as Brookvale, Cromer and to a lesser extent, Mona Vale. Combined, Brookvale and Cromer have approximately 473,000sqm.

TABLE 93: ESTIMATED COMMERCIAL AND INDUSTRIAL FLOORSPACE BY PRECINCT (2019)

Precinct	Current supply - commercial	Current supply - industrial	current supply - combined
Austlink Corporate Park	397,092	0	397,092
Avalon	35,637	0	35,637
Balgowlah	49,391	0	49,391
Brookvale	182,062	342,989	525,051
Cromer Industrial	0	130,389	130,389
Dee Why	259,894	6,106	266,000
Forestville	30,871	6,703	37,574
Frenchs Forest	516,365	0	516,365
Freshwater	12,425	2,314	14,739
Manly	255,780	0	255,780
Manly Vale	70,462	7,884	78,346
Mona Vale	102,341	83,906	186,247
Narrabeen	72,531	0	72,531
Newport	48,944	0	48,944
Warriewood Activity Centre	59,673	0	59,673
Warriewood Business Park	123,030	56,423	179,453
TOTAL	**2,216,498**	**636,714**	**2,853,213**

Source: SGS Economics and Planning, 2019

8.4 Employment floorspace capacity

Capacity scenario 1: Maximum theoretical capacity

Capacity scenario 1 assumes that any lot that is not currently at its maximum capacity, based on building heights and floorspace ratio controls, would be redeveloped to maximum capacity. It also assumes that it would be built to fully commercial or industrial use under those controls, depending on the appropriate zoning.

This is a theoretical capacity scenario because it is highly unlikely that this type of redevelopment would occur, particularly with developments close to that maximum, due to feasibility constraints.

Capacity scenario 2: Practical capacity

Capacity Scenario 2 again assumes that development is built to full planning control limits, but it is only applied to lots that do not have a serious constraints such as:

- Biodiversity
- Wetlands
- Flooding
- Heritage
- Any identified community uses
- (In Mixed use zones) any building with more than five strata units identified

It also only considers those with significant potential for development uplift under current controls, with only site with less than 50% of total developable area considered. It also applied a limited to the development of commercial floorspace in mixed use zones to account for the competition it would face with residential. It also assumes that in industrial precincts, if there is *any* development on site, then the site would not be considered.

Capacity scenario 3: Conservative (vacant) capacity

Capacity scenario 3 is the most conservative of the three scenarios. This applies the same conditions as per scenario 2, but only to sites identified as vacant.

Capacity summary

Under all three capacity scenarios there is significant additional capacity across the major employment centres and precincts. The Practical capacity scenario, as a reflection of realistic probable development, indicates over 300,000 sqm of additional floorspace, with 20% in Brookvale and a further 15% in Frenchs Forest. While much of that floorspace in Brookvale is industrial, this signals the importance of these two centres in playing a key future role in the economic growth of the Northern Beaches, given both centres' current and future public transport accessibility.

TABLE 94: ESTIMATED COMMERCIAL THEORETICAL CAPACITY BY PRECINCT (2019)

Precinct	Conservative capacity	Practical capacity	Theoretical maximum
Austlink Corporate Park	51,675	104,405	190,378
Avalon	726	1,044	9,538
Balgowlah	1,537	1,718	35,258
Brookvale	8,070	38,227	52,947
Cromer Industrial	0	0	0
Dee Why	8,747	12,048	424,627
Forestville	1,407	1,993	32,085
Frenchs Forest	11,905	45,203	143,228
Freshwater	1,598	2,163	23,926
Manly	352	1,568	5,643
Manly Vale	3,594	11,362	34,612
Mona Vale	327	1,013	45,352
Narrabeen	2,900	3,926	29,583
Newport	2,968	4,485	47,796
Warriewood Activity Centre	0	16,310	82,696
Warriewood Business Park	16,829	40,320	45,882
TOTAL	**112,636**	**285,785**	**1,203,552**

Source: SGS Economics and Planning, 2019

TABLE 95: ESTIMATED INDUSTRIAL THEORETICAL CAPACITY BY PRECINCT (2019)

Precinct	Conservative capacity	Practical capacity	Theoretical maximum
Austlink Corporate Park	0	0	0
Avalon	0	0	0
Balgowlah	0	0	0
Brookvale	24,941	24,941	150,380
Cromer Industrial	7,054	7,054	106,143
Dee Why	0	0	5,118
Forestville	0	0	5,817
Frenchs Forest	0	0	0
Freshwater	287	287	1,318
Manly	0	0	0
Manly Vale	175	175	1,936
Mona Vale	1,334	1,334	36,469
Narrabeen	0	0	0
Newport	0	0	0
Warriewood Activity Centre	0	0	0
Warriewood Business Park	1,670	1,670	26,048
TOTAL	**35,461**	**35,461**	**333,228**

Source: SGS Economics and Planning, 2019

8.5 Insights

Insights for this chapter are summarised in Section 10.3.

9. DEMAND-SIDE ANALYSIS

This chapter examines the demand-side characteristics of Northern Beaches' employment floorspace for commercial, industrial and retail uses and identifies the projected floorspace demand for the LGA.

9.1 Retail demand

Retail Gravity Modelling - Method

A retail gravity model was applied to analyse the future demand and supply of retail across the Northern Beaches LGA and the surrounding local trade area. Gravity modelling simulates where people will spend their money when given the choice of different retail destinations.

The retail gravity model projects future retail spending and floorspace demand in the LGA. 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 small, lower-quality centres that are further away.

The 'attractiveness' of a shopping centre refers to a range of visual and functional attributes. Unlike other gravity models, the SGS model does not explicitly measure 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 to floorspace (in either that centre or surrounding ones) and demand.

The rate at which travel times affect propensities is calibrated to ensure realistic catchments. This is to account for consumers going to alternative shopping centres that are based along major freeways or restricted to others based on natural barriers such as bays and rivers.

Why use a gravity model?

Other 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/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.

Retail Expenditure

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, such as the growing role of online shopping, in addition to factoring in 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.

All retail commodity groups are expected to experience sustained growth. Across Greater Sydney, the highest amount of retail expenditure growth is expected in Supermarkets (71.1%). This is followed by Clothing (68.4%), Hospitality (58.2%) and Other Food (55.4%). Within the Northern Beaches LGA, the highest amount of expenditure growth is expected in Supermarket (42.1%), followed by Clothing (41.7%), Hospitality (33.5%) and Other Food (27.9%).

TABLE 96: RETAIL EXPENDITURE BETWEEN NORTHERN BEACHES AND GREATER SYDNEY

	Northern Beaches			Greater Sydney		
Commodity	2016	2036	%	2016	2036	%
Supermarket	1,150	1,634	42.1%	20,108	34,414	71.1%
Other Food	482	616	27.9%	8,545	13,277	55.4%
Hospitality	307	409	33.5%	4,745	7,505	58.2%
Clothing	487	690	41.7%	7,721	13,005	68.4%
Household Goods	606	710	17.1%	9,393	13,187	40.4%
Other Retail	703	844	20.1%	11,898	17,089	43.6%
Department Store	378	481	27.2%	6,268	9,511	51.7%

Source: SGS Economics and Planning, 2019; Marketinfo, 2018

Gravity modelling allows the ability to convert retail expenditure to an estimate of turnover for each retail centre. When combining turnover with the average turnover per square metre, also known as a Retail Turnover Density, or "RTD", it is possible to estimate floorspace demand for each centre.

Retail Turnover

Retail turnover relates to the amount of consumer expenditure being attracted to a particular centre. Higher retail turnover tends to indicate a larger centre capable of attracting a larger number of consumer expenditure. The gravity model determined that turnover across the Northern Beaches is expected to grow by around 32.3% from 3.2 million in 2016 to 4.2 million in 2036. This is lower than the growth expected to occur across the Sydney Greater Metropolitan Area, which is expected to grow by around 57.2%.

TABLE 97:RETAIL TURNOVER 2016-36 ($MILLIONS)

Location	2016	2021	2026	2031	2036	16-36%
Northern Beaches	3,204.99	3,342.64	3,608.45	3,881.61	4,241.15	32.3%
Sydney GMA	68,678.46	75,550.18	85,660.48	96,223.93	107,988.49	57.2%

Source: SGS Economics and Planning, 2019; Marketinfo, 2018

9.2 Commercial and industrial demand

Method

Step 1: Identifying supply

Commercial demand is identified through a sequence of steps. Firstly, non-retail employment floorspace is identified in the supply-side stage by:

- Identifying total floorspace in each precinct from the supply-side analysis
- Subtracting the identified retail floorspace from the precinct's total supply (as outlined in Section 8.2)
- Subtracting floorspace of buildings within the precinct that have residential strata in them

These sequence of steps results in a net non-retail employment floorspace supply figure.

Step 2: Projecting total floorspace

Next, the jobs growth at the Travel zone level is proportionally applied to the current floorspace figure to project out the estimated demand for additional floorspace. Importantly, this process does not project the following industries:

- Agriculture, forestry and fishing
- Mining
- Retail
- Accommodation and food services
- Education and Training
- Health Care and social assistance
- Other services

This is because retail is accounted for through a separate retail modelling process and health an education uses are excluded to not inflate with growth in school or hospital-related employment.

Employment forecasts only go down to the Travel zone level. As such, the application of this method identifies commercial floorspace at a Travel zone level.

Step 3: Splitting industrial and commercial

Next, in travel zones where there is a mixture of business and industrial zones, the current split between commercial and industrial floorspace identified in the zone-level floorspace supply data is applied to the total floorspace amount. This provides a split of the total floorspace by both commercial and industrial uses, acknowledging that it includes an assumption that such ratios would hold into the future.

Step 4: Floorspace analysis

The floorspace is aggregated up to an LGA level to understand the *total* commercial and industrial supply-demand gap for the Northern Beaches. This step is important because businesses, regardless of their type, are rarely constrained to operating in a single precinct. Additionally, TPA employment forecasts are less accurate at a small area level and are better used as a guide when looking at travel zones.

This approach therefore aggregates this supply-demand gap up to the LGA to enable strategic planning directions to best assign where growth should occur. This is one of the biggest distinctions between this method and the retail modelling, as the retail gravity model assumes that areas of major retail are more likely to pull future retail toward them.

To provide this granularity, the total commercial floorspace for the LGA is then split by population-serving and strategic designations. This is done by applying a population-driven floorspace ratio (identified by SGS through regression analysis of Metropolitan Sydney's employment and population change). This provides a split of the commercial floorspace attributed to local population serving functions and that floorspace that is more business-serving and more footloose in its location.

The population-driven floorspace demand is finally proportionally distributed to centres that are experiencing population-growth around them, based on the level of population growth expected.

Strategic floorspace demand remains at an LGA level and is distributed separately through strategic planning processes.

Industrial land does not have this distinction applied and is reported as demand by zone to assist in a future distribution of floorspace requirement.

Employment growth

While it is anticipated that the Northern Beaches will grow by approximately 21,800 jobs by 2036, employment growth in the Northern Beaches is not consistent across industries. This is due to a number of macro-economic and localised trends that influence how industries change and where these are likely to be accommodated. In an increasingly knowledge-based economy, there is an unsurprising rise projected in knowledge-intensive industries such as Professional, Scientific and Technical Services and Financial and Insurance Services. These industries tend to cluster in commercial centres and is a format and centre type that is not currently a predominant feature in the Northern Beaches. Some of the industries traditionally associated with the Northern Beaches' precincts, such as manufacturing, are expected to decline in terms of jobs. Of note too is an anticipated decline in the number of jobs in Transport, Postal and Warehousing – a freight and logistics-centric industry.

This reduction, however, must be viewed in light of two important factors. Firstly, combined, those two industries are anticipated to comprise 7,500 jobs in the LGA in 2036. Secondly, they are two industries that will be increasingly influenced by automation. As such, while they may reduce in size as employers, their operations may still require location in the LGA's major industrial precincts, particularly with the continued rise in last-mile delivery challenges, just-in-time dispatch and customised fabrication. While certain industrially related industries are projected to decline, others that concentrate in industrial precincts are expected to grow. Utilities, construction and wholesale trade are expected to account for 16% of the LGA's employment in 2036.

TABLE 98: EMPLOYMENT GROWTH BY ANZSIC (16-36)

	2016	2036	16-36	% growth
Agriculture, Forestry and Fishing	485	372	-114	-23%
Mining	54	62	8	14%
Manufacturing	7,825	5,470	-2,355	-30%
Electricity, Gas, Water and Waste Services	658	885	226	34%
Construction	10,980	12,140	1,160	11%
Wholesale Trade	5,583	5,918	335	6%
Retail Trade	13,796	14,968	1,172	8%
Accommodation and Food Services	8,372	10,639	2,267	27%
Transport, Postal and Warehousing	2,516	2,036	-480	-19%
Information Media and Telecommunications	1,836	1,897	61	3%
Financial and Insurance Services	2,148	2,972	825	38%
Rental, Hiring and Real Estate Services	2,397	2,805	408	17%
Professional, Scientific and Technical Services	12,167	18,243	6,076	50%

Administrative and Support Services	4,010	3,896	-114	-3%
Public Administration and Safety	2,872	4,234	1,362	47%
Education and Training	8,664	12,676	4,013	46%
Health Care and Social Assistance	13,762	17,919	4,157	30%
Arts and Recreation Services	2,384	3,412	1,028	43%
Other Services	4,813	6,611	1,798	37%
TOTAL	**105,322**	**127,155**	**21,834**	

Source: SGS Economics and Planning, 2019

The Northern Beaches' various employment precincts all have a wide range of industries that locate in them, including the industrial precincts. As such, the different employment growth rates all indicate a growth in employment out to 2036, albeit at different rates. These growth rates exclude Retail and Health and Education Jobs.

TABLE 99: EMPLOYMENT GROWTH BY PRECINCT (16-36)

	% growth
Austlink Corporate Park	9%
Avalon	31%
Balgowlah	21%
Brookvale	8%
Cromer Industrial	0%
Dee Why	25%
Forestville	26%
Frenchs Forest	14%
Freshwater	23%
Manly	25%
Manly Vale	15%
Mona Vale	22%
Narrabeen	26%
Newport	30%
Warriewood Activity Centre	25%
Warriewood Business Park	6%

Source: SGS Economics and Planning, 2019

Projected floorspace demand by precinct

Projected floorspace, derived by the application of precinct and industry-specific growth rates to future floorspace demand, has been aggregated to land use zones to understand where demand is most acute. This aggregation to land use zones has been done to enable the strategic distribution of floorspace to centres and/or zones where it is considered most appropriate, rather than simply assuming that employment growth derived from historic trends *must* locate in those centres.

Commercial demand

Across the major employment centres and precincts, there is expected to be up to 372,000sqm of additional commercial floorspace required across the LGA by 2036. Much of this demand is projected from existing and established commercial centres such Manly, Frenchs Forest and Dee Why.

TABLE 100: PROJECTED FLOORSPACE (SQM) DEMAND- COMMERCIAL FLOORSPACE BY PRECINCT (16-36)

Precinct	Existing floorspace (sqm) (2019)	Additional demand (16-36) (sqm)	Future floorspace demand – total (2036)	Growth rate % (16-36)
Austlink Corporate Park	397,092	36,835	433,927	9%
Avalon	35,637	11,066	46,703	31%
Balgowlah	49,391	10,158	59,550	21%
Brookvale	182,062	13,704	195,766	8%
Cromer Industrial	0	0	0	0%
Dee Why	259,894	64,832	324,726	25%
Forestville	30,871	7,924	38,796	26%
Frenchs Forest	516,365	72,170	588,535	14%
Freshwater	12,425	2,868	15,293	23%
Manly	255,780	64,226	320,006	25%
Manly Vale	70,462	10,801	81,264	15%
Mona Vale	102,341	22,037	124,378	22%
Narrabeen	72,531	19,086	91,617	26%
Newport	48,944	14,536	63,480	30%
Warriewood Activity Centre	59,673	15,016	74,688	25%
Warriewood Business Park	123,030	6,892	129,922	6%
TOTAL	**2,216,498**	**372,152**	**2,588,651**	

Source: SGS Economics and Planning, 2019

It is important to recognise that the method used to estimate future floorspace demand is based on the growth rates and current employment scale of existing centres. It does not mean that the future demand must be met in the precinct that it is projected from. Strategic planning principles should be applied to this demand to understand which centres or precincts are best suited to accommodating this future growth.

Aggregating this demand to broad floorspace types provides a clear picture on the floorspace demand profile that the Northern Beaches must account for in the future.

There is expected to be demand for approximately 351,000sqm of additional commercial floorspace in the LGA by 2036, of which approximately 20,354sqm is considered population-serving and can be distributed across smaller local centres that have a strong population-serving function (to accommodate accountants, lawyers etc).

It is important to recognise that with commercial floorspace in particular, higher intensity of use can result in more jobs being in the same floorspace if such business models permit, and so this should be used as a guide rather than an absolute. It is also important to recognise whether existing vacant floorspace in various precincts can be used to accommodate this growth without the need to build out to this anticipated demand figure.

TABLE 101: ESTIMATION OF SPLIT BY BROAD COMMERCIAL FLOORSPACE TYPE (EXC. RETAIL)

	Existing floorspace (sqm) (2019)	Additional demand (16-36) (sqm)	Future commercial floorspace demand – total (2036)
Strategic	*2,095,275*	*351,799*	*2,447,073*
Population Serving	*121,224*	*20,354*	*141,577*
TOTAL	**2,216,498**	**372,152**	**2,588,651**

Source: SGS Economics and Planning, 2019

The demand for smaller co-working spaces and the gradual transition to a more professional-serviced aligned local economy means that these commercial figures are considered an upper limit for future demand. To identify a more conservative lower limit, a supplementary piece of analysis has been undertaken to gauge demand that considers a narrower suite of industries and a tight job to floorspace ratio limit of 10sqm. This is more representative of inner-city office suites and co-working space. This indicates that a lower limit of just over 100,000sqm of strategic commercial floorspace across the LGA should be considered.

TABLE 102: LOWER BOUND ESTIMATION OF FUTURE COMMERCIAL FLOORSPACE DEMAND

Relevant industries of employment	LGA Jobs (2016)	LGA Jobs (2036)	change
Financial and Insurance Services	2,148	2,972	825
Rental, Hiring and Real Estate Services	2,397	2,805	408
Professional, Scientific and Technical Services	12,167	18,243	6,076
Administrative and Support Services	4,010	3,896	-114
Public Administration and Safety	2,872	4,234	1,362
Total jobs			**8,557**
Total floorspace (net)			85,571
Total floorspace (gross)*			**106,964**

*This applies an additinoa 20% to account for shared services, stairwells etc

Source: SGS Economics and Planning, 2019

Industrial demand

Across the Northern Beaches' various industrial precincts, there is expected to be demand for an additional 51,000sqm of floorspace by 2036. Half of this is expected to be in Brookvale, and a further 18,000 in Mona Vale. Due to a statistically insignificant decline in jobs in Cromer expected by 2036 (a reduction in fewer than ten jobs), there is anticipated to be a minor reduction of job-derived floorspace demand. This should be considered in light of overall reduction in jobs in certain industrial sectors due to automation, not due to the decline in the need for industrial floorspace. Demand for industrial floorspace could drive an increasing uptake of industrial uses in the B7 zones.

TABLE 103: PROJECTED FLOORSPACE (SQM) DEMAND- INDUSTRIAL FLOORSPACE BY PRECINCT (16-36)

Precinct	Existing floorspace (sqm) (2019)	Additional demand (16-36) (sqm)	Future floorspace demand – total (2036)	Growth rate % (16-36)
Austlink Corporate Park	0	0	0	9%
Avalon	0	0	0	31%
Balgowlah	0	0	0	21%
Brookvale	342,989	25,817	368,806	8%
Cromer Industrial	130,389	-380	130,009	0%
Dee Why	6,106	1,523	7,629	25%
Forestville	6,703	1,721	8,424	26%
Frenchs Forest	0	0	0	14%
Freshwater	2,314	534	2,848	23%
Manly	0	0	0	25%
Manly Vale	7,884	1,208	9,092	15%
Mona Vale	83,906	18,068	101,974	22%
Narrabeen	0	0	0	26%
Newport	0	0	0	30%
Warriewood Activity Centre	0	0	0	25%
Warriewood Business Park	56,423	3,161	59,584	6%
TOTAL	**636,714**	**51,652**	**688,366**	**9%**

Source: SGS Economics and Planning, 2019

With regards to the IN4 (Working Waterfront) land the majority of the uses in this precinct are likely to come under a manufacturing designation, which as an ANZSIC Classification, is projected to decline. However, given the specialised nature of these precinct, serving an Eastern Seaboard market, it is not anticipated that there will be a decline in this function, and this has therefore not been factored in. As such, it is assumed that the applicable growth rate is 0%, and therefore the additional floorspace demand is zero sqm.

9.3 Insights

Insights for this chapter are summarised in Section 0.

10. FLOORSPACE GAP

10.1 Retail gap

The results of the retail modelling indicate that there is expected to be a retail gap of around 36,300 sqm by 2036. Between 2016 and 2026, supply is expected to have a higher annual average growth rate of around 2.61%, compared with demand which is expected to grow annually by around 1.84%.

After 2026, there is no recorded supply expected to be coming online. As such, there is expected to be sufficient floorspace of around 0.69 hectares in 2026.

TABLE 104: RETAIL GAP, NORTHERN BEACHES LGA

	2021	2026	2031	2036	AAGR 16-26	AAGR 16-36
Supply	428,961	447,053	447,053	447,053	2.61%	1.30%
Demand	420,748	440,168	460,330	483,289	1.84%	3.31%
Gap	**8,213**	**6,885**	-13,321	-36,317		
Gap (hectares)	**0.82**	**0.69**	-1.33	-3.63		

Source: SGS Economics and Planning, 2019

Retail Gap by Centre

Across the various centres, Brookvale (and particularly Warringah Mall) is expected to experience the highest retail gap of around 8,600 sqm by 2036. This is not expected to occur until around 2031, where it is expected to see a gap emerge. Other centres with future retail gaps include Warriewood (-5,421 sqm), Forest Way Shopping Centre (-3,166 sqm), Mona Vale (-2,769sqm) and Pacific Parade (-2,173sqm).

Warriewood is estimated to have the highest amount of immediate retail gap of around 1,000sqm as of 2021, which steadily rises to a gap of around 5,421 sqm by 2036.

TABLE 105: RETAIL GAP, NORTHERN BEACHES LGA BY CENTRE

Centre	Gap 2021	Gap 2026	Gap 2031	Gap 2036
Brookvale	1,262	2,584	-4,195	-8,569
Warriewood	-1,116	-1,515	-3,157	-5,421
Forest Way Shopping Centre	-74	1,384	-1,075	-3,166
Mona Vale	-138	169	-994	-2,769
Pacific Parade	438	82	667	-2,173
Glenrose Village	-263	-675	-1,462	-1,994
Balgowlah Oval	30	-234	-206	-1,485
North Narrabeen	78	-310	-850	-1,330
Manly	1,424	1,035	405	-1,304
Dee Why Surf Club	92	-205	-289	-1,143
Avalon Beach	263	40	-426	-1,132
Total	**2,258**	**2,372**	**-12,048**	**-30,488**

Source: SGS Economics and Planning, 2019

Breaking down the retail gap across the various retail commodity groups finds that there is expected to be a retail shortage of around 12,685sqm of Supermarket floorspace, followed by Clothing and Soft Goods (9,851sqm), Department Store (4,119 sqm) and Hospitality (3,857sqm). No shortage in Household Goods is expected, with an estimated surplus of around 1,722 sqm.

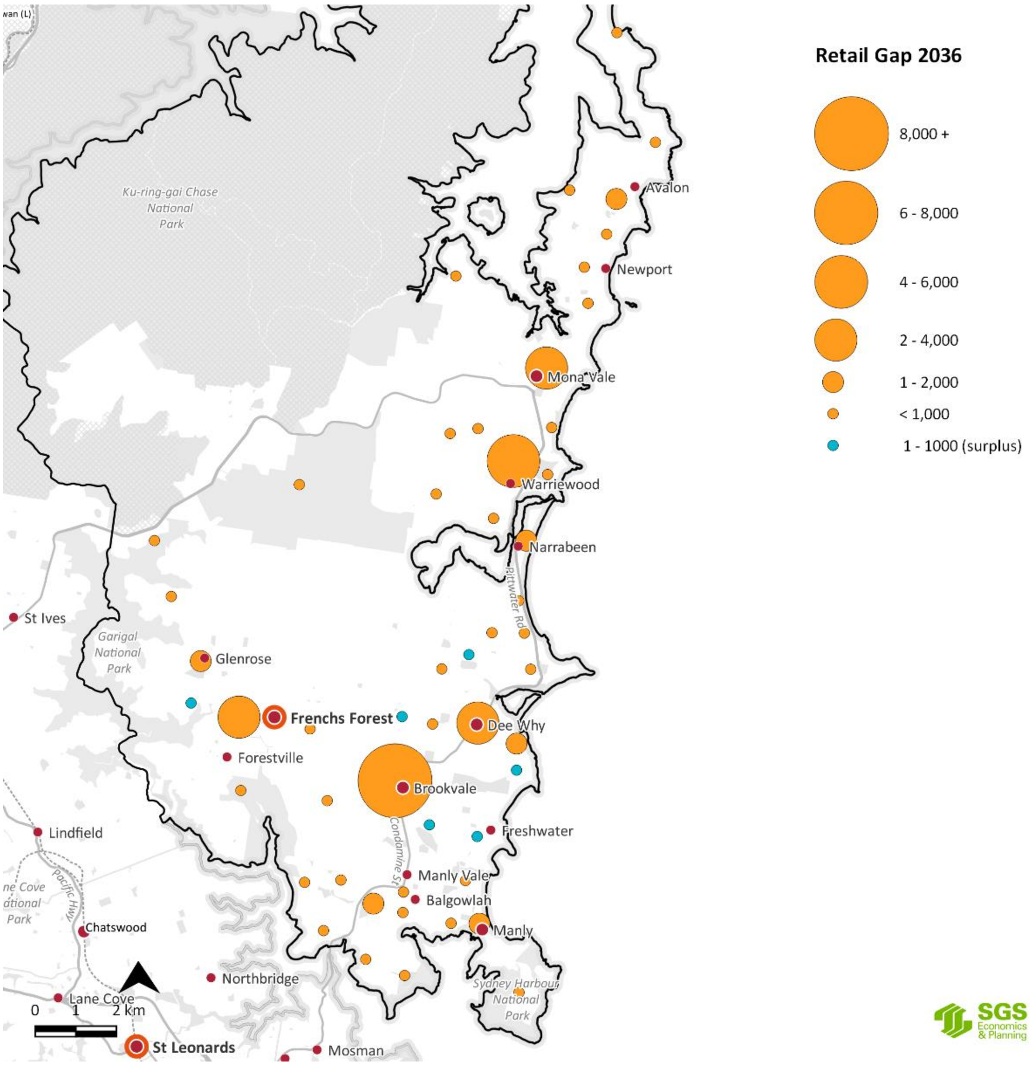
The most significant commodity shortages are estimated to be found at Warriewood (Supermarket, Other Food, Other Retail) and Warringah Mall (Clothing and Soft Goods, Department Store).

TABLE 106: TOP 10 RETAIL CENTRES, NORTHERN BEACHES AND KU-RING-GAI

Centre	Supermarket	Other Food	Hospitality	Clothing	House.Goods	Other Retail	Dept. Store	Total
Brookvale	- 1,910	- 207	- 391	- 5,603	1,513	972	- 2,943	- 8,569
Warriewood Square	- 2,542	- 157	- 175	- 1,258	- 56	- 176	- 1,056	- 5,421
Forest Way Shopping Centre	- 2,132	- 434	373	- 511	-	- 463	-	- 3,166
Mona Vale	- 803	- 390	- 881	- 684	30	- 41	-	- 2,769
Pittwater Rd/Pacific Parade	- 1,043	- 255	- 672	- 330	210	- 23	- 59	- 2,173
Glenrose Village	- 1,712	- 50	- 94	- 149	-	12	-	- 1,994
Balgowlah Oval	- 1,060	- 144	- 165	- 204	76	12	-	- 1,485
North Narrabeen	- 561	- 125	- 432	- 64	- 72	- 76	-	- 1,330
Manly	- 69	- 145	- 677	- 549	- 10	205	- 61	- 1,304
Dee Why Surf Club	- 802	- 110	- 200	- 78	4	42	-	- 1,143
Avalon Beach	- 51	- 112	- 542	- 421	27	- 33	-	- 1,132
Total	**-12,685**	**-2,128**	**-3,857**	**-9,851**	**1,722**	**431**	**-4,119**	**-30,488**

Source: SGS Economics and Planning, 2019

FIGURE 75: PROJECTED RETAIL GAP, 2036



Source: SGS Economics and Planning, 2019

Frenchs Forest planned precinct floorspace scenario

A scenario was developed measuring the impact of the proposed neighbourhood centre at Frenchs Forest in 2021. Under this scenario, the floorspace gap in 2036 decreases from 3.63 hectares to 27,000 sqm.

TABLE 107: RETAIL GAP, NORTHERN BEACHES LGA

Column heading	2021	2026	2031	2036	AAGR 16-26	AAGR 16-36
Supply	443,512	461,604	461,504	461,504	4.25%%	2.12%
Demand	433,769	444,478	466,507	488,574	2.30%	3.57%
Gap	9,744	17,125	-5,003	-27,070		
Gap (hectares)	0.97	1.71	-0.50	-2.71		

Source: SGS Economics and Planning, 2019

SGS determines the impact of the arrival of a new centre on existing centres by the change in turnover. A general benchmark is that any turnover change that is greater than 10% constitutes an impact on nearby centres.

The introduction of the Frenchs Forest centre impacts two very small retail precincts: Estelle Place and Allambie Heights Oval. Impact is also felt at Forest Way Shopping Village and Poplar Lane, though both of these are less than 10% impact (the generally accepted threshold for negative impact on other centres).

The table below identifies the centres expected to be most impacted by the proposed retail floorspace at the Northern Beaches hospital.

TABLE 108: IMPACT OF FRENCHS FOREST RETAIL CENTRE

Impacted retail precinct	2021 Turnover Impact (arrival of centre)
Allambie Heights Oval	15.0%
Estelle Place	14.1%
Poplar Lane	7.9%
Forest Way Shopping Centre	7.1%

Source: SGS Economics and Planning, 2019

Under the proposed floorspace provision, the nearby Forestway shopping centre will have some negative trade impact but not above the 10% threshold.

10.2 Commercial and industrial gap

The developed nature of the Northern Beaches' employment precincts means that there are few vacant sites in the LGA that would naturally provide commercial or industrial floorspace capacity. As a consequence, the conservative capacity scenarios show a lack of capacity in many established employment zones. More development-focused scenarios indicate more capacity to accommodate future employment growth.

TABLE 109: COMMERCIAL FLOORSPACE GAP BY PRECINCT UNDER DIFFERENT CAPACITY SCENARIOS

Precinct	Conservative	Practical	Max. Theoretical
Austlink Corporate Park	14,840	0	153,543
Avalon	-10,340	-10,022	-1,528
Balgowlah	-8,621	-8,440	25,099
Brookvale	-5,634	24,524	39,243
Cromer Industrial	0	0	0
Dee Why	-56,084	-52,784	359,796
Forestville	-6,518	-5,931	24,161
Frenchs Forest	-60,265	-26,966	71,058
Freshwater	-1,271	-706	21,057
Manly	-63,874	-62,659	-58,583
Manly Vale	-7,207	561	23,811
Mona Vale	-21,710	-21,025	23,315
Narrabeen	-16,187	-15,161	10,497
Newport	-11,567	-10,051	33,260
Warriewood Activity Centre	-15,016	1,295	67,680
Warriewood Business Park	9,937	33,428	38,990
TOTAL	**-259,516**	**-153,937**	**831,400**

Source: SGS Economics and Planning, 2019

TABLE 110: INDUSTRIAL FLOORSPACE GAP BY PRECINCT UNDER DIFFERENT CAPACITY SCENARIOS

Precinct	Conservative	Practical	Max. Theoretical
Austlink Corporate Park	0	0	0
Avalon	0	0	0
Balgowlah	0	0	0
Brookvale	-876	-876	124,563
Cromer Industrial	7,434	7,434	106,523
Dee Why	-1,523	-1,523	3,595
Forestville	-1,721	-1,721	4,097
Frenchs Forest	0	0	0
Freshwater	-247	-247	783
Manly	0	0	0
Manly Vale	-1,034	-1,034	728
Mona Vale	-16,734	-16,734	18,401
Narrabeen	0	0	0
Newport	0	0	0
Warriewood Activity Centre	0	0	0
Warriewood Business Park	-1,490	-1,490	22,887
TOTAL	**-16,191**	**-16,191**	**281,577**

Source: SGS Economics and Planning, 2019

10.3 Insights

These insights come from the Supply, Demand and Gap Analysis chapters of this report.

- **Warringah Mall is the largest retail centre.** The largest centre is Warringah Mall, estimated at around 135,211 sqm, followed by the Belrose Super Centre (44,786sqm) and Warriewood (27,740sqm). This reflects the Malls' B3 zone and its role as a retail and entertainment destination across the Northern Beaches and North Shore.
- **Expectation of future retail floorspace supply.** It is anticipated that around 31,374 sqm of additional retail floorspace will be coming online by 2026, across expansions of Warringah Mall and the development of new mixed-use developments such as at Wheeler Heights.
- **Commercial floorspace spread across 16 key precincts**. There is an estimated 2.2 million sqm of commercial floorspace across Northern Beaches' 16 major employment centres and precincts, with Frenchs Forest accounting for over 40%.
- **Industrial floorspace spread across 8 key precincts.** There is an estimated 636,700 sqm of industrial floorspace across eight major precincts. Brookvale, Cromer and Mona Vale account for nearly 90% of floorspace and are very important precincts both at an LGA and District level, particularly for local services and construction sector supply chains.
- **Capacity varies across all precincts.** All precincts, regardless of size, have some degree of additional capacity to meet future employment growth. Much of this, however, is theoretical, and would require the redevelopment of existing sites to increase floorspace.
- **Industries are expected to grow at different rates in different places.** Across the Northern Beaches, there is an estimated 21,800 additional jobs expected by 2036. These projections reflect a transitioning industry profile, with a decline in manufacturing and freight and logistics jobs, and a rise in knowledge sector and population serving jobs. Future floorspace supply needs to ensure that these different trends are provided for in future development.
- **Commercial floorspace demand.** Due to the floorspace flexibility of different office-based jobs, there is expected to be a range of between 100,000 and 370,000 sqm of additional commercial floorspace required across the LGA by 2036. Of that upper bound of 372,000 sqm, approximately 20,000sqm of that floorspace is expected to be population-serving in nature and could be distributed across many of the LGA's smaller centres based on areas of population growth. The remainder should be concentrated in centres strategically placed to grow as commercial centres.
- **Industrial floorspace demand.** There is an expected future demand for approximately 51,600sqm of industrial floorspace across the LGA by 2036. While much of this demand emanates from Brookvale, it could be distributed across any of the LGA's industrial precincts.
- **Retail demand will drive the need for more floorspace.** Future population growth will drive the need for additional retail floorspace across the LGA. By 2036, it is anticipated that there will be an undersupply of approximately 30,500sqm of retail floorspace across the LGA.
- **Capacity to meet future demand varies across precincts.** Under a conservative capacity scenario, there is an estimated deficit of 275,700sqm of floorspace, while a mor practical mid-point indicates a deficit of 100,000sqm, with 60% of this in Manly. Frenchs Forest shows a deficit of around 26,000sqm but this is similar to the current vacant floorspace estimates in the precinct.

- **Floorspace demand will range with business types.** While an upper limit of floorspace demand has been identified of 372,152 sqm of commercial, this does not consider the repurposing of existing vacant floorspace. Nor does it consider that floorspace intensity may increase, particularly with small office-based businesses. These factors coupled with the strategic distribution of future commercial floorspace and the targeted changes to planning controls should provide a diversity of floorspace types within future development to support future businesses.

11. LEP REVIEW

This section provides advice regarding the harmonisation of the Warringah, Manly and Pittwater LEPs into the consolidated Northern Beaches LEP.

11.1 LGA-wide review and recommendations

An overview of the location of each zone in the Northern Beaches LGA is provided and a summary of the differences between the three LEP permissible uses, as is applicable. These are highlighted in green (where there is consistency) and red (where there are discrepancies). Recommendations have then been provided where considered appropriate in the context of employment uses. This builds on work undertaken by Northern Beaches Council prior to the commencement of the Employment Study.

A more comprehensive review of the differences between the three current LEPs is provided in : Austlink sub-industry change, 2011-16 (POW)

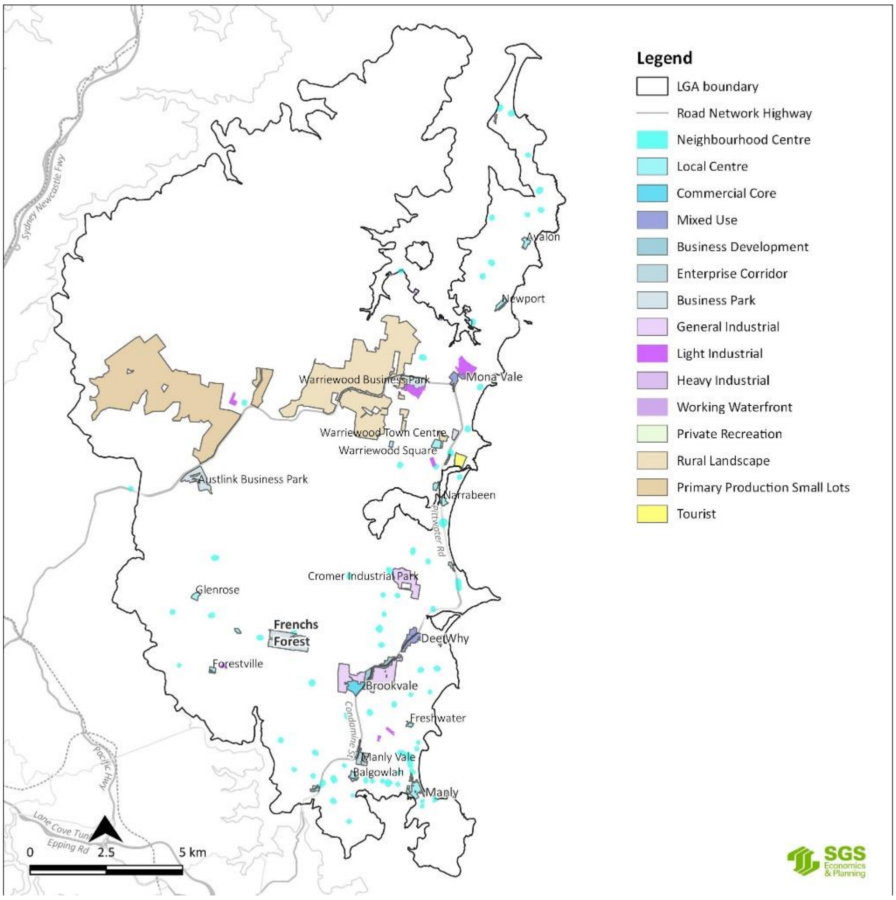
Industry	Sub-industry	2011 Jobs	2016 Jobs	Change 2011-16
Manufacturing	Manufacturing, nfd	29	35	6
	Food Product Manufacturing, nfd	21	22	1
	Other Food Product Manufacturing	3	48	45
	Printing and Printing Support Services	14	7	-7
	Pharmaceutical and Medicinal Product Manufacturing	31	54	23
	Cleaning Compound and Toiletry Preparation Manufacturing	4	28	24
	Glass and Glass Product Manufacturing	0	6	6
	Basic Ferrous Metal Manufacturing	7	3	-4
	Other Transport Equipment Manufacturing	11	14	3
	Machinery and Equipment Manufacturing, nfd	3	5	2
	Professional and Scientific Equipment Manufacturing	26	33	7
	Computer and Electronic Equipment Manufacturing	95	9	-86
	Electrical Equipment Manufacturing	17	4	-13
	Other Machinery and Equipment Manufacturing	175	206	31
	Furniture Manufacturing	3	5	2
	Other Manufacturing	7	3	-4
Professional, Scientific and	Professional, Scientific and Technical Services, nfd	0	3	3
	Scientific Research Services	3	10	7
	Architectural Services	15	10	-5
	Engineering Design and Engineering Consulting Services	25	34	9
	Other Specialised Design Services	9	14	5
	Legal Services	3	20	17

Technical Services	Accounting Services	32	45	13
	Advertising Services	27	12	-15
	Market Research and Statistical Services	8	4	-4
	Management Advice and Related Consulting Services	23	35	12
	Computer System Design and Related Services	355	281	-74

Source: ABS Census TableBuilder (2011, 16)

Appendix 5 – LEP comparisons.

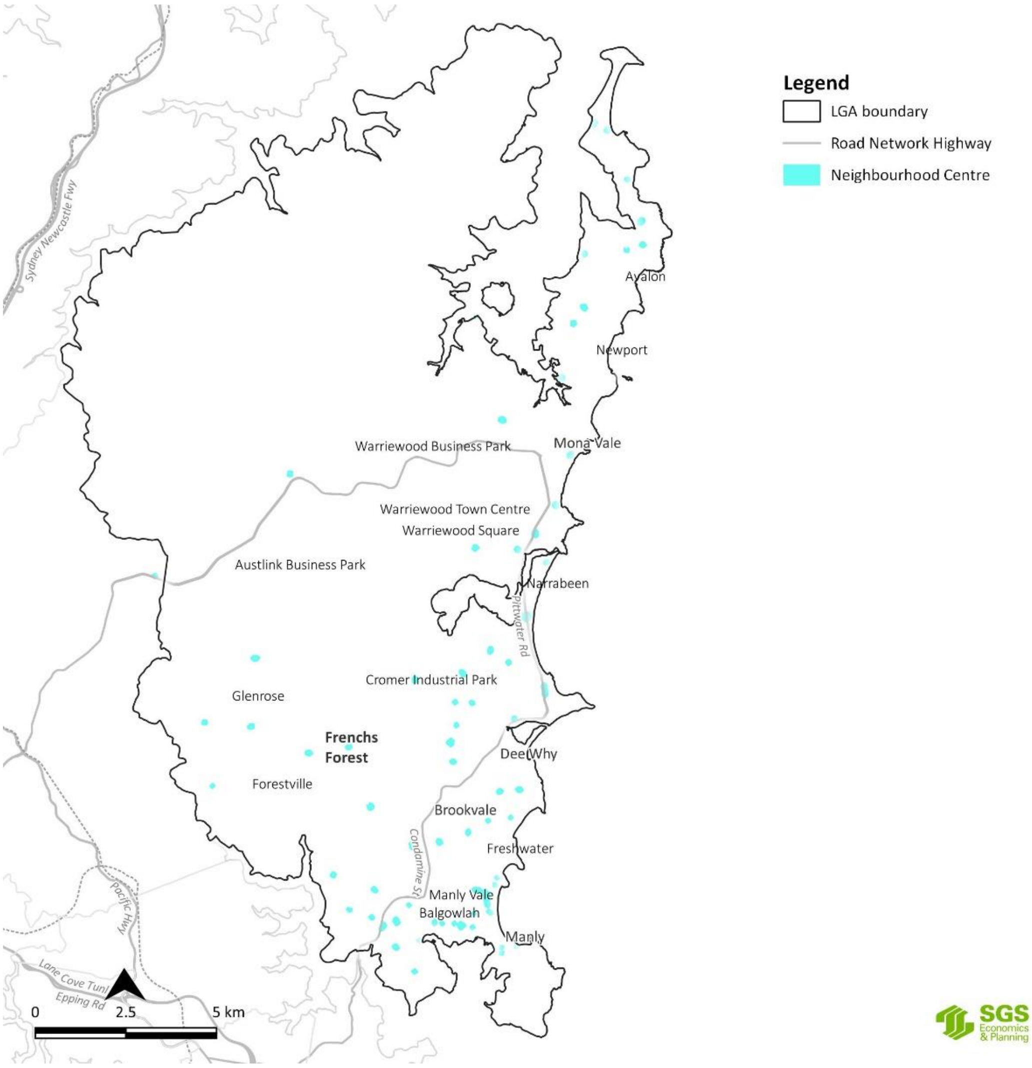
FIGURE 76: LEP ZONE MAP OF NORTHERN BEACHES' EMPLOYMENT ZONES



Source: SGS 2019 using LZN16

B1 Neighbourhood Centre

FIGURE 77: LOCATION OF B1 ZONES



Source: SGS 2019 using LZN16

Summary of LEP consistency

LGA	Zone applicable?
Manly LEP	
Warringah LEP	
Pittwater LEP	

The Standard instrument identifies the following objectives for the B1 zone:

- To provide a range of small-scale retail, business and community uses that serve the needs of people who live or work in the surrounding neighbourhood.

In addition, the following have been added to some or all of the zone objectives:

- To ensure that neighbourhood centres provide a village-like atmosphere and safety and comfort for pedestrians (Warringah)
- To minimise conflict between land uses in the zone and adjoining zones and ensure the amenity of any adjoining or nearby residential land uses (Warringah)
- To provide healthy, attractive, vibrant and safe neighbourhood centres (Pittwater).

Inter-LEP zone inconsistencies

TABLE 111: B1 ZONE INCONSISTENCIES

Inconsistency	Land uses
Permitted in MLEP + WLEP (default) but not in PLEP	Carparks; Flood mitigation works; Group homes; Home businesses; Hostels; Office premises; Places of public worship; Public administration building
Permitted in MLEP, but not in WLEP or PLEP	Environmental facilities; Service stations; Water recycling facilities; Water supply systems
Permitted in WLEP, but not in MLEP or PLEP	Food and drink premises
Permitted in MLEP and PLEP, but not in WLEP	Information and education facilities; Recreation facilities (indoor)

Source: SGS, 2019

Proposed zone intent

The B1 (neighbourhood centre) zone should identify the local convenience and community amenity role of centres with the B1 zone. This should include a focus on supporting pedestrian-priority public domain, accessibility and safety.

Recommendations

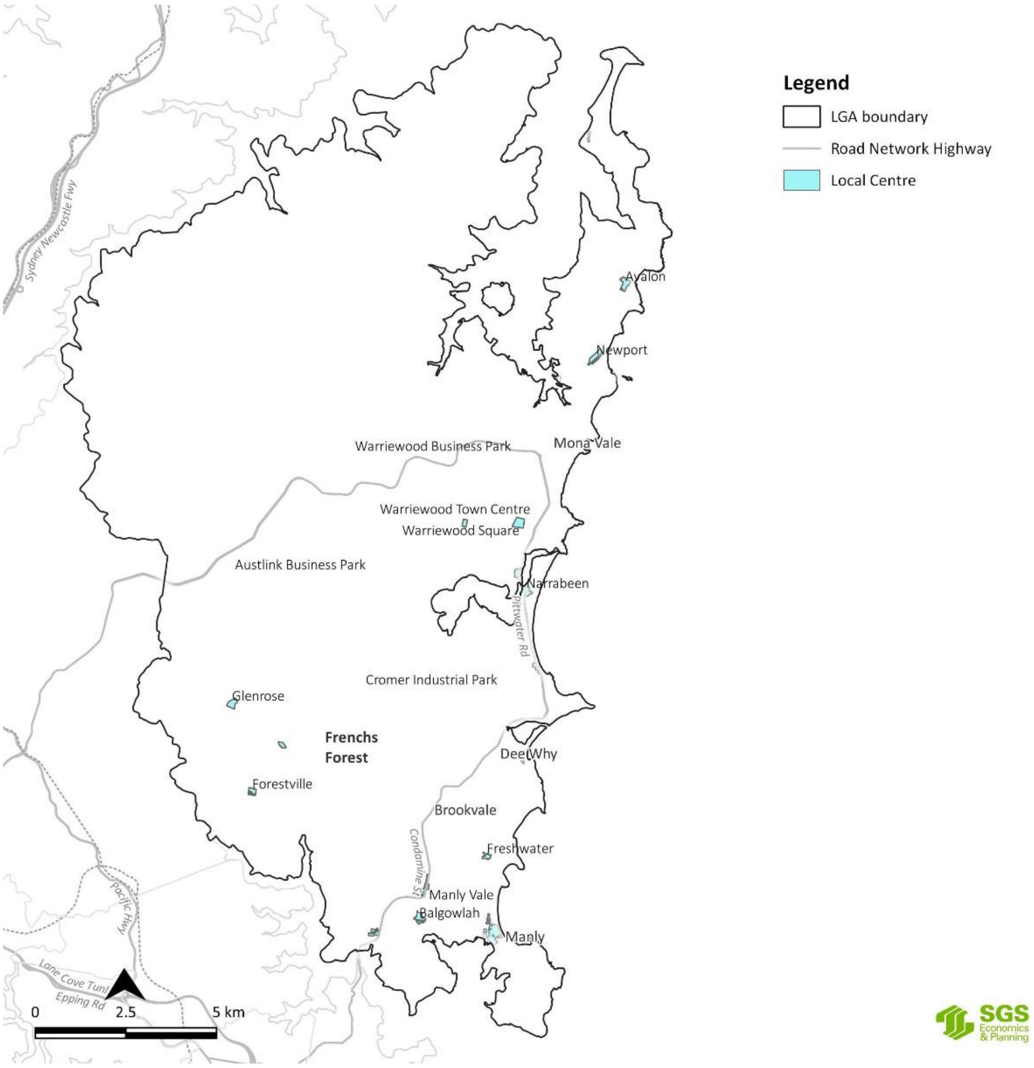
TABLE 112: RECOMMENDATION

Action	Rationale
Adopt closed zone approach to prohibit 'Any other development not specified in item 2 or 4'	To minimise the long list provided in the Warringah LEP
Add additional objective to standard instrument objective that identifies the need for neighbourhood centres to be people-centric – with a focus on safety (particularly the interface between cars and public domain) and accessibility. This could be a consolidation of key points in the three additional objectives noted above.	Neighbourhood centres are reliant upon car access for convenience. This is not likely to change, however a focus on pedestrian quality and safety will help to inform any future developments within neighbourhood centres.
Amalgamate all existing permissible uses	There are no identified permissible uses that cause concern about being permitted in B1 zones.

Source: SGS, 2019

B2 Local Centre

FIGURE 78: LOCATION OF B2 ZONES



Source: SGS 2019 using LZN16

Summary of LEP consistency

LGA	Zone applicable?
Manly LEP	
Warringah LEP	
Pittwater LEP	

The Standard instrument identifies the following objectives for the B2 zone:

- To provide a range of retail, business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area.
- To encourage employment opportunities in accessible locations.
- To maximise public transport patronage and encourage walking and cycling.

In addition, the following have been added to some or all of the zone objectives:

- To minimise conflict between land uses in the zone and adjoining zones and ensure amenity for the people who live in the local centre in relation to noise, odour, delivery of materials and use of machinery (Manly)

- To provide an environment for pedestrians that is safe, comfortable and interesting (Warringah)
- To create urban form that relates favourably in scale and in architectural and landscape treatment to neighbouring land uses and to the natural environment (Warringah)
- To minimise conflict between land uses in the zone and adjoining zones and ensure the amenity of any adjoining or nearby residential land uses (Warringah)
- To provide healthy, attractive, vibrant and safe local centres (Pittwater)
- To strengthen the role of centres as places of employment (Pittwater)
- To provide an active day and evening economy (Pittwater)
- To provide for residential uses above street level where they are compatible with the characteristics and uses of the site and its surroundings (Pittwater)

Inter-LEP zone inconsistencies

TABLE 113: B2 ZONE INCONSISTENCIES

Inconsistency	Land uses
PLEP	Allows home business ***without consent***
MLEP + WLEP	Allow home-based childcare ***without consent***
MLEP, but not in PLEP + WLEP	Boatsheds
MLEP + PLEP, but not in WLEP	Carparks
MLEP + WLEP (default), but not in PLEP	Flood mitigation work; Group homes; Health consulting rooms; Home businesses; Hostels; Water recycling facilities; Water supply systems
PLEP + WLEP (default), but not in MLEP	Home-based childcare Horticulture; Places of public worship; Public administration buildings; Recreation areas
PLEP, but not in MLEP + WLEP	Sex services premises

Source: SGS, 2019

Proposed zone intent

The B2 zone is applies to the majority of the Northern Beaches' centres. Broadly, it has a consistent application in terms of the scale and function the various centres. It covers both traditional town centres (those along or set back from arterial roads – such as Seaforth, Avalon and Newport) and standalone shopping centres (such as Forestway and Warriewood). The main outlier in the B2 centres is Manly, given its major tourism focus.

The B2 zone should support a range of commercial, retail, community and entertainment functions to support the surround residential and local worker populations. While these centres are likely to be accessed by car as well as public transport, their identity should prioritise pedestrian safety, movement and interaction. They should be appropriate scaled (both in built form and public realm) to provide comfortable places for people to dwell and respond to adjacent natural or built land uses. They should also facilitate, where practical and appropriate, evening economy uses.

Recommendations

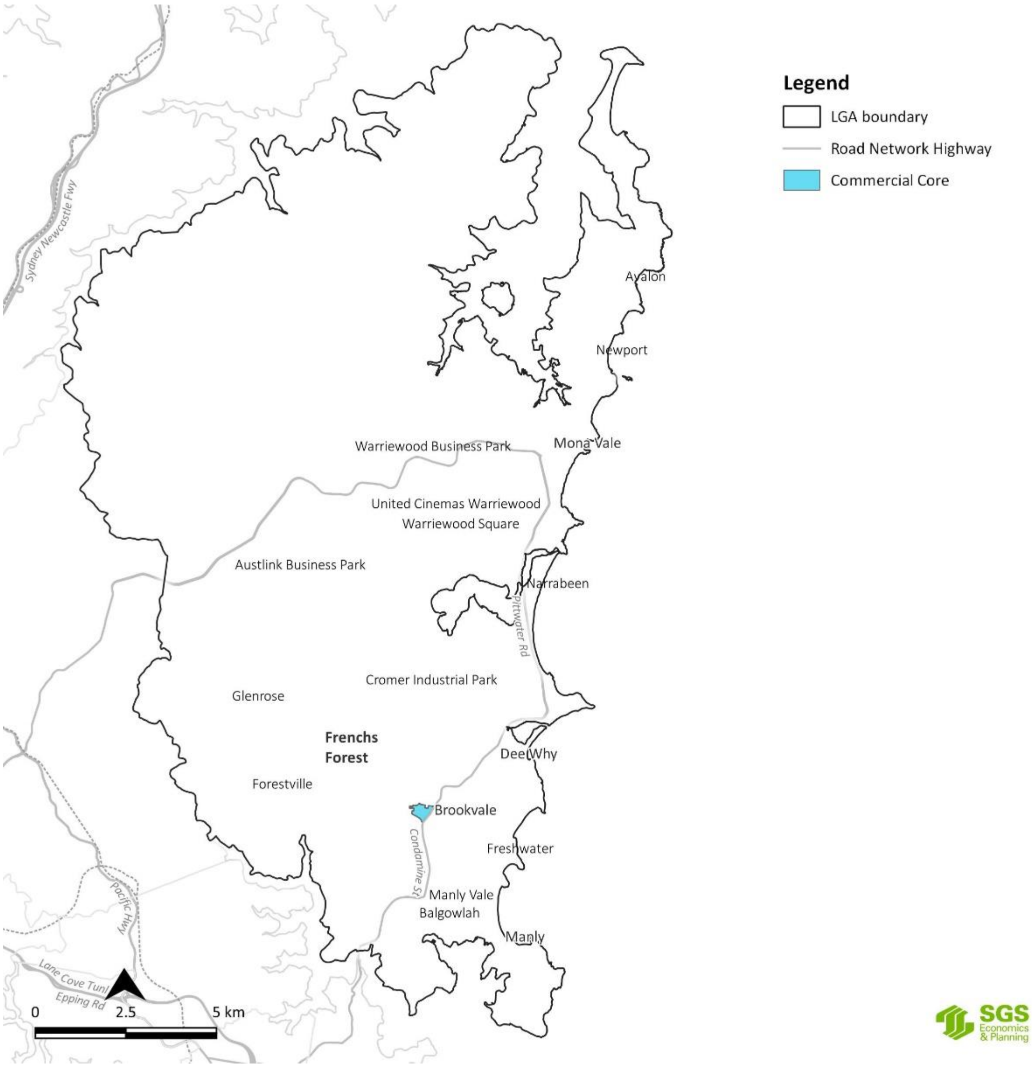
TABLE 114: RECOMMENDATION

Action	Rationale
Permit home-base childcare without consent	To ensure consistency across all three LEPs. These facilities benefit from convenient locations near to public transport.
Permit without consent Home business	To provide consistency across three LEPs and to acknowledge that the subtle difference between home business and Home Occupation isn't necessary in these centres. This reflects the strategic focus on providing support to all local and emerging small businesses across the LGA.
Permit water recycling facilities and water supply systems	Encourage, where appropriate, local water networks as part of circular economy aspirations
Amalgamate all existing permissible uses	Beyond those explicitly identified, there are no concerns regarding the permissible uses being combined in the harmonised LEP
Adopt closed zone approach to prohibit 'Any other development not specified in item 2 or 4'	To minimise the long list provided in the Warringah LEP
Retain B2 zone for Manly	It isn't a commercial centre and broader 'tourism' zone (SP3) would require significant review of land value implications for no material benefit that the B2 zone doesn't already provide.
Include select industrial uses that are compatible with other centre uses and can add to the vitality of a centre. These may include Light industries such as 'Artisan food and drink' and 'Vehicle repair stations'	Local retail in certain centres is under-performing (for example, Avalon). Certain light industries such as breweries and food manufacturing can, if appropriately designed, provide alternative uses to traditional ground floor uses and encourage businesses that support evening and weekend economy functions while aligning with traditional centre functions such as restaurants. The inclusion of uses such as Vehicle repair stations recognises that these businesses often existing in or on the periphery of local centres. They are able to control noise and smell and provide a convenient place for residents to drop cars while being able to access public transport.
Add additional objective to standard instrument objective that identifies: - the need for local centres to be people-centric – with a focus on safety (particularly the interface between cars and public domain) and accessibility. - to encourage, where appropriate, weekend and evening economy functions - to create urban form that relates favourably in scale and in architectural and public domain treatment to neighbouring land uses and to the natural environment	These distil the key themes from the three separate LEP's additional objectives.

Source: SGS, 2019

B3 Commercial Centre

FIGURE 79: LOCATION OF B3 ZONES



Source: SGS 2019 using LZN16

Summary of LEP consistency

LGA	Zone applicable?
Manly LEP	
Warringah LEP	
Pittwater LEP	

The Standard instrument identifies the following objectives for the B2 zone:

- To provide a wide range of retail, business, office, entertainment, community and other suitable land uses that serve the needs of the local and wider community.
- To encourage appropriate employment opportunities in accessible locations.
- To maximise public transport patronage and encourage walking and cycling.

In addition, the following have been added to the Warringah LEP zone objectives:

- To recognise and support the role of Warringah Mall as a retail centre of sub-regional significance.

Inter-LEP zone inconsistencies

As the B3 zone only applies in the Warringah LEP, there are no inter-LEP inconsistencies

Proposed zone intent

The B3 zone signifies a major commercial centre for the Northern Beaches. It is appropriate that this covers Brookvale's Warringah Mall as one of the major destinations for residents both within and outside of the LGA.

Recommendations

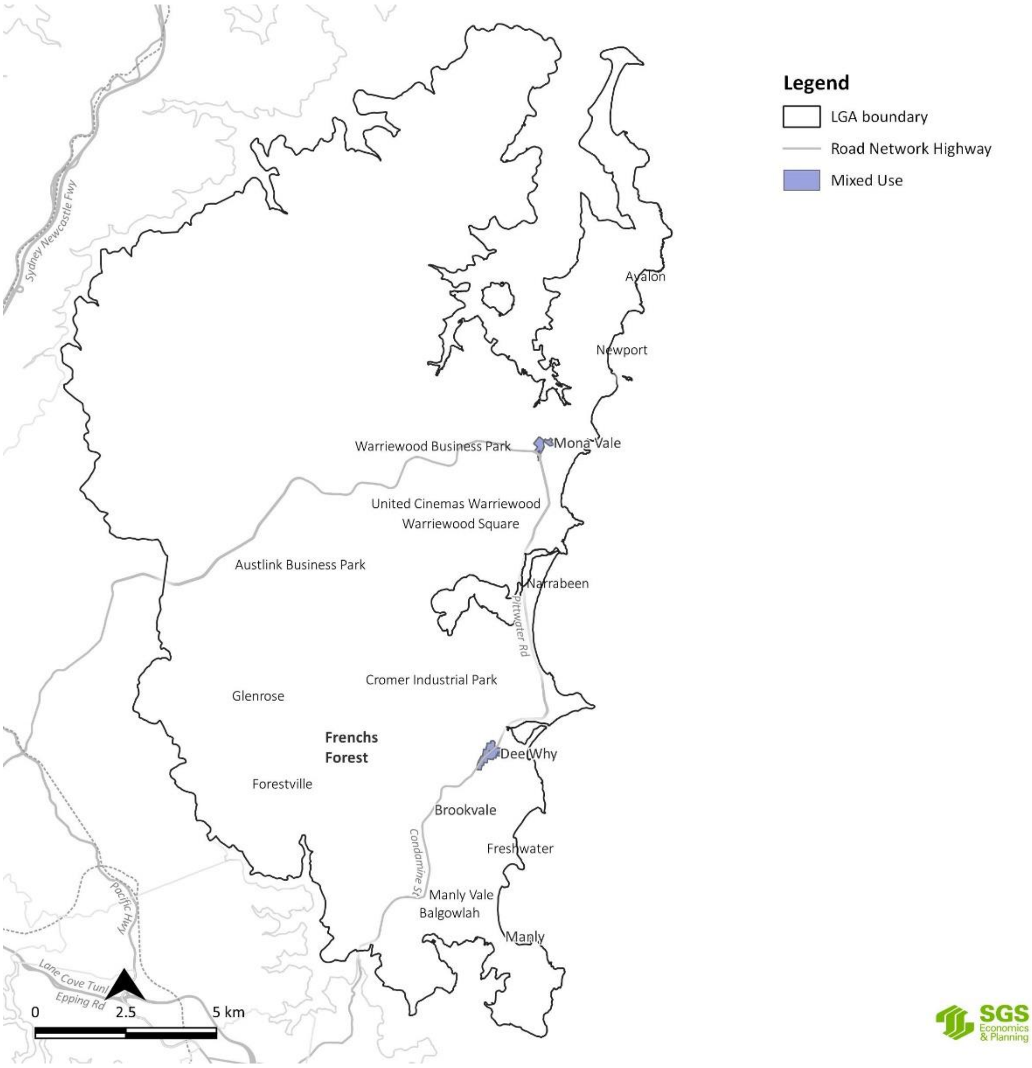
TABLE 115: RECOMMENDATION

Action	Rationale
Adopt the Manly LEP commercial core definition	The B3 zone is not applicable elsewhere in the Northern Beaches
Consider adding an additional objective in the Warringah LEP to reflect the proposed broader vision for Brookvale *"To recognise and support the role of Brookvale as a future employment centre for the Northern Beaches"*	This strategy proposes Brookvale developing as the predominant commercial centre in the Northern Beaches, beyond its current retail and industrial function. The LEP's objectives could recognise this intent more specifically.
Consider changing to a closed zone, with Prohibited uses reflecting the Standard Instrument and including *"Any development not specified in item 2 or 3"*	To streamline the LEP

Source: SGS, 2019

B4 Mixed Use

FIGURE 80: LOCATION OF B4 ZONES



Source: SGS 2019 using LZN16

Summary of LEP consistency

LGA	Zone applicable?
Manly LEP	
Warringah LEP	
Pittwater LEP	

The Standard instrument identifies the following objectives for the B4 zone:

- To provide a mixture of compatible land uses.
- To integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling.

In addition, the following have been added to some or all of the zone objectives:

- To reinforce the role of Dee Why as the major centre in the sub-region by the treatment of public spaces, the scale and intensity of development, the focus of civic activity and the arrangement of land uses (Warringah)

- To promote building design that creates active building fronts, contributes to the life of streets and public spaces and creates environments that are appropriate to human scale as well as being comfortable, interesting and safe (Warringah)
- To promote a land use pattern that is characterised by shops, restaurants and business premises on the ground floor and housing and offices on the upper floors of buildings (Warringah)
- To encourage site amalgamations to facilitate new development and to facilitate the provision of car parking below ground (Warringah)
- To strengthen the role of Mona Vale as a centre of employment in Pittwater (Pittwater)
- To provide healthy, attractive, vibrant and safe mixed-use areas (Pittwater)
- To provide an active day and evening economy (Pittwater)
- To provide for residential uses above ground level, where they are compatible with the characteristics and uses of the site and its surroundings (Pittwater)
- To encourage retail vitality and provide a high level of amenity for pedestrians and cyclists (Pittwater)

Inter-LEP zone inconsistencies

TABLE 116: B4 ZONE INCONSISTENCIES

Inconsistency	Land uses
PLEP	Allows home business ***without consent***
WLEP	Allow home-based childcare ***without consent*** (this requires consent in PLEP)
WLEP, but not in PLEP	Residential flat buildings
PLEP, but not in MLEP	Service stations; Sex services premises

Source: SGS, 2019

Proposed zone intent

The B4 zone pertains to two strategic centres in the Northern Beaches – Mona Vale and Dee Why. Although they are both identified as Strategic Centres, they are different in both their urban form and policy direction as outlined in the North District Plan.

Broadly, the B4 zone designates a centre with a mix of population serving functions such as retail, restaurants and cafes, local commercial services and community facilities, supported by medium to high density residential development.

Development in Dee Why has occurred at a faster rate than Mona Vale since the establishment of the respective LEPs. This has led to the establishment of a predominantly high density residential and retail precinct.

Given the distinct nature of the two B4-zoned centres, it is appropriate to retain place-specific objectives in addition to broader ones to articulate the distinct roles of the two centres.

Dee Why should continue to provide major retail and local business services, in addition to its civic role anchored by the Council Chambers, Library and PCYC.

Mona Vale should reinforce its role as the centre of the north, providing local services.

Both should aspire to supporting night-time and weekend economies and support medium and high-density residential development.

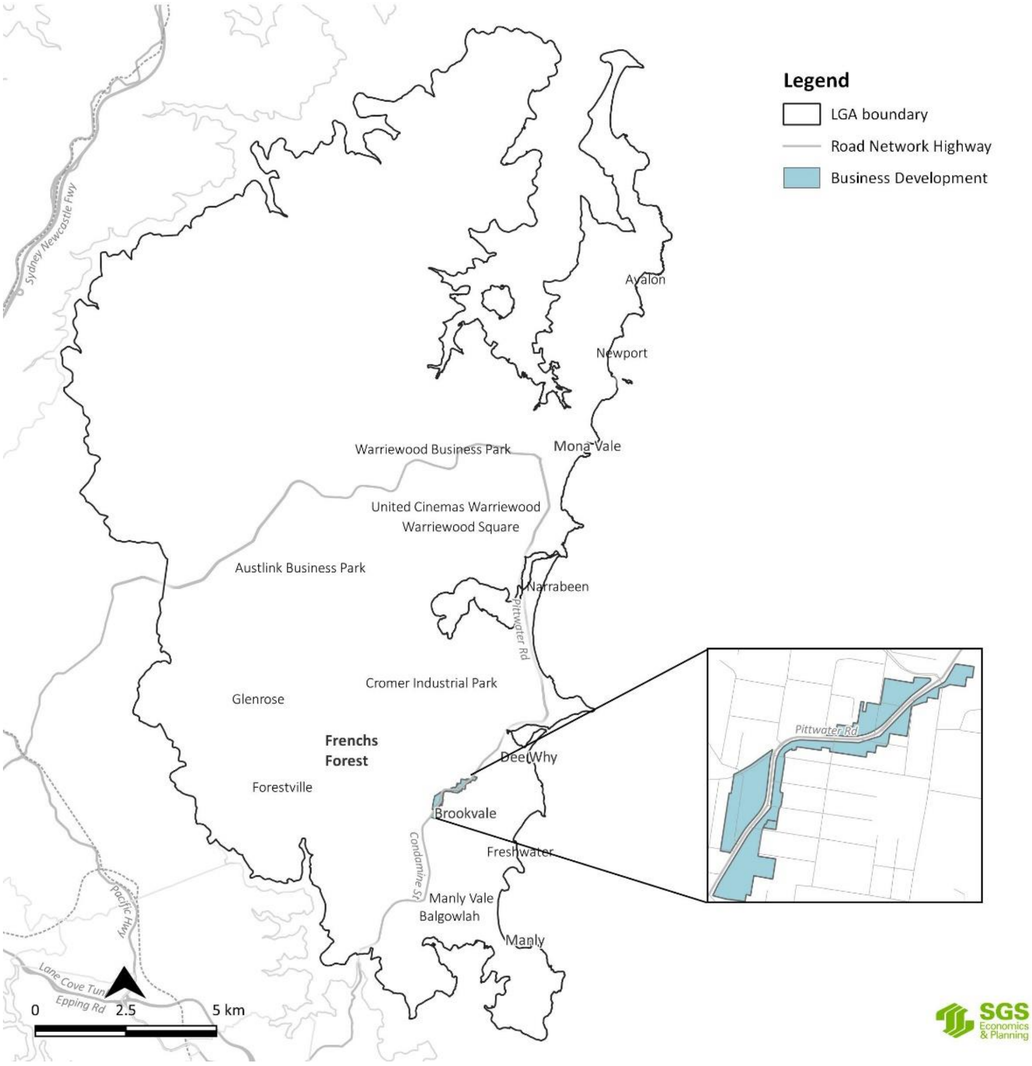
Recommendations

TABLE 117: RECOMMENDATION

Action	Rationale
Include the following as additional LGA-wide objectives: ▪ *"To promote building design that creates active building fronts, contributes to the life of streets and public spaces and creates environments that are appropriate to human scale as well as being comfortable, interesting and safe."* ▪ *"To promote a land use pattern that is characterised by shops, restaurants and business premises on the ground floor and housing and offices on the upper floors of buildings."* ▪ *"To provide healthy, attractive, vibrant and safe mixed-use areas".* ▪ *"To provide an active day and evening economy."*	To reflect the pedestrian scale and activation of these two strategic centres
Include centre-specific objectives: ▪ *To strengthen the role of Mona Vale as the major centre for retail and services in the north of the LGA".* ▪ *Support a range of retail, civic and commercial uses in Dee Why*	To highlight the differences between the two strategic centres of Mona Vale and Dee Why.
Include select industrial uses that are compatible with other centre uses and can add to the vitality of a centre. These may include Light industries such as 'Artisan food and drink' and 'Vehicle repair stations'	Local retail in certain centres is under-performing (for example, Avalon). Certain light industries such as breweries and food manufacturing can, if appropriately designed, provide alternative uses to traditional ground floor uses and encourage businesses that support evening and weekend economy functions while aligning with traditional centre functions such as restaurants. The inclusion of uses such as Vehicle repair stations recognises that these businesses often existing in or on the periphery of local centres. They are able to control noise and smell and provide a convenient place for residents to drop cars while being able to access public transport.
Permit home occupations but not home businesses	A B4 zone will have a diversity of commercial floorspace. Small businesses (larger than an individual) should be prioritised in commercial floorspace (either ground floor or shop-top either as workspaces or separate offices). It is noted this is different to the B2 zone, due to the likelihood of smaller centres having detached or semi-detached houses rather than apartments.
Prohibit home-base childcare	B4 residential development is likely to be apartment based and unlikely to support home-based childcare requirements.
Beyond what is proposed above, consolidate the permitted with consent across the Pittwater and Warringah LEPs.	Other uses are appropriate in B4 zone.
Consider changing to a closed zone, with Prohibited uses reflecting the Standard Instrument and including *"Any development not specified in item 2 or 3"*	To streamline the LEP
Confirm need for diverse housing typologies via Housing study to ascertain need for Residential Flat Buildings in B4 zone	To ensure that any LEP amendment reflects appropriate housing need.

B5 Business Development

FIGURE 81: LOCATION OF B5 ZONES



Source: SGS 2019 using LZN16

Summary of LEP consistency

LGA	Zone applicable?
Manly LEP	
Warringah LEP	
Pittwater LEP	

The Standard instrument identifies the following objectives for the B5 zone:

- To enable a mix of business and warehouse uses, and bulky goods premises that require a large floor area, in locations that are close to, and that support the viability of, centres.

In addition, the following have been added to some or all of the zone objectives:

- To provide for the location of vehicle sales or hire premises.
- To create a pedestrian environment that is safe, active and interesting by incorporating street level retailing and business uses.

Inter-LEP zone inconsistencies

As the B5 zone only applies in the Warringah LEP, there are no inter-LEP inconsistencies

Proposed zone intent

There is metropolitan wide ambiguity regarding the application of B5 (Business Development) and B6 (Enterprise Corridor) zones, with the two zones often used inter-changeably. The B5 zone is intended to support larger format retail functions that often need to be close to, but cannot locate in, existing centres.

The B5 (Business Development) zone should be reserved for future precincts that may have an as yet undefined function. This would result in the B5 vision reverting to the Standard Instrument definition.

Recommendations

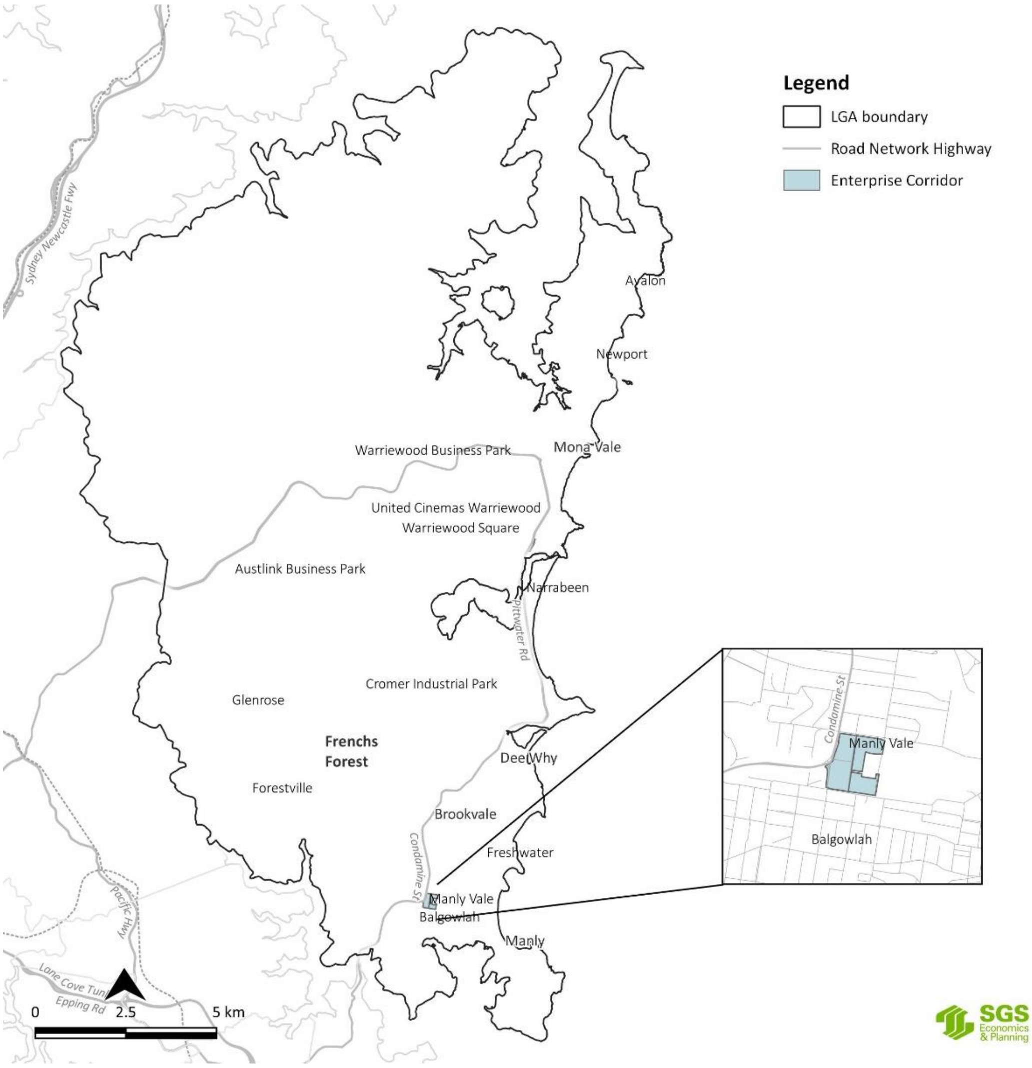
TABLE 118: RECOMMENDATION

Action	Rationale
Remove application of B5 zoning application in Brookvale through rezoning to B6	Rationalise the zoning as the current B5 zone in Brookvale is very similar in function to the B6 zones in the Manly and Pittwater LEPs.
Revert the B5 objectives and permissible and prohibited uses to Standard instrument definition	Reserve the use for future application.

Source: SGS, 2019

B6 Enterprise Corridor

FIGURE 82: LOCATION OF B6 ZONES



Source: SGS 2019 using LZN16

Summary of LEP consistency

LGA	Zone applicable?
Manly LEP	(green)
Warringah LEP	(red)
Pittwater LEP	(green)

The Standard instrument identifies the following objectives for the B6 zone:

- To promote businesses along main roads and to encourage a mix of compatible uses.
- To provide a range of employment uses (including business, office, retail and light industrial uses).
- To maintain the economic strength of centres by limiting retailing activity.

In addition, the following have been added to some or all of the zone objectives:

- To provide healthy, attractive, functional and safe enterprise corridors (Pittwater).

Inter-LEP zone inconsistencies

TABLE 119: B6 ZONE INCONSISTENCIES

Inconsistency	Land uses
MLEP, but not PLEP	Amusement centres; Depots; Environmental facilities; Helipads; Industrial retail outlets; Markets; Mortuaries; Office premises; Restaurants or cafes; Restricted premises; Sex services premises; Shops; Take away food and drink premises; Timber yards; Water recycling facilities; Water supply systems
PLEP, but not MLEP	Car parks; Information and education facilities; Neighbourhood shops; Recreation areas; Research stations; Vehicle body repair workshops

Proposed zone intent

There is metropolitan wide ambiguity regarding the application of B6 (Enterprise Corridor) and B5 (Business Development) zones, with the two zones often used inter-changeably. The B6 zone is intended to support businesses that benefit from arterial road visibility and access, including bulky goods retail and some light industries.

The Manly LEP permits shops under the B6 zone, while the Pittwater one restricts this to Specialised Retail Premises and Neighbourhood shops. To support the growth of the Northern Beaches centres, and to align more closely with the objective of the Standard Instrument to 'limit retailing activity', the B6 zone is intended to support those retailing outlets and other local businesses that are unable to locate in a centre but may not require an industrial zoning designation.

Source: SGS, 2019

Recommendations

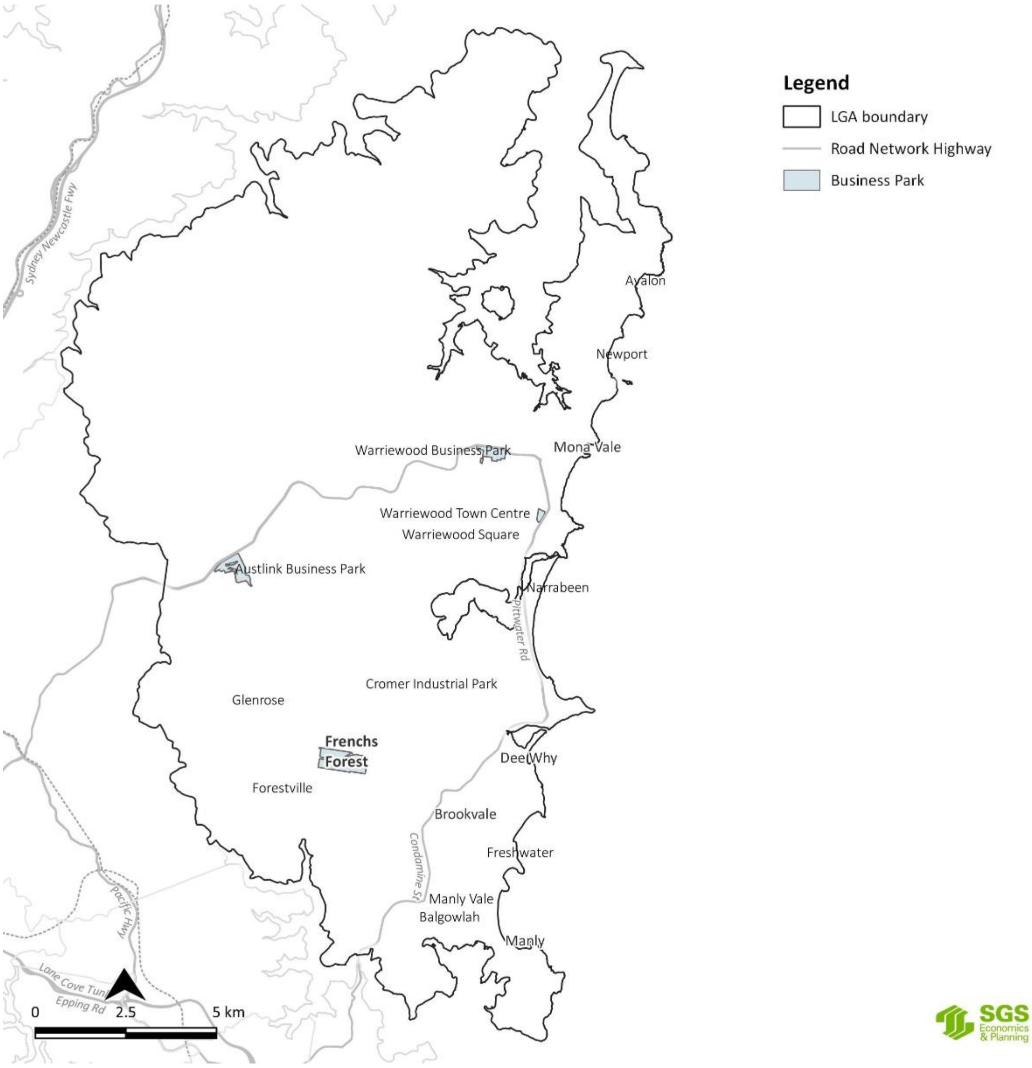
TABLE 120: RECOMMENDATION

Action	Rationale
Continue to support the retention of all existing IN2 uses under the B6 zone so all existing industrial uses are permissible under the proposed zoning.	Respect the pre-existing land uses in the B6 zone in Balgowlah.
Permit 'Specialised retail shops', 'Neighbourhood shops' and 'Take away food and drink premises' while restricting the overarching 'Shops' land use in B6 zones This would require an additional clause in the LEP that, like it does with existing IN2 uses in Balgowlah, continues to support the retention of existing shops already in the B6 zone.	Restrict B6 zones from becoming retail centres.
Rezone the B5 land use in Brookvale to B6	To rationalise similar land uses under the one zone in the LEP
Beyond what is proposed above, consolidate the permitted with consent across the Pittwater and Manly LEPs.	Other uses are appropriate in B6 zone.

Source: SGS, 2019

B7 Business Park

FIGURE 83: LOCATION OF B7 ZONES



Source: SGS 2019 using LZN16

Summary of LEP consistency

LGA	Zone applicable?
Manly LEP	
Warringah LEP	
Pittwater LEP	

The Standard instrument identifies the following objectives for the B7 zone:

- To provide a range of office and light industrial uses.
- To encourage employment opportunities.
- To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area.

In addition, the following have been added to some or all of the zone objectives:

- To create business park employment environments of high visual quality that relate favourably in architectural and landscape treatment to neighbouring land uses and to the natural environment (Warringah)
- To minimise conflict between land uses in the zone and adjoining zones and ensure the amenity of adjoining or nearby residential land uses (Warringah).
- To provide healthy, attractive, functional and safe business areas (Pittwater).

Inter-LEP zone inconsistencies

TABLE 121: B7 ZONE INCONSISTENCIES

Inconsistency	Land uses
Permitted in PLEP, but not in WLEP	Boat building and repair facilities; Depots; Industrial retail outlets; Industrial training facilities; Research stations; Service stations; Storage premises; Transport depots; Vehicle body repair workshops; Vehicle repair stations; Wholesale supplies

Source: SGS, 2019

Proposed zone intent

The first objective in the Standard instrument clearly conveys the intent of the B7 zone – "To provide a range of office and light industrial uses". The four precincts zoned B7 in the LGA – Frenchs Forest, Austlink, Mona Vale and Warriewood have broadly similar built form and industry profiles. They provide a mix of traditional campus-style commercial developments supporting single or large tenants. This predominant use is interspersed with light industrial uses, often as part of light industry strata units. Warriewood business park is more light industry in its function.

The recently completed Pittwater Private Hospital is within the Mona Vale business park zone and a recently approved aged care facility in the northern part of the Frenchs Forest Business Park has continued this trend of health-related services coming into B7 zones. Given the general amenity of business parks, it is considered appropriate that B7 zones continue to focus on business and light industry rather than increase the diversity of land uses such as health.

Recommendations

TABLE 122: RECOMMENDATION

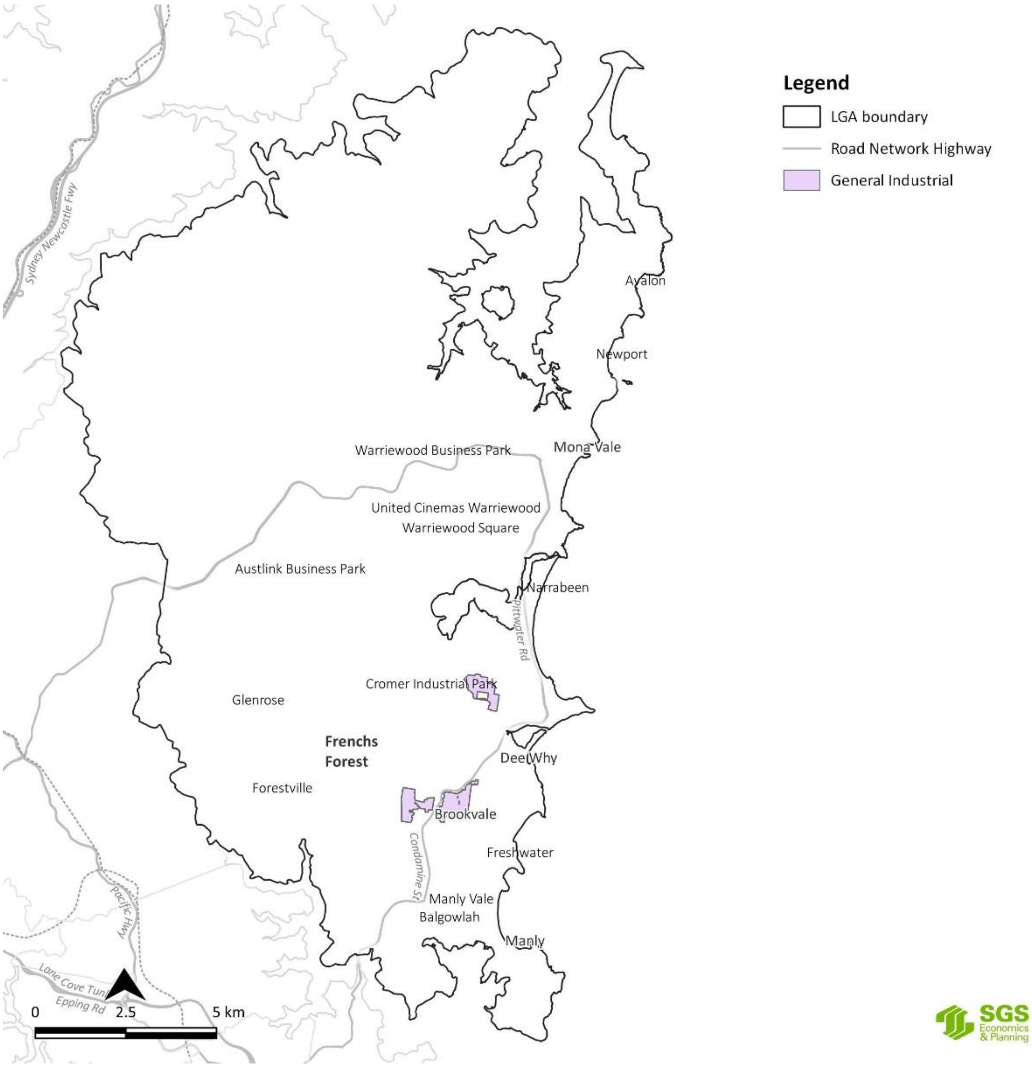
Action	Rationale
Consider including additional objectives to the effect of: ▪ *"To create business park employment environments of high visual quality that relate favourably in architectural and landscape treatment to neighbouring land uses and to the natural environment."* ▪ *"Support the development of commercial and light industrial precincts that support a diversity of business sizes"*	To reflect that the business parks often abut residential areas and/or bushland and should be sensitive to this interaction. Business Parks should also support a diversity of uses to ensure that they attract a sufficiently wide range of appropriate businesses.
Adopt the Pittwater LEP Permissible uses	To support a diversity of possible uses in the business parks, particularly those that are struggling to attract tenants such as Frenchs Forest
Permit with consent 'Depots'	To make the relocation of the Brookvale Bus Depot easier
Permit with consent 'Restaurants or cafes'	To provide better amenity for workers.

Change to a closed zone, with Prohibited uses reflecting the Standard Instrument and including *"Any development not specified in item 2 or 3"*	To streamline the LEP

Source: SGS, 2019

IN1 General Industrial

FIGURE 84: LOCATION OF IN1 ZONES



Source: SGS 2019 using LZN16

Summary of LEP consistency

LGA	Zone applicable?
Manly LEP	
Warringah LEP	
Pittwater LEP	

The Standard instrument identifies the following objectives for the IN1 zone:

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.

In addition, the following have been added to some or all of the zone objectives:

- To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area.
- To enable a range of compatible community and leisure uses.
- To maintain the industrial character of the land in landscaped settings.
- To create a pedestrian environment that is safe, active and interesting by incorporating street level retailing and business uses.

Inter-LEP zone inconsistencies

As the IN1 zone only applies in the Warringah LEP, there are no inter-LEP inconsistencies.

Proposed zone intent

The General Industrial zoning supports a diversity of land uses and industries. These often require larger lots and sufficient proximity from adjacent land uses to ensure they can operate effectively.

The objectives as stated in the Standard Instrument succinctly summarise the intent of the IN1 zone and this is reflected in the two IN1-zoned Precincts – Brookvale and Cromer. Both these precincts share similar industry mixes and built form, with Brookvale increasingly diversifying.

Both support a range of industries and are of a scale that means they are critical precincts to the wider LGA economy, particularly as they provide a range of supply chain functions for the various trades serving the Northern Beaches and wider North District.

Both zones are beginning to attract entertainment and food and beverage operations such as brewery bars. These are captured under 'Light industry – artisan food and drink industry' but do run the risk of introducing land use conflict with the predominant land uses.

General industrial precincts are also attractive to gyms and other indoor recreation uses. Certain uses – such as rock climbing or trampolining centres – require the type of floorspace provided in Light industrial precincts, however others could be better located in appropriate B zones – such as B6 or even B7 zones. Across the Northern Beaches' IN1 and IN2 zones, there are sufficiently high number of indoor recreation facilities to make it difficult to subsequently restrict them.

Recommendations

TABLE 123: RECOMMENDATION

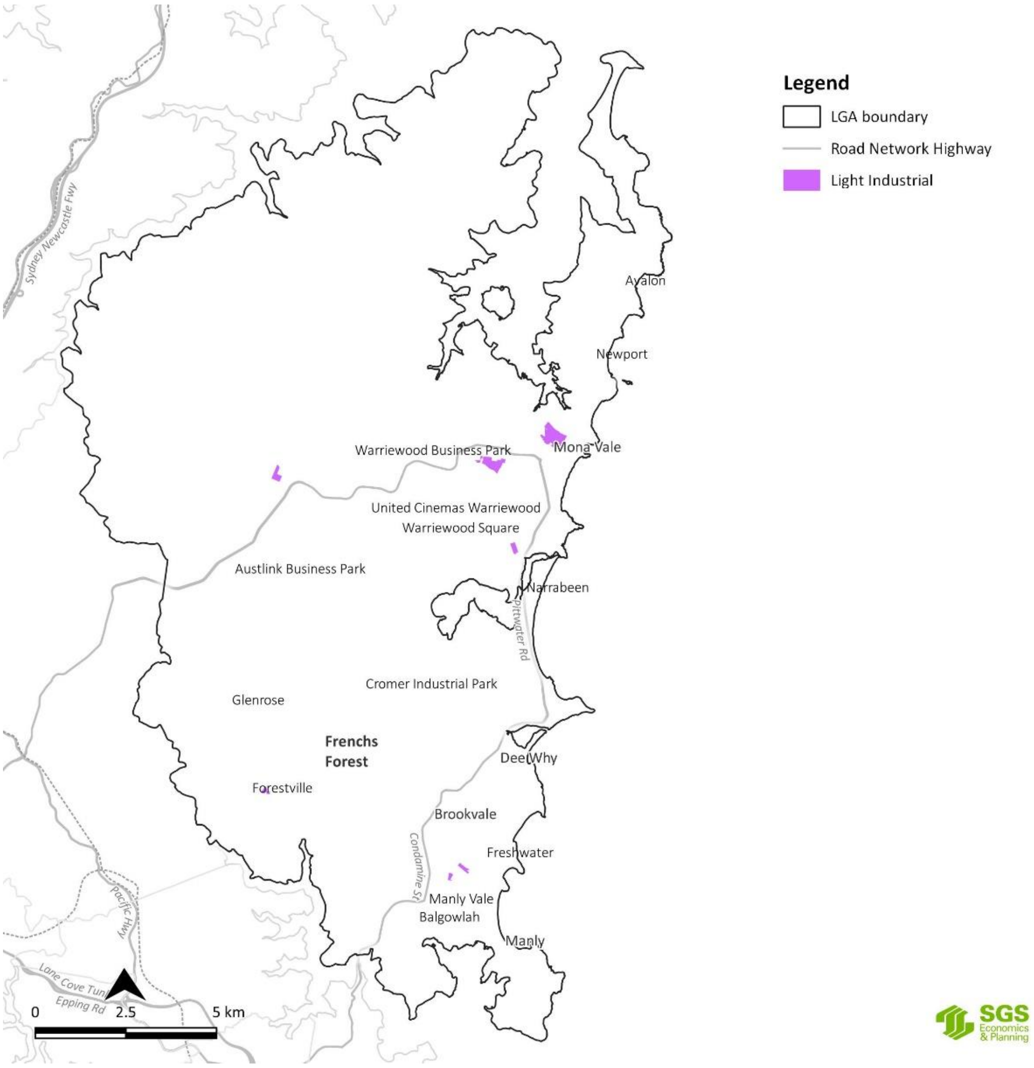
Action	Rationale
Add additional objectives to LEP: ▪ *To accommodate uses that, because of demonstrated special building or site requirements or operational characteristics, cannot be or are inappropriate to be located in other zones* ▪ *To maintain the industrial character of the land*	To recognise the importance of these precincts in providing for uses that cannot locate elsewhere
Adopt Warringah LEP IN1 General Industrial Core objectives and permitted/prohibited uses in consolidated LEP	To streamline the LEP
Permit with Consent "Resource Recovery facility "	To provide opportunities for advanced waste recovery processes to support circular economy principles and emerging industries.
Add 'Recreation facility (indoor) to permissible with consent, to reflect what is already in these precincts BUT focus permission on facilities that absolutely require industrial floorspace built forms (rock climbing, trampolining) rather than small gyms.	To acknowledge the local services these play but also to restrict the proliferation of gyms in industrial precincts, at the expense of other industrial functions.

Consider changing to a closed zone, with Prohibited uses reflecting the Standard Instrument and including *“Any development not specified in item 2 or 3”*	To streamline the LEP

Source: SGS, 2019

IN2 Light Industrial

FIGURE 85: LOCATION OF IN2 ZONES



Source: SGS 2019 using LZN16

Summary of LEP consistency

LGA	Zone applicable?
Manly LEP	
Warringah LEP	
Pittwater LEP	

The Standard instrument identifies the following objectives for the IN2 zone:

- To provide a wide range of light industrial, warehouse and related land uses.
- To encourage employment opportunities and to support the viability of centres.
- To minimise any adverse effect of industry on other land uses.

- To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area.
- To support and protect industrial land for industrial uses.

In addition, the following have been added to some or all of the zone objectives:

- To maintain the industrial character of the land in landscaped settings (Warringah).
- To enable a range of compatible services, community and recreation uses (Pittwater).
- To accommodate uses that, because of demonstrated special building or site requirements or operational characteristics, cannot be or are inappropriate to be located in other zones (Pittwater).
- To provide healthy, attractive, functional and safe light industrial areas (Pittwater).

Inter-LEP zone inconsistencies

TABLE 124: IN2 ZONE INCONSISTENCIES

Inconsistency	Land uses
Permitted in PLEP, but not in WLEP	Animal boarding or training establishments; Boat building and repair facilities; Industrial retail outlets; Recreation facilities (indoor); Service stations; Transport depots; Vehicle body repair workshops; Vehicle repair stations; Wholesale supplies

Source: SGS, 2019

Proposed zone intent

The Standard Instrument defines an IN2 Light Industry zone as a "…place used to carry out an industrial activity that does not interfere with the amenity of the neighbourhood…'

The light industrial precincts throughout the former Warringah and Pittwater LGA's share similar characteristics in built form. Many take the former of industrial strata units, supporting a range of local businesses. This is the intent of the zone and should be flexible enough to support a diversity of businesses that support the local population but who require storage, fabrication and other type of spaces that cannot be accommodated in town centres.

The Light Industrial precincts should not be places that wholly office-based businesses seek to locate due to lower rents or precinct character. They should be reserved from functions that require them given constrained supply.

Light industrial precincts are also attractive to gyms and other indoor recreation uses. Certain uses – such as rock climbing or trampolining centres – require the type of floorspace provided in Light industrial precincts, however others could be better located in appropriate B zones – such as B6 or even B7 zones. Across the Northern Beaches' IN1 and IN2 zones, there are sufficiently high number of indoor recreation facilities to make it difficult to subsequently restrict them.

Recommendations

TABLE 125: RECOMMENDATION

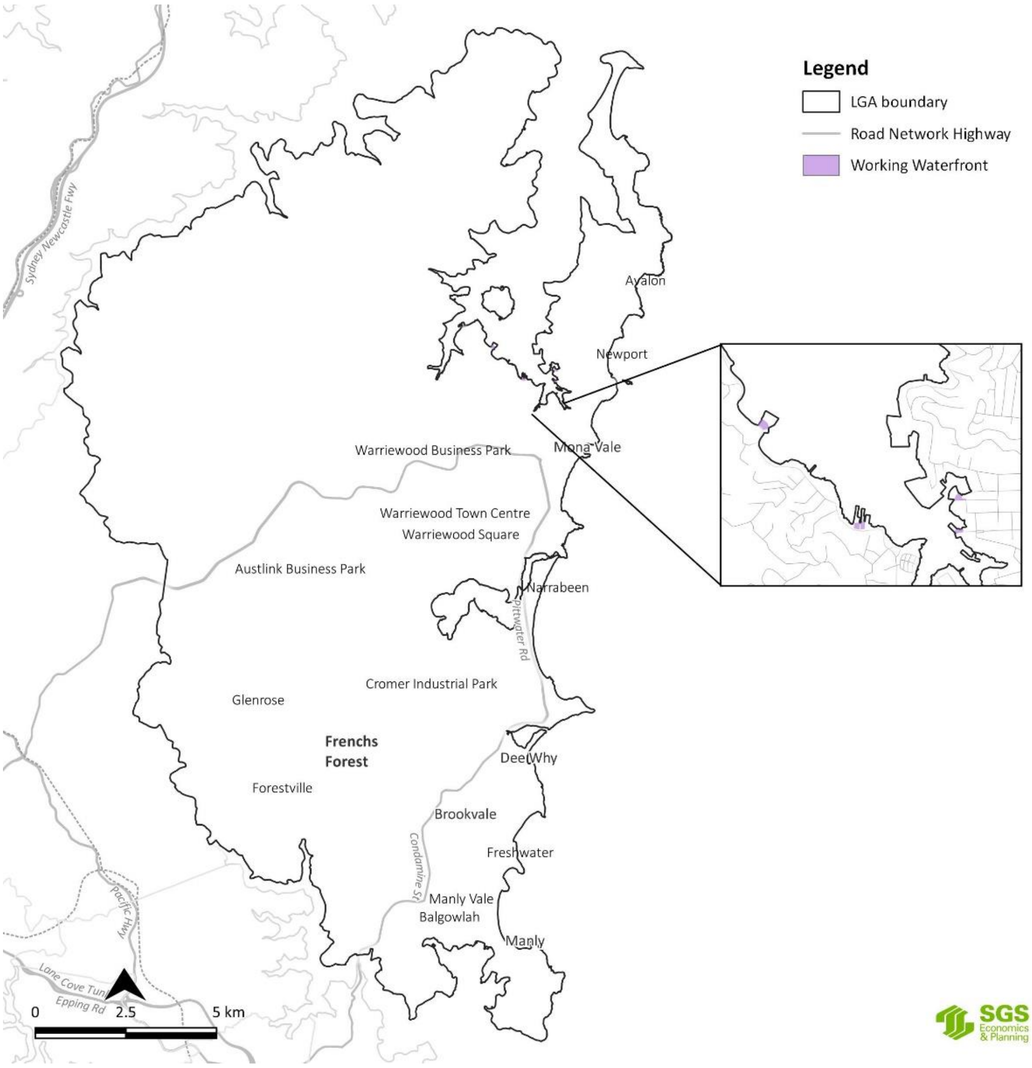
Action	Rationale
Add additional objectives to LEP: ▪ *To accommodate uses that, because of demonstrated special building or site requirements or operational characteristics, cannot be or are inappropriate to be located in other zones* ▪ *To maintain the industrial character of the land*	To recognise the importance of these precincts in providing for uses that cannot locate elsewhere

Add 'Recreation facility (indoor) to permissible with consent, to reflect what is already in these precincts BUT focus permission on facilities that absolutely require industrial floorspace built forms (rock climbing, trampolining) rather than small gyms.	To acknowledge the local services these play but also to restrict the proliferation of gyms in industrial precincts, at the expense of other industrial functions.
Amalgamate the permitted with consent uses across the Warringah and Pittwater LEPs	To streamline the LEP

Source: SGS, 2019

IN4 Working waterfront

FIGURE 86: LOCATION OF IN4 ZONES



Source: SGS 2019 using LZN16

Summary of LEP consistency

LGA	Zone applicable?
Manly LEP	
Warringah LEP	
Pittwater LEP	

The Standard instrument identifies the following objectives for the IN4 zone:

- To retain and encourage waterfront industrial and maritime activities.

- To identify sites for maritime purposes and for activities that require direct waterfront access.
- To ensure that development does not have an adverse impact on the environmental and visual qualities of the foreshore.
- To encourage employment opportunities.
- To minimise any adverse effect of development on land uses in other zones.

In addition, the following have been added to some or all of the zone objectives:

- To provide for water-based business and service facilities that serve Pittwater and the wider region

Inter-LEP zone inconsistencies

As the IN4 zone only applies in the Warringah LEP, there are no inter-LEP inconsistencies.

Proposed zone intent

The IN4 zone reflects the need to specifically support industries that rely on serving marine-based operations and industries. These precincts often serve a wider catchment than other local industrial precincts given the limited availability of industrially zoned land along the eastern seaboard with water access.

Recommendations

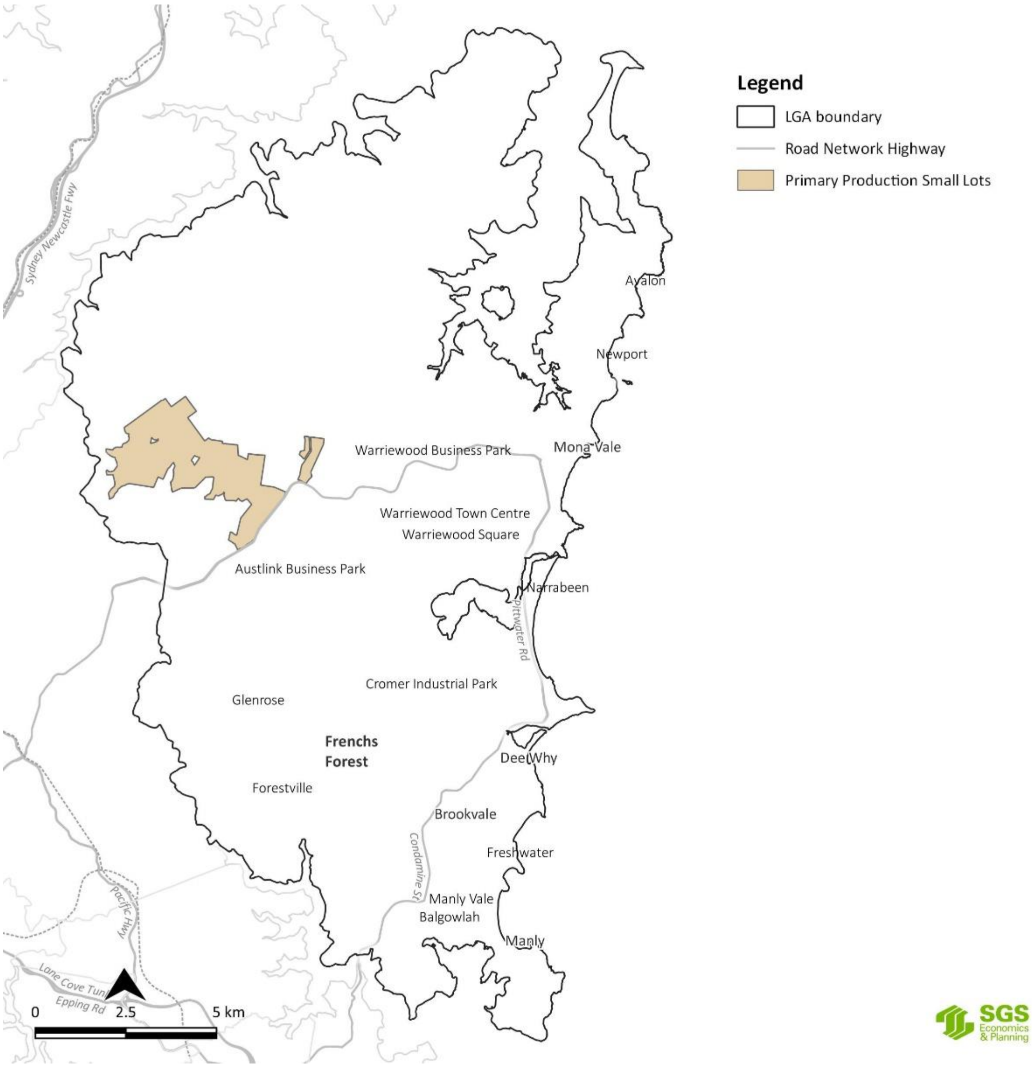
TABLE 126: RECOMMENDATION

Action	Rationale
Retain additional objective in the Pittwater LEP	To reflect the wider importance of IN4 zones
Adopt Pittwater LEP permissible and prohibited uses	To streamline the LEP

Source: SGS, 2019

RU4 Primary Production small lots

FIGURE 87: LOCATION OF RU4 ZONES



Source: SGS 2019 using LZN16

Summary of LEP consistency

LGA	Zone applicable?
Manly LEP	
Warringah LEP	
Pittwater LEP	

The Standard instrument identifies the following objectives for the IN2 zone:

- To enable sustainable primary industry and other compatible land uses.
- To encourage and promote diversity and employment opportunities in relation to primary industry enterprises, particularly those that require smaller lots or that are more intensive in nature.
- To minimise conflict between land uses within this zone and land uses within adjoining zones.

In addition, the following have been added to some or all of the zone objectives:

- To minimise the impact of development on long distance views of the area and on views to and from adjacent national parks and bushland.
- To maintain and enhance the natural landscape including landform and vegetation.
- To ensure low intensity of land use other than land uses that are primary industry enterprises.
- To maintain the rural and scenic character of the land.

Inter-LEP zone inconsistencies

As the RU4 zone only applies in the Warringah LEP, there are no inter-LEP inconsistencies.

Proposed zone intent

The RU4 zone is intended to support peri-urban productive functions and landscape and gardening-focused bulky good functions such as plant nurseries. The Mona Vale Road precinct is a District-level cluster of nurseries and small lot production.

Recommendations

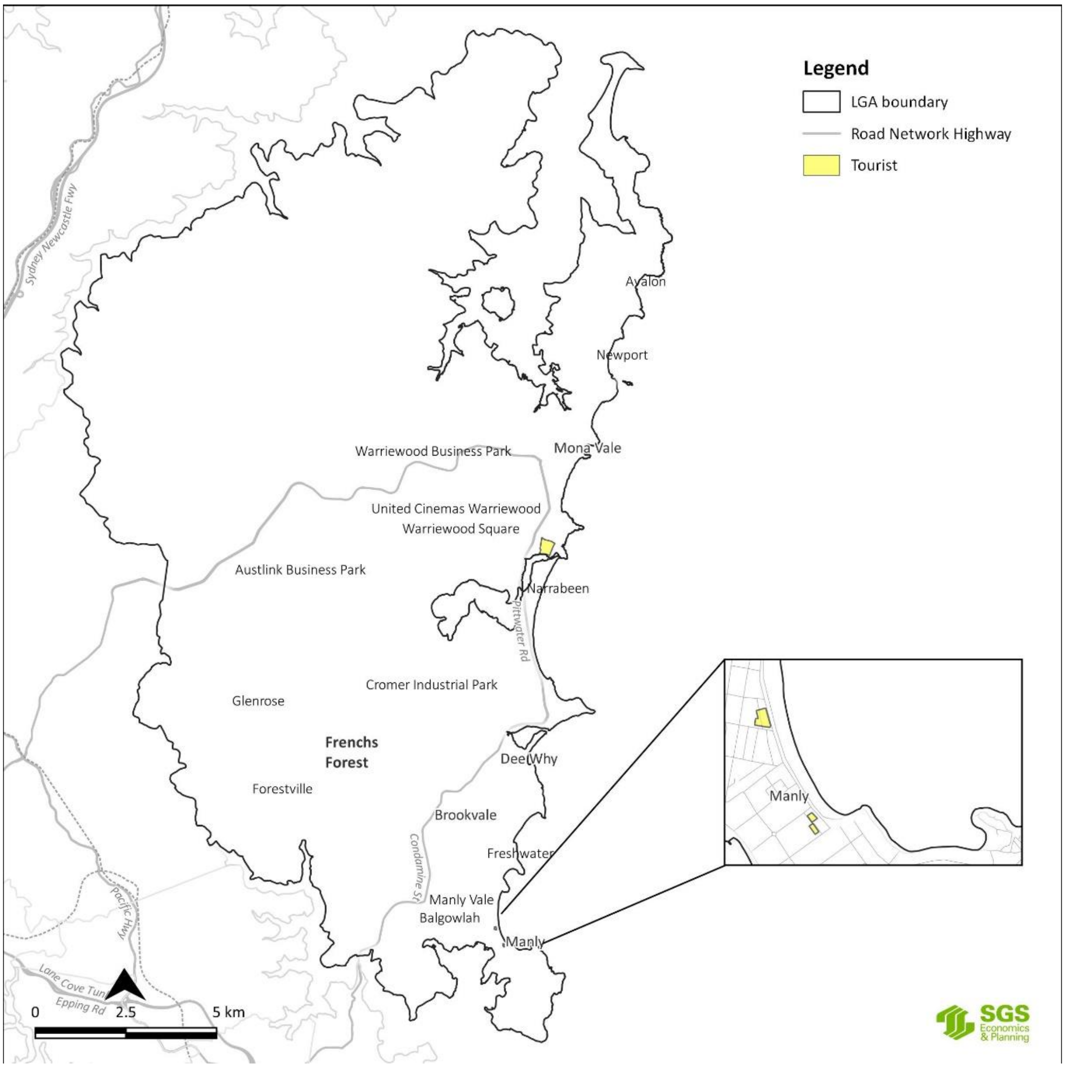
TABLE 127: RECOMMENDATION

Action	Rationale
Retain the additional objectives in the Warringah LEP as part of the harmonised LEP	To reflect the place-specific vision for the Terry Hills RU4 precinct
Continue to retain the RU4 zone to preserve the productive and rural/landscaping retail functions of the land uses along Mona Vale Road and into Terrey Hills.	To sustain this important land use.
Adopt Warringah LEP's permissible and prohibited uses for harmonised LEP	To streamline LEP

Source: SGS, 2019

SP3 Tourist

FIGURE 88: LOCATION OF SP3 ZONES



Source: SGS 2019 using LZN16

Summary of LEP consistency

LGA	Zone applicable?
Manly LEP	
Warringah LEP	
Pittwater LEP	

The Standard instrument identifies the following objectives for the IN2 zone:

- To provide a wide range of light industrial, warehouse and related land uses.
- To encourage employment opportunities and to support the viability of centres.
- To minimise any adverse effect of industry on other land uses.
- To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area.
- To support and protect industrial land for industrial uses.

In addition, the following have been added to some or all of the zone objectives:

- To maintain the industrial character of the land in landscaped settings (Warringah).
- To enable a range of compatible services, community and recreation uses (Pittwater).
- To accommodate uses that, because of demonstrated special building or site requirements or operational characteristics, cannot be or are inappropriate to be located in other zones (Pittwater).
- To provide healthy, attractive, functional and safe light industrial areas (Pittwater).

Inter-LEP zone inconsistencies

TABLE 128: SP3 ZONE INCONSISTENCIES

Inconsistency	Land uses
Permitted in MLEP, but not in PLEP	Building identification signs; Business identification signs; Environmental protection works; Flood mitigation works; Water recycling facilities; Water reticulation systems; Water storage facilities
Permitted in PLEP, but not in MLEP	Camping grounds; Caravan parks; Eco-tourist facilities; Function centres; Information and education facilities

Source: SGS, 2019

Proposed zone intent

The Standard Instrument's Tourism classification is intended to classify areas with a strong tourism-oriented role. In the former Manly LGA this applies to certain sections of the Manly town centre and the North Narrabeen holiday park. The two reflect different tourism functions, with Manly predominately supporting hotel uses while Pittwater is focused on camping-related functions.

Recommendations

TABLE 129: RECOMMENDATION

Action	Rationale
Combine the two sets of permissible uses.	To streamline the LEP. They service different functions in very specific areas

Source: SGS, 2019

11.2 Summary of land use zone comparison

Zone comparison

By way of summary, the following table summarises the permissibility of broad land uses across the three existing LEPs.

TABLE 130: SUMMARY COMPARISON OF PERMITTED LAND USES ACROSS THREE FORMER LGAS

Permissible use		Manly	Warringah			Pittwater			
Type	Permitted with consent	B6	B5	IN1	IN2	B6	B7	IN2	IN4
Commercial	Business premises								
Commercial	Commercial premises								
Commercial	Office premises								
Community	Centre-based childcare facilities								
Community	Community facilities								
Community	Educational establishments								
Industrial	Depots								
Industrial	Freight transport facilities								
Industrial	Garden centres								
Industrial	General industries								
Industrial	Hardware and building supplies								
Industrial	Industrial retail outlets								
Industrial	Industrial training facilities								
Industrial	Landscaping material supplies								
Industrial	Light industries								
Industrial	Plant nurseries								
Industrial	Self-storage								
Industrial	Storage premises								
Industrial	Timber yards								
Industrial	Transport depots								
Industrial	Truck depots								
Industrial	Vehicle body repair workshops								
Industrial	Vehicle repair stations								
Industrial	Vehicle sales or hire premises								
Industrial	Warehouse or distribution centres								
Industrial	Wholesale supplies								
Retail	Food and drink premises								
Retail	Neighbourhood shops								
Retail	Restaurants or cafes								
Retail	Shops								
Retail	Specialised retail premises								
Retail	Take away food and drink premises								

Source: Former Manly, Warringah and Pittwater LEPs

12. INSIGHTS

12.1 Introduction

The analysis undertaken in the previous chapters provides a series of insights into the workings of the Northern Beaches' economy and the unique characteristics of its precincts. On their own, they only tell part of the story. What is important is the interactions between these pieces of analysis and the stories that, cumulatively, it presents. This chapter weaves these stories together, identifying a series of insights that inform the proposed vision and recommendations in Chapter 13.

12.2 Challenges

Frenchs Forest Town Centre – severance and impact

French Forest will have the potential to develop health and education and retail industries, as well as commercial (office) through the business park for the LGA. However, the 'centre' has significant severance issues with the hospital and retail and business park located either side of the Warringah Road, as well as how it encompasses the current ForestWay shopping centre. Despite having a significant B7 Business Park zone, it tends to have more of an industrial character.

The growth of this centre may impact other centres in the LGA, such as a decline of Manly or Mona Vale hospitals for employment opportunities as a consequence of the growth of Northern Beaches Hospital. A number of other precincts across Greater Sydney have been designated 'health and education precincts' by the Greater Sydney Commission and there has been no State or Federal commitment to progress tertiary education. Frenchs Forest will be competing with more well-established, more accessible health precincts to attract highly skilled professionals and key workers.

Brookvale as an ill-defined centre

The Brookvale centre suffers from relatively low amenity and a lack of central public space design, a mix of uses in the industrial zone and a dominant Westfield shopping centre that is the centre of gravity for the local population.

There is a challenge in protecting the industrial and urban services lands in Brookvale and balancing it with the other major role of Brookvale, its population serving role alongside an increasing pace of change. Brookvale will assist development of the local economy and changing business models such as advanced manufacturing and increased pressure on 'last mile delivery'. Another challenge will be enabling this transition while protecting core industrial and urban service operations.

Strengthening the role of Dee Why as a strategic centre

With low amenity and dominated by Pittwater Road, Dee Why lacks the vitality of a strategic centre.

Tension with competing uses in Manly centre

The Manly catchment has exhibited the highest growth rate in employment between 2011-2016. Place of work data indicates the Manly catchment has a high share of professional related jobs. Accessibility to Manly is limited. Policy directives for the centre are aimed at encouraging a large mix of uses in tourism, retail and entertainment components of the centre, as well as diversifying commercial activity. Together, these factors have potential to create tension within Manly centre.

Elevating Mona Vale to fulfil its role as a strategic centre

Mona Vale functions like a local centre and is less accessible by public transport than most other centres in the LGA.

Protecting the integrity of the industrial precincts

There is a lack of distinction between commercial and industrial uses in the Brookvale precinct where these land uses also need protection from residential pressures. The value of these lands, in performing important functions for cities and populations, needs to be recognised. The provision of jobs and services close to where people live, and other businesses are critical to the productivity of the North District and Greater Sydney

Understanding what it means to work locally and changing perceptions

Given the high rates of self-containment in the LGA, there is a need to better understand and define this concept, understanding the requirements of workers so that economic centres and population serving industries and coworking spaces respond to worker needs. The Northern Beaches is perceived by residents and local businesses as a place to relax, rather than being a credible business place.

Employment and economic centres meet the needs of the ageing population, and helps maintain generational diversity of the population

Ensuring employment opportunities, the built environment of economic activity centres and the businesses within them caters to the mobility, essential services and employment needs of the ageing population in the LGA. The types of goods, services and experiences sort by older generations in Northern Beaches may be different to the past. Economic centres will also have to meet the needs of others in the Northern Beaches community and encourage diversity by attracting, or retaining, other generations – strengthening the community.

Lack of connectivity and accessibility – internal and external

Overall, the LGA suffers from a lack of connectivity within many centres, topography and severance issues with high rates of private vehicle use. Distance has been identified as an issue for many businesses. Lack of public transport and car parking are also issues. Externally, there is significant movement of workers between Northern Beaches LGA to Sydney CBD, North Sydney and Willoughby, improving connections out of the LGA to these areas would be valuable.

12.3 Opportunities

Frenchs Forest - improving connectivity and the business park

The Frenchs Forest Business Park is a valuable asset in current form and function. It could take on a higher commercial (office) component for the LGA and will require amenity improvements. Consideration of night-shift workers in the hospital precinct and ensuring good amenity and safety in design in included in future development.

Integrating sustainable design elements into the new centre to support the sustainability intent of the LGA could be considered. There is opportunity to shape the future direction of the town centre in alignment with local employment objectives. Design and place branding should build on existing local strengths and aim to attract highly skilled job opportunities and workers.

Improving the functionality of Brookvale

Leverage the high level of transport connectivity in Brookvale and the diversity land uses in terms of retail, industrial and urban services, to make this centre the focus for employment, higher order retail and complementary to the role of Dee Why. Key to centre development will be integrating Warringah Mall with surrounding land uses, improving urban amenity (particularly between the retail and industrial zones) and creating a 'town centre-activity point' outside of Warringah Mall.

Determine the 'right' mix of industrial and urban services uses for the centre, protecting valuable industrial and urban services lands and ensuring creative-led gentrification does not impact the original function of the land use. Recognise there are transitions in business models occurring, such as advanced manufacturing. There is opportunity to leverage these transitions.

Dee Why as a civic and population serving centre

To complement the role of Brookvale, Dee Why centre can be a focal point for civic functions and population servicing industries for the surrounding residential populations. Improving the amenity and vitality of the centre will be key and leveraging the high transport accessibility of the area.

Developing a clear vision for Manly centre to help reduce future land use conflict

A clear vision and balancing competing industry land use into the future will be required. Continuing to build the tourism role of Manly could be a key focus given the widespread recognition of Manly as a visitor site. Consideration of coworking spaces to cater to self-contained, professional jobs could be developed, as well as focusing commercial growth elsewhere in the LGA.

Mona Vale – the strategic centre for the northern portion of the LGA

Recognising other centres in the LGA will be strong attractors of commercial (office), higher order retail and industrial, Mona Vale centre will have to fulfil a complementary role. Like Dee Why, it will have to fulfil a population serving function for the residential communities of the northern area.

Developing the population serving role of smaller, local centres

Grow smaller, local centres to fulfil a primarily population serving role, especially as the population ages. Investigating coworking space given the high rate of self-containment in some of these centres.

Improving internal and external connectivity

Given the significant number of workers, in particular Knowledge Intensive workers, travelling between Northern Beaches LGA and other areas for employment such as Sydney CBD, North Sydney and Willoughby – ensuring efficient transport connections will be valuable to productivity. Improving local level connectivity to improve access, vitality and safety within the LGA.

Strengthen small and medium business opportunities and recognise entrepreneurial strengths

As an opportunity to grow local employment, ensure economic activity centres support the establishment of small and medium businesses. This could potentially be through grants or programs or co-working spaces. There is opportunity for further exploration to understand the potential of coworking and innovative environments to boost employment options.

Support the development of a diverse night-time economy

Highlighted as a priority for the LGA in local studies, supporting increased access, convenience, safety, capacity and diversity of activities of the night-time economy in the economic activity centres is an opportunity area.

Strengthen job containment and self-sufficiency

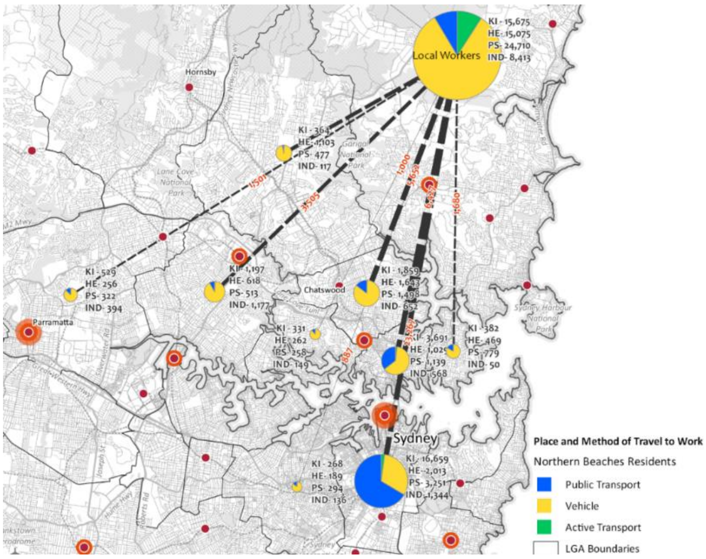
By improving economic activity centres - the vibrancy, urban design and functionality, as well as achieving the right branding and vision for a centre and opening employment opportunities, this could help to increase the self-sufficiency of the LGA. Furthermore, building the local business community network; changing perceptions and attitudes about the Northern Beaches and highlighting its business potential and encouraging residents to work from home once a month could also assist.

12.4 Insights into the Northern Beaches economy

The labour market, work patterns and business needs are changing

- **The Northern Beaches' skills profile is changing.** More people are travelling to major employment centres such as the Sydney CBD, North Sydney and Macquarie Park as the number of people employed in professional and financial services are increasing. At the same time, trade services are declining. This has an impact on the role and function of the Northern Beaches centres as they may decrease as a place of local trade-based employment and focus emerging local commercial needs and local service provision.

FIGURE 89: PLACE AND METHOD OF TRAVEL TO WORK (PUR) OF LOCAL WORKERS – MAP (2016)



Source: ABS Census 2016 (TableBuilder Pro)

- **Providing support to those working from home**. Many businesses start in peoples' homes. For those working at home, the ability to make use of communal facilities such as meeting rooms, video-conferencing facilities and even productive space provide business infrastructure that they may not otherwise be able to access. Such communal spaces also provide the opportunity for sole traders to interact, collaborate and socialise. For those businesses looking to grow, share paces and flexible small office facilities provide an affordable transition for home-based businesses to grow into. Much of the traditional commercial floorspace in the Northern Beaches has been business park-style development in Frenchs Forest and Belrose, which does not align with the needs of emerging home-based businesses and is why Lifestyle Working in Brookvale has been such a success.

There is a misalignment between existing floorspace stock and emerging demand

- **Commercial floorspace demands are changing**. There is a shift in the type and location of commercial floorspace in demand in the LGA. Frenchs Forest, a 1990's style business park, has significant amount of vacant floorspace (approximately 38,000sqm as of August 2019 with an average of approximately 1,000sqm). It also has low rents compared with other centres ($352/sqm compared with an LGA average of $500/sqm). This reflects a move away from whole building tenants, or even whole floor tenants, which many of Frenchs Forest's commercial stock is designed to accommodate.

- **There is a shortage of appropriate commercial floorspace**. 90% of the Northern Beaches' businesses comprise of five or fewer people. These are likely to require small individual premises or commercial suites such as Brookvale's Lifestyle Work. New developments in Frenchs Forest (the Northern Beaches Health Hub scheduled for completion in 2020) are geared toward this with flexible division of floorspace that older business park stock may not be designed to easily provide. There is also a reasonable amount of commercial vacancies in centres such as Brookvale, however it is likely that this is of relatively poor quality in small shop-top suites or within industrial precincts that do not provide the high-quality amenity that businesses may seek.

- **Future development may need to increase stock while vacancies are still high**. To ensure that the right type of floorspace is provided to meet the changing needs of increasingly office-based businesses, there is a need to incentivise the delivery of new, flexible commercial floorspace that promotes collaboration and provides services geared towards small businesses. This may need to happen while there are still significant amounts of commercial floorspace on the market in various precincts (Frenchs forest and Brookvale in particular – albeit with different types). While this may risk impacting on the viability of existing floorspace to find tenants, there appears a wider challenge about providing for emerging small businesses and working towards a 30-minute city aspiration.

The Northern Beaches will become better connected

- **The Northern Beaches Link increases road network connectivity**. The Beaches Link connection to Sydney's motorway network is anticipated to significantly improve access to and from the Northern Beaches. This will make it easier for people to access the southern part of the LGA from central Sydney. It will also increase accessibility for residents working outside of the LGA.

- **The B-Line will connect the LGA to Sydney's metro and rail network**. A direct east-west bus connection from Brookvale to Chatswood will provide residents with better access to Sydney's mass transport network and, by extension, major employment centres such as Macquarie Park and North Sydney. It will also improve accessibly for people working in the Frenchs Forest precinct who live outside of the LGA but commute in. The establishment of this public transport link will place Brookvale too at the centre of the Northern Beaches' accessibility catchment.

- **Transport investment preferences Brookvale and Frenchs Forest.** The proposed routes of this transport infrastructure will increase accessibility to Brookvale and Frenchs Forest in particular. This frames the future economic growth largely within these two centres, rather than towards Manly or Mona Vale.

- **Improved transport infrastructure will aid commuting out of the LGA**. It is likely that many residents will value the transport improvements that the Beaches Link and B-Line provide due to their increased ability to access jobs outside of the LGA. It must be considered that this has the potential to erode the competitive advantage that existing centres have in attracting and retaining jobs because of the increased connectivity to other commercial centres in Greater Sydney.

Brookvale provides a range of services but lacks a clear identity

- **Brookvale is the dominant centre with the largest catchment.** Brookvale is the Northern Beaches' most accessible centre. Brookvale is the largest centre both in terms of jobs (16,500 in 2016) and retail floorspace (135,200sqm in 2019 of which 84% is within Westfields). The lack of major industrial precincts in the North District also means it services a regional catchment.

- **Brookvale is a centre without a centre.** While the biggest centre in the LGA, Brookvale does not have a clearly identifiable geographic or activity-based centre. The centre is anchored to the south by the inward-facing Westfield Warringah Mall. Activity is separately contained within the industrial precinct east of Pittwater Road. However, what is lacking is a meeting point for these major land uses.

- **Brookvale's commercial market offer is transitioning.** Brookvale has the third highest commercial rents in the LGA behind Manly and Balgowlah, however it also has the most commercial and industrial vacancies currently on the market. This may be due to the fact that the type of businesses seeking floorspace in the centre are looking for high quality floorspace, yet many of the vacant units are along Pittwater Road, which has low amenity and old commercial stock. This may mean that while stock is available, it is not the stock that businesses want.

- **Current zone is focused on out of centre retail uses**. The current B5 (Business Development) zone is heavily geared toward bulky good uses and, in particular, car showrooms, which are a predominant feature of that strip.

- **Strong inter-LGA connections**. The East-West B-Line will directly connect Brookvale to Chatswood and the Sydney rail and metro systems. The Beaches Link Tunnel will provide faster vehicular access to the Sydney CBD, inner west and airport and connect the Northern Beaches to the Sydney motorway network. This will improve resident access to Greater Sydney.

- **Concentration of social infrastructure.** The recent development of the Northern Beaches Brookvale Community Health Centre adds to a cluster of diverse community infrastructure assets including Brookvale Oval and Leagues Club, cinemas at Warringah Mall and the Northern Beaches TAFE. This widens the variety of people pulled to Brookvale beyond shopping and employment and presents an opportunity to cluster and build on these uses in the future.

Frenchs Forest is a precinct in transition

- **Significant investment in Planned Precinct.** The NSW Government's investment in the new Northern Beaches Hospital and wider Frenchs Forest Planned Precinct will support a residential population by 2036 and be a hub of employment activity.

- **The hospital will be a drawcard for health-related employment.** As a significant new hospital with nearly 500 patient beds and a range of public and private health services, the Northern Beaches Hospital will draw in a number of allied health and commercial uses to the hospital precinct as part of the future B4 Mixed Use zone to the hospital's west.

- **Good east-west connectivity**. The future Brookvale to Chatswood B-Line will connect Frenchs Forest to the Northern Beaches' largest employment precinct and to Sydney's train and metro network at Chatswood. This provides better district and metropolitan connectivity to support Frenchs Forest's growth as a specialised employment precinct.

- **Frenchs Forest has an established but under-performing business park.** The business park to the east of the Hospital straddles Warringah Road and is well established. It does however suffer a number of issues. It lacks connectivity to the new hospital site; it has no central focus; its built form is geared towards large organisations seeking whole buildings or large floors and it lacks amenity and retail provision. This appears to be a wider trend in other similar business parks in Sydney and has resulted in low rents and high vacancies.

- **New uses are creeping into the business park**. An aged care facility has recently been approved at 5 Skyline Place in the B7 Business Park zone north of Warringah Road. This is in response to a demand for aged care services and the site's proximity to the new hospital, however it does risk introducing potential land use conflicts to the precinct.

Manly is the visitor gateway to the Northern Beaches

- **Manly is an international tourist attraction.** In the year ending March 2018, Manly received 2.6 million visitors, of which 42% were from overseas. These international visitors account for a quarter of international visitors to NSW[22].

- **Highly desirable commercial location with low supply.** Many businesses are drawn to Manly's urban centre and beachside location as well as its direct access to the Sydney CBD. The centre's urban scale and competition between different land uses (residential, commercial, retail and accommodation) has limited supply of the 'lowest' value floorspace type (commercial). Much of the stock is also relatively and significantly more expensive than anywhere else in the LGA ($854/sqm compared with an LGA-wide average of $500/sqm). There is low theoretical additional capacity, particularly as residential is allowed in the B2 zoning which will attract a higher return than commercial floorspace.

- **Urban form is a unique and important asset.** The Manly town centre and adjacent streets have a particular urban character that is almost unique in Sydney. A highly pedestrianised centre with three to four-storey fine grained buildings, the town centre creates a positive pedestrian experience among high-quality public realm and diverse building stock with active ground floor frontages. Increasing building massing in the town centre would likely impact this urban character.

- **Demand for retail will continue to grow**. Manly's retail offer is distinct from that of the rest of the LGA because of its tourism role. As a destination for tourists (96% patronised restaurants and cafes and 82% went shopping for pleasure[23]) it caters to a discretionary shopping market which should be safeguarded. It is also a centre for a wider residential catchment, with three supermarkets totalling over 4,000sqm in floorspace and a projected population-driven retail floorspace gap of 1,300sqm by 2036.

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[22] Destination NSW visitor survey data (https://www.destinationnsw.com.au/wp-content/uploads/2018/10/manly-visitor-profile-ye-mar-2018.pdf)
[23] https://www.destinationnsw.com.au/wp-content/uploads/2018/10/manly-visitor-profile-ye-mar-2018.pdf

- **An important night-time and weekend destination**. Manly town centre has a high concentration of restaurants, cafes and bars and is an important evening and weekend economy destination. Manly captures trade from CBD workers coming home via the ferry and, with a regular series of events (such as the Manly Jazz Festival, Taste of Manly festival regular markets and sporting events such as the Cole Classic Weekend) Manly attracts local LGA and Sydney-based visitation throughout the year.

- **Demand for additional commercial is unlikely to be fully met.** Manly's location, amenity and connectivity will continue to drive demand from local businesses to locate there. By prioritising the centres' tourism and cultural focus and seeking to retain its urban character, the ability to deliver additional commercial floorspace will be constrained. This is particularly the case under Manly's B2 zoning that permits residential which makes the delivery of commercial a lower value proposition for developers.

Smaller centres support commercial and retail uses

- **The value of local centre commercial floorspace is increasing**. The past five years has seen a significant increase in commercial sales values in smaller centres within the Northern Beaches. Balgowlah, Newport and Mona Vale have all seen per square metre prices increase significantly while at the same time, the high prices in Frenchs Forest and Manly have declined. Rental prices in these centres are also higher than more established commercial centres such as Belrose, Dee Why and Frenchs Forest. At the same time, the number of commercial properties on the market are low.

- **Future commercial floorspace in local centres has an opportunity to co-locate with other social infrastructure.** Flexible floorspace for a variety of commercial uses could co-locate with the delivery of social infrastructure such as libraries or community work hubs, to support small or home-based businesses.

- **Local commercial growth will be driven by population growth**. A proportion of future commercial floorspace demand will be driven by the demands of a growing population in a local area. These include uses such as doctors surgeries, real estate agencies and accountants. Their distribution will therefore be best directed by the distribution of future infill residential, in the same way that retail demand is guided by population growth.

- **Small gaps in retail supply will emerge in local centres in the future**. Retail supply is closely linked with population growth. By 2036, all of the Northern Beaches' centres will have a gap in supply of retail floorspace. Aside from Warriewood (with an estimated future gap of 5,400sqm by 2036) most of these gaps in smaller centres are around 1,000sqm.

- **Local centres are destinations for evening and weekend activity**. The 30-minute city concept extends beyond the link between home and work. Local centres have an important role to play in providing local services and amenities to support community needs. These include retail uses such as local shopping, cafes and restaurants as well as other community elements such as markets, libraries and communal meeting and event spaces.

- **Mona Vale plays an important local service and retail role for the northern part of the LGA**. The linear nature of the Northern Beaches and car-dominated transport modes makes Mona Vale an important local centre to nurture. While not a likely location for strategic commercial floorspace, Mona Vale's scale and relatively high accessibility is conducive to clustering future demand for population-serving commercial floorspace. This is particularly the case given the observed vacancies in smaller northern centres such as Newport, where there is less critical mass to draw local services trade to.

- **Not all centres will have the same suite of services.** As part of the Northern Beaches' centre hierarchy, not all of the LGA's smaller centres will have the same amount of local retail, commercial and community infrastructure services. Mona Vale's designation as a strategic centre is focused on ensuring that the northern part of the LGA has a local hub to provide a range of services. The demand for future local commercial floorspace will be likely accommodated here to ensure a cluster of business functions.

- **Community infrastructure may play a commercial support role in smaller centres**. In smaller centres such as Newport and Avalon, future community facilities such as libraries may be able to provide short-term workspaces and communal meeting rooms and associated infrastructure to support local businesses and networks.

- **Commercial uses will compete with retail uses for some ground floor floorspace**. Ground floor floorspace in smaller local centres has the ability to accommodate both retail and local commercial uses. With high observed vacancies in centres such as Newport, the provision of additional commercial floorspace is unlikely to be feasible or necessary in the short to medium term.

Industrial precincts play a vital role

- **Northern Beaches' lack of true commercial centre has placed pressure on industrial precincts to accommodate a range of uses.** As the largest employment centre in the LGA, Brookvale serves a range of functions within its industrially zoned lands. This is in part a reflection of the transitioning local economy, but it also reflects a lack of appropriate commercial floorspace for smaller businesses to locate in the LGA. As a consequence, many non-retail businesses locate in Brookvale. Other industrial precincts around Cromer and Mona Vale have retained a higher degree of industrial integrity.

- **Significant amount of old industrial floorspace in Brookvale.** Of all of the identified currently vacant floorspace in Brookvale, over 60% of it is old and un-refurbished. This may reduce the attractiveness to certain businesses by reducing its appropriateness for new uses. Industrial units tend to attract lower rents per sqm ($278/sqm in Brookvale for industrial floorspace versus $636/sqm for commercial) which often makes refurbishment unfeasible.

- **Industrial land values increasing in major industrial precincts, but most acutely in Brookvale**. Throughout the Northern Beaches, industrial land property prices have increased over the past five years to varying degrees in all major industrial precincts aside from Belrose. This has been sharpest in Brookvale, with prices per square metre doubling. This reflects a demand for the product but also, potentially, land speculation.

- **Changing consumer preferences are changing industrial precinct functions.** Broader trends are impacting the role and function of industrial precincts. Increased e-commerce activity is resulting in changing demand for freight and logistics-related floorspace (such as warehousing and distribution). With increasing automation, this is not necessarily reflected in job numbers which may decline or grow slowly but require industrial floorplates to operate. The rise of services such as Uber eats is also impacting industrial lands and are likely to increase in the future. Dark kitchens require no high amenity retail-strip presence to produce and distribute delivered meals and industrial precincts and their boundary lands (such as the currently under-performing strip along Pittwater Road in Brookvale) are increasingly likely to be a natural home for these emerging land uses.

- **A web of local supply chains.** Anecdotally, many trade-based businesses have supply chains almost exclusively within the Northern Beaches' industrial precincts (and even single precincts such as Brookvale). The diversity of uses, from fabrication, wholesale trade supplies, vehicle repairs and scrap metal merchants mean that many businesses directly rely on this industrial agglomeration but, importantly, many residents and businesses are likely to indirectly rely on these versatile precincts through the trades that they procure for renovations and other business services.

- **IN4 (working waterfront) is a small but niche function on the Northern Beaches.** The small pockets of IN4-zoned waterfront in Pittwater operate on a small land area but have a national role in providing specialist maritime services along Australia's East Coast. With little working waterfront remaining in Sydney Harbour, there is increasing importance on ensuring that this service is retained as it cannot be displaced to non-waterfront industrial lands.

- **Pressure on Brookvale's industrial supply.** Relatively recent interventions in the large-lot industrial area to the west of Warringah Mall has resulted in office development creeping into the industrial zone. While no doubt successful, (as an example Lifestyle Working is a highly successful office development), it has raised expectations of future conversion of functioning industrial land. Notwithstanding any future constraints on industrial land supply, there is an important strategic planning issue that must be addressed - whether this part of Brookvale is the optimal location for commercial development, or whether a more accessible cluster is more appropriate.

- **While certain industries may decline in job numbers, they may not decline in land use need**. The increasing automation of some industries may reduce the number of jobs an industrial precinct accommodates but not the role it plays in serving the local economy. Any consideration of changes to land use based on employment numbers must be done carefully.

- **Changing employment profile may make some industrial precincts more diverse**. An increase in knowledge-intensive industries across the LGA, coupled with a relatively low supply of suitable commercial floorspace may continue to push non-industrial uses into industrial precincts and compete with industrial functions, both in terms of price and also in terms of land use conflict. The need to appropriately provide for these potentially competing uses should be a priority, but not within industrial precincts.

13. A VISION FOR THE NORTHERN BEACHES

13.1 Introduction

This chapter provides a vision for the Northern Beaches' variety of employment centres and precincts. The chapter is structured in the following way to provide a logical narrative for Council to consider the recommendations proposed:

- Identification and comparison of potential growth scenarios, using the North District Plan as criteria to consider appropriateness;
- Place-based vision for major centres and precincts, with planning principles to inform decision making and specific recommendations
- LGA-wide thematic vision and planning principles, with accompanying recommendations
- Discussion of game changers above and beyond what have been considered in the strategy.

13.2 Growth distribution scenarios

The distillation of the various pieces of analysis undertaken in this study and articulated in Chapter 12 set up the Employment Study to identify future directions for the Northern Beaches' commercial and industrial precincts.

The demand for future floorspace has been aggregated to an LGA level to allow council to most effectively distribute where this growth should occur. Industrial floorspace demand will require specific zoning to be accommodated in. Commercial floorspace is driven by the role it serves. The identified demand for population-serving commercial floorspace should be distributed to areas where population growth is expected to occur. Strategic commercial floorspace is distributed based on operational considerations as well as Council's aspirations for the future role and function of different centres and precincts.

It is this latter floorspace type – strategic commercial – that is most appropriate to consider under different distribution scenarios.

Two distinct scenarios have been identified for distributing this strategic commercial floorspace within the LGA. These are informed by the strategic role and policy designation of Brookvale and Frenchs Forest. These centres are considered the two logical places for potential commercial intensification due to their location, current centre roles and metropolitan aspirations outlined in the District Plan. While Mona Vale is also identified as a strategic centre in the North District Plan, it is not considered an appropriate place to focus strategic commercial due to its relative inaccessibility and scale.

A third scenario is also presented that distributes future commercial floorspace development across both centres, with a view that Brookvale would be where new floorspace stock is concentrated over the short to medium term, with Frenchs Forest being a longer-term proposition as a fully functioning commercial centre.

Each scenario has been considered against the two relevant Strategic Directions of the North District Plan – Planning Priorities N9 and N10.

Scenario 1: Brookvale focus

Scenario 1 would concentrate most of the future commercial floorspace demand in Brookvale. This would align with the vision to create a formal centre in the precinct and locate future floorspace that best suits the needs of businesses in an area with high accessibility levels, established business networks and good amenity.

This scenario recognises that the current floorspace supply (particularly the vacant stock) is not necessarily the appropriate floorspace for future business needs and that the delivery of a concentration of flexible, small-scale floorspace, possibly co-located with community facilities will create a product and place not yet seen in the Northern Beaches.

This scenario is likely to be able to begin realisation in the short to medium term.

Scenario 2: French Forest focus

Scenario 2 would concentrate much of the future strategic commercial floorspace in Frenchs Forest as part of a concerted effort to increase the quality and amenity of the Frenchs Forest Business Park as the new town centre is established and matures.

This scenario recognises that there is a significant amount of commercial floorspace in the precinct and, with increasing public transport accessibility with the future B-Line, will be more accessible to Northern Beaches residents as well as those coming from outside of the LGA. It also recognises that it would pitch the future commercial floorspace market at the corporate end of the spectrum, which is more likely to be attractive for businesses beyond the LGA boundary.

This scenario is likely to be a long-term solution given the current disconnect between the precinct's commercial built form and that demanded by the market.

Potential floorspace distribution of scenarios

The amount of floorspace needed in future will ultimately be contingent on the businesses seeking floorspace and their operational needs. As such , the two scenarios should consider a range of future floorspace demand and build in a staging and monitoring implementation process to ensure that the delivery of new floorspace continues to meet demand, both in terms of type and volume, rather than deliver significant amounts in the short term and risk flooding the market. The table below identifies the range of potential strategic floorspace to be distributed to either Brookvale or Frenchs Forest. This assumes that ALL of the strategic commercial floorspace (85,600 – 351,800sqm) is distributed to either or both of these centres.

TABLE 131: ESTIMATION OF COMMERCIAL FLOORSPACE DISTRIBUTION LOW AND HIGH

Precinct	Current estimated commercial floorspace supply (sqm)	Estimated additional supply (lower limit)	Estimated additional supply (upper limit)	Potential commercial floorspace range at 2036 (sqm)
Brookvale	182,062	85,571	372,152	267,633 – 533,861
Frenchs Forest	516,365			601,936 – 351,799

Scenario 3: Staged growth

Scenario 3 would be a blend of the two, with different strategic commercial floorspace types being accommodated predominantly across these two centres.

Comparison of growth distribution scenarios

The three identified scenarios have been assessed against two central policies in the North District Plan. As the scenarios concentrate on Brookvale and Frenches Forest, the following policies have been used:

- Planning Priority N9 – Growing and investing health and education precincts (focusing on the Frenchs Forest directions)
- Planning Priority N10 - Growing investment, business opportunities and jobs in strategic centres (focusing on the Brookvale-Dee Why directions)

The assessment compares the three scenarios' approach to strategic commercial floorspace concentration against the multiple directions relevant to both the Frenchs Forest and Brookvale strategic centres. The intent is to identify which growth distribution scenario best aligns with strategic policy aspirations for the Northern Beaches' major strategic centres.

Each criterion has been assigned one of the following:

+	indicates that the scenario positively contributes to the strategic direction
--	indicates that the scenario negatively contributes to the strategic direction
/	indicates that the scenario has a neutral impact on the strategic direction

Planning Priority N9 – Growing and investing health and education precincts

Planning Priority N9 has been used as an assessment framework to assess the relative merits of the scenarios as they relate to Frenchs Forest's strategic directions.

FIGURE 90: IMAGE OF FRENCHS FOREST HOSPITAL

Source: NSW Health Infrastructure (https://www.hinfra.health.nsw.gov.au/our-projects/project-search/northern-beaches-hospital)

TABLE 132: ASSESSMENT OF GROWTH DISTRIBUTION SCENARIOS AGAINST PLANNING PRIORITY N9

North District Plan Direction	Brookvale scenario	Frenchs Forest scenario	Staged scenario
Leverage the investment in the Northern Beaches Hospital to provide a vibrant and well-connected strategic centre	- Draws vibrant uses to Brookvale	+ Focuses critical mass in Frenchs Forest to provide range to uses both inside and near to town centre + Reaffirms future public transport connection by increasing access to Frenchs Forest	+ Acknowledges the gradual maturation of the centre over the long term
Deliver an urban core with a mix of commercial and residential uses, open space and community facilities	- Focuses commercial and community investment away from Frenchs Forest + Residential and open space unchanged as they are part of the Frenchs Forest masterplan and vision	+ Promotes Frenchs Forest as a centre of a variety of uses, including commercial	+ Acknowledges that some uses will be delivered in the short-medium term in the town centre but recognises that commercial market may take longer to integrate
Provide new housing, including affordable housing	/ Does not change this	+ Focus on town centre	+ Focus on town centre
Encourage walkability and cycling within the precinct	+ Does not impact on walkability aspirations, although may help to contribute to a more compact town centre	- Dispersal of commercial into business park may actually disincentivise active transport by separating uses from town centre due to major road barriers - Concentration of commercial in Frenchs Forest may have limited active transport value due to relative isolation from population density and topographic challenges from coast	- Concentration of commercial in French Forest may have limited active transport value due to relative isolation from population density and topographic challenges from coast
Enhance the natural setting of the area by embellishing existing open space	+ Supports it by not encroaching on natural settings that are a barrier between future town centre and business park	- Commercial intensification may create visual impact on surrounding bushland	+ Dispersion of commercial reduces need for higher intensity commercial which is likely to be more in keeping with bushland setting
Attract new, innovative health and medical related commercial premises to support the hospital	/ Focus in Brookvale would be on small business diversity and unlikely to pull major commercial use (e.g. pharmaceutical) away from Frenchs Forest / There is already large commercial floorspace adjacent the precinct that has vacancies - May draw small scale health providers to Brookvale that would otherwise locate near hospital	+ Concentration of uses near to centre is likely to improve activity and may send market signal regarding Frenchs Forest, of which there is already floorspace available that can facilitate growth in the short term	/ No intention of Brookvale competing with Frenchs Forest for larger floorplate commercial users / Potential is already in Frenchs Forest with existing floorspace

North District Plan Direction	Brookvale scenario	Frenchs Forest scenario	Staged scenario
Reinforce the centre as an employment hub for the Northern Beaches, building on the existing business park east of the Wakehurst Parkway	- Focuses future commercial away from Frenchs Forest - May displace businesses from Brookvale that would relocate in Frenchs Forest business park that are not business park-related / Significant floorspace in Frenchs Forest business park already to accommodate future businesses related to the hospital	+ Focuses a variety of commercial floorspace in business park without competition from Brookvale	+ Acknowledges that Brookvale and Frenchs Forest play a different commercial role and does not attempt to compete for larger commercial in Brookvale, thereby preserving the business park function of Frenchs Forest / Acknowledges that it takes time to build a strategic centre

Planning Priority N10 – Growing investment, business opportunities and jobs in strategic centres

Planning Priority N10 has been used as an assessment framework to assess the relative merits of the scenarios as they relate to Brookvale's strategic directions.

FIGURE 91: AERIAL VIEW OF BROOKVALE CENTRE

TABLE 133: ASSESSMENT OF GROWTH DISTRIBUTION SCENARIOS AGAINST PLANNING PRIORITY N10

North District Plan Direction	Brookvale focus	Frenchs Forest focus	Staged approach
Maintain the mix of uses so that Brookvale-Dee Why continues to perform strongly as a well-balanced, self-sustaining combined centre	+ Increases mix of uses, taking advantage of Brookvale's accessibility + Creates clarity in the distinct roles of Brookvale and Dee Why	+ Allows Brookvale to maintain the status quo	+ Increases mix of uses, taking advantage of Brookvale's accessibility + Creates clarity in the distinct roles of Brookvale and Dee Why
Encourage and support improvements to Warringah Mall and better integrate it within the fabric and life of Brookvale-Dee Why	+ Active focus on opening up future Warringah Mall growth with town centre	- Reduces the type of activity that will support a town centre for Warringah Mall to open up to	+ Active focus on opening up future Warringah Mall growth with town centre
Recognise and enhance the economic and employment opportunities along Pittwater Road and encourage revitalisation along the commercial strip	+ Refocuses effort along Pittwater Road to create an appropriate town centre that can reenergise parts of Pittwater Road	- Concentration of floorspace away from Brookvale maintains the status quo - Likely to encourage future commercial floorspace in Brookvale to locate away from Pittwater Road, placing pressure on industrial precincts and not supporting Pittwater Roads' activation	+ Refocuses effort along Pittwater Road to create an appropriate town centre that can reenergise parts of Pittwater Road
Promote walking, cycling and public transport to Warringah Mall, the Brookvale industrial area and Dee Why	+ Creates a true centre to Brookvale that links east and west and supports walkability and access to public transport	- Maintains status quo with Warringah Mall dominating the Brookvale identity with strong car-based focus	+ Creates a true centre to Brookvale that links east and west and supports walkability and access to public transport
Encourage the establishment of new, innovative and creative industries in the Brookvale industrial area	+ Provides floorspace for commercial business aligned to the industrial precinct without compromising the industrial integrity of the IN1 zoned land	- Potentially draws away creative commercial use OR increases pressure on existing industrial to accommodate both creative commercial uses and maintain industrial function	+ Provides floorspace for commercial business aligned to the industrial precinct without compromising the industrial integrity of the IN1 zoned land
Encourage new lifestyle and entertainment uses to activate local streets in Brookvale-Dee Why	+ Creates a central point for this to happen around and an opportunity for community infrastructure co-location + Opens up access to industrial precinct to provide services in a walkable environment + Encourages more fluid movement between Warringah Mall and the surrounding precincts, with a view to opening up these active uses in the town centre	- Maintains same function of Brookvale, giving Warringah Mall greater dominance and placing pressure on industrial precinct to have more activation, which can create land use conflicts	+ Creates a central point for this to happen around and an opportunity for community infrastructure co-location + Opens up access to industrial precinct to provide services in a walkable environment + Encourages more fluid movement between Warringah Mall and the surrounding precincts, with a view to opening up these active uses in the town centre
Improve connections between Brookvale-Dee Why and the Northern Beaches Hospital at Frenchs Forest.	+ Reaffirms the importance of Brookvale as the eastern anchor of a new B-Line route to Brookvale	+ Creates two points of activity to reinforce east-west public transport links	+ Reaffirms the importance of Brookvale as the eastern anchor of a new B-Line route to Brookvale

Summary of comparison

On balance, the staged approach scenario provides the best outcome for the Northern Beaches with regards to strategic commercial floorspace distribution. This scenario acknowledges the relative advantages of both centres but recognises that Frenchs Forest's growth as a strategic commercial precinct is a longer-term proposition. The scenario also capitalises on Brookvale's current public transport accessibility and the demand for a new form of commercial floorspace, co-located with amenity, in the Northern Beaches.

This scenario recognises that commercial floorspace demand will continue beyond 2036 and Frenchs Forest is well placed to support the long-term economic growth of the Northern Beaches and North District.

Regardless of strategy, it is critical that the delivery of such transformative visions be carefully staged and monitored. The nature of such a change to Brookvale's role, function and identity is significant. It is important therefore that a staged approach be applied to the delivery of future commercial floorspace so that the centre can adapt to the market with regards to take-up, timing and appropriateness of the product being delivered. Annual monitoring of development takes up will provide a strong basis for decision making at five-yearly intervals as the centre evolves.

13.3 Precinct vision and planning principles

This section identifies a vision for each of the Northern Beaches' major economic centres and precincts. It provides a series of planning principles that should inform future development and investment and a series of recommendations that build on this vision and principles.

Brookvale – Northern Beaches' hub of activity

Vision

Brookvale will consolidate its role as the Northern Beaches' major strategic centre. Development will concentrate around a civic space between Pittwater Road and Roger Street, with a mix of commercial, civic and entertainment functions in a multi-function centre. The centre will become the focus of activity and the convergence point for Brookvale's multiple functions and leverage the emerging yet informal food and dining scene coming from Brookvale's breweries. Walkable from the eastern industrial precinct and Warringah Mall, Brookvale Oval, Brookvale Public school, Community Health Centre and potential future development at the Sydney Buses depot site, the centre will also be highly accessible to the rest of the LGA and beyond through the B-Line. This range of interacting uses will provide activation day and night, on weekend and weekdays, creating a civic and community hub for the LGA as well as a commercial one.

Planning principles

- **Change to land-use zoning.** The location for a potential future commercial centre is currently under a B5 (Business Development) zoning designation. Under the Warringah LEP (2011) the intent of this zone is to support the operation of nearby centres by providing the type of floorspace that may not be appropriate directly within a retail or commercial core (such as warehousing). To establish a true commercial and civic centre to Brookvale, the land zoning may need to change to better reflect what the intended future is. This may be best achieved by expanding the current B3 (Commercial Core) zone to cover the future town centre.

- **Concentrate commercial floorspace in commercial centre**. All new commercial floorspace will be concentrated in the future commercial centre. The point of origin for this commercial development will depend on Council's preference for the town centre location. This should provide a range of different floorspace types geared towards smaller businesses, including mixed commercial suites and co-working facilities.

FIGURE 92: HOLT AND HART, SURRY HILLS SYDNEY

Holt and Hart is a commercial development in Surry Hills that caters to a range of small to medium sized creative businesses. Covering approximately 14,000sqm over seven levels, it is home to around 50 tenants with communal meeting facilities and services. Suites range from around 50sqm to whole and half floors.

Source: http://dbproperty.com.au/sold-properties/Holt-Hart-50-Holt-Street-SURRY-HILLS/443.aspx, http://www.cstone.com.au/projects/6/holt-and-hart

- **Leverage the emerging creative manufacturing scene.** Brookvale has begun to develop an informal evening and weekend economy on the back of several breweries in the IN1-zoned land. While the IN1 designation should be retained (discussed under the industrial recommendations), the vibrancy that this creates can be used as a drawcard for small creative businesses to the proposed commercial core. This takes the pressure off Manly as the current place of highest desirability for office-based businesses and can be used to set a clear identity for Brookvale.

FIGURE 93: FOUR PINES BREWERY AND BAR, BROOKVALE

Source: SGS Economics and Planning, 2019

- **Update Brookvale Centre structure plan**. Building on the need to stage delivery, the revisions to the Brookvale Structure Plan should test both the preferred centre location from an urban design and massing perspective but also from a lot sequencing perspective. This means that the structure plan should identify where the initial delivery of new commercial should go and the likely direction of future commercial growth. This is important so that the market is not flooded, and the centre can respond to the changing needs of the community over time without locking in a single future.

- **Do not permit residential in the commercial core**. The draft housing strategy identifies that within the current planning controls and with the addition of several target sites, the Northern Beaches is able to meet its housing targets for the next 20 years. It is important that Brookvale's commercial core establishes a clear commercial identity, rather than being considered as a mixed-use centre like Dee Why. This will reduce the challenges of delivering sufficient commercial floorspace by removing land value uplift impacts as a result of residential inclusion and create the opportunity for a greater diversity of floorspace. It will also keep residential out of the wider Brookvale precinct, with the centre flanked on both sides by industrial uses. The encroachment of residential into an industrial precinct has significant issues in terms of introducing land use conflicts.

  This outcome can be reviewed as the commercial core matures and longer-term housing need (beyond 2036) is considered. Abstaining from residential in the medium term preserves longer term flexibility. With proposed five-yearly reviews and annual monitoring, residential may be considered adjacent to the core.

- **Increase building height controls**. In order to accommodate an increase in commercial floorspace that meets the needs of future Northern Beaches businesses, the height limits in the B5 corridor around the future centre should be increased to accommodate more appropriate buildings. While this would ultimately be subject to an urban design review, an increase to around 20 to 25 metres (from the current limit of 11 metres) would increase capacity in the corridor and encourage a more diverse built form type that is suited to an increasingly professional-service focused market.

TABLE 134: HEIGHT OF BUILDING SCENARIO INCREASE IMPACT – BROOKVALE B5 ZONE

Height of building scenario	Conservative capacity (sqm)	Practical capacity (sqm)	Max Theoretical capacity (sqm)
11m scenario (current)	8,070	38,227	52,947
16m scenario	12,105	57,341	79,420
22m scenario	16,140	76,455	105,894

Applying a range of employment job densities (sqm per job) to the conservative capacity estimates in Brookvale's B5 zone gives an indication of the potential employment capacity that such changes could provide. The conservative capacity estimate under the current building height controls may yield between 258 and 646 jobs depending on the intensity of employment use (measured as a range between 25sqm per job down to 10sqm per job. A lift of building heights to 22 metres would result in a possible employment capacity range of 516 to 1,291 jobs.

TABLE 135: POTENTIAL EMPLOYMENT CAPACITY, CONSERVATIVE SCENARIO– BROOKVALE B5 ZONE BUILDING HEIGHT CHANGE OPTIONS

Conservative scenario job	25sqm/job	15sqm/job	10sqm/job
11m scenario (current)	258	430	646
16m scenario	387	646	968
22m scenario	516	861	1,291

Ultimately this is an indication rather than a forecast, as it depends on the type of floorspace provided and the type of business attracted to it. It is also important to recognise that much of the existing capacity under the current building height controls is distributed across several sites rather than concentrated. The lifting of building heights is therefore more likely to realise this floorspace.

- **Do not support commercial conversion in industrial zones**. The retention of industrial functions in Brookvale's industrially zoned land is important in its own right, both to preserve the future land function and to ensure compliance with the North District Plan's Planning Priority N11. It is also important to cluster future commercial floorspace to concentrate activity close to public transport and within the future commercial centre. Allowing ad hoc dispersal of commercial throughout Brookvale will limit the ability for Brookvale's future centre to develop a strong commercial identity.

- **Retain a buffer to industrial uses**. Any future rezoning, or indeed any future development that abuts industrially-zoned land in Brookvale should consider the impact it will have on those uses and ensure that it has no negative impacts such as creating the opportunity for land-use conflicts to arise such as noise that would impact on the industrial precinct's ability to operate effectively. If the bus depot site becomes the future town centre, the masterplan should reflect the transition from commercial to industrial along Powells Road, through large industrial-style units that open up to the street and can accommodate creative making spaces as well as commercial uses.

- **Locate community infrastructure in the centre**. To create a centre that serves a wide community need and provides day and evening, weekday and weekend functions, locating community infrastructure such as libraries (potentially relocated from Warringah Mall), community centres, communal meeting facilities and even theatres or education facilities (such as TAFE) in the future centre will provide a range of activities to draw attraction to Brookvale, without competing with Warringah Mall. Brookvale's high accessibility also means that the centre is well suited to accommodating LGA-wide facilities due to its wide catchment. This approach will help to create a civic and community-focused heart not just for Brookvale but for the Northern Beaches.

FIGURE 94: CHATSWOOD CONCOURSE & CIVIC SQUARE

Chatswood Concourse and Civic square is a high-quality public space on Chatswood's busy Victoria Avenue. The site has a well-used open space that acts as a forecourt to a new theatre, art space, function centre and restaurants. It provides respite from the noise and movement of Victoria Road and benefits from its proximity to Westfield Chatswood.
Source: the concourse website (https://theconcourse.com.au/about/)

- Westfield's future expansion should interact with the centre. Westfield Warringah Mall will continue to drive retail expenditure in Brookvale, with modelling indicating future gap of approximately 8,500sqm of retail floorspace by 2036. Future growth of Westfield into the current at-grade car parking and to the north-east of the site (if it was to occur) should seek to open outwards toward the future centre to enable pedestrian movement through Brookvale and to minimise the 'island' effect that Warringah Mall currently creates. Acknowledging Westfield's major attraction role as a District-level retail centre, major retail floorspace will continue to be drawn to Westfield and a future centre should focus on providing small-scale retail such as restaurants and cafes.

- Retaining the bulky goods functions. The western side of Pittwater Road between Cross Street and Old Pittwater Road have a number of car showrooms that are an explicit permitted use under the B5 zoning). The emergence of a town centre in this precinct is likely to displace some of these uses, although there are potential opportunities to relocate within the LGA along other major arterial roads.

- Understanding displacement impacts. Different town centre locations will have different potential displacement impacts on the current site. Whichever centre location is ultimately preferred, the current land use is unlikely to be accommodated in the commercial centre and will need to be accommodated elsewhere within the LGA.

- Understand the risk of increasing floorspace supply. The delivery of new commercial floorspace must be considered in light of an already high level of vacant floorspace in Frenchs Forest (and to a lesser extent in Brookvale). Although the type of floorspace proposed in the new Brookvale centre is a different type to what is currently on the market, it may exacerbate the vacancies in precincts already struggling to attract tenants. It is important to consider the focus on Brookvale as a significant transformation of the LGA as a whole, and that other precincts would need to adapt over time to provide potentially new roles – in particular Frenchs Forest business park.

Comparison of Brookvale centre options

Brookvale has several options for a potential future town centre. The three identified in this report have been derived from either previous work (Roger Street), or potential at-grade land availability (Bus Depot and Car Park). These are identified in Figure 95.

FIGURE 95: POTENTIAL BROOKVALE TOWN CENTRE SITE LOCATIONS

Source: SGS Economics and Planning, 2019

FIGURE 96: GREEN SQUARE LIBRARY, CITY OF SYDNEY AND THE 'LIVING CAR PARK' MANLY VALE, NORTHERN BEACHES

Civic buildings should actively support sustainable architecture and design and set an example of design excellence in the area. Water sensitive design and solar components can decrease weaster and electrivity usage. Incorporating green infrastructure into retail precincts will ensure that areas are more resilient to heatwaves and link wth Northern Beaches Council sustainability initiatives.

A qualitative review of each of these options has been undertaken in the table below. They articulate the relative merits of each site as the future location of a town centre for Brookvale against a series of criteria.

Each centre location has several benefits associated with a town centre development. A more detailed urban design study would need to be undertaken to refine this, however the flood risk of the Car Park site, plus the potential impact on Warringah Mall's future growth is likely to reduce its viability as an option.

With respect to the Roger Street and Bus Depot site, both have merit for various reasons as well as challenges, particular in land acquisition. The Bus Depot site, from a strategic planning perspective, is best located and, if available, provides a large single site to catalyse development. Further discussion with the NSW Government would need to be undertaken to understand if this was an option and, if so, what alternative sites may be suitable to relocate the depot to.

TABLE 136: REVIEW OF TWO CENTRE LOCATION OPTIONS FOR BROOKVALE

Consideration	Roger Street	Bus Depot	Car Park
Retention of industrial land integrity	▪ Does not encroach on existing industrial land uses and retains a buffer to the western IN1 site with the B5 zoning on Roger Street's western side	▪ Does not encroach directly on industrial precinct but development would abut eastern IN1 precinct, which could create land-use conflict if not properly managed	▪ Does not encroach on existing industrial precinct
Integration with Westfield Warringah Mall	▪ Likely location for public square is not directly adjacent Westfield site ▪ Integration, even over the long term could be challenging due to narrow connection at Cross Street/Pittwater Road/Roger Street intersection	▪ Clear expansion potential with the site directly adjacent Warringah Mall ▪ Future mall expansion into the car park site will open towards a centre at the Bus Depot site	▪ Well integrated
Co-location potential with community infrastructure	▪ Close to school and Brookvale oval ▪ Separated from new Northern Beaches Community Health Hub	▪ Adjacent new Northern Beaches Community Health Hub ▪ Large site with potential to accommodate a range of uses	▪ Opposite Northern Beaches Community Health Hub ▪ Close to current library site (within Warringah Mall) ▪ Close to TAFE
Address Pittwater Road challenges	▪ Potential to directly change some Pittwater Road frontages through new development ▪ Provides longer term opportunity for revitalisation between Cross Street and Old Pittwater Road	▪ Bus Depot has no current active frontage which can be addressed in the future development if considered appropriate ▪ Concentrating activity at bus depot site reduces likelihood of renewal northward towards Old Pittwater Road in the short to medium term	▪ Car Park site has no current active frontage which can be addressed in the future development if considered appropriate ▪ Concentrating activity at car park site reduces likelihood of renewal northward towards Old Pittwater Road in the short to medium term
Supports a mix of uses	▪ Site is between a range of different land uses and has potential to provide commercial uses that provide transitional space between industrial and commercial	▪ Site is between a range of different land uses and has potential to provide commercial uses that provide transitional space between industrial and commercial	▪ Strong retail alignment may not provide a transitional link to business identity of the Brookvale precinct due to separation from industrial uses
Land acquisition challenges	▪ Would require multiple land acquisitions from private landowners	▪ Single site as catalyst for development is attractive and may present opportunity for land swap or other arrangement between NSW government and Northern Beaches Council	▪ Large sites with few landowners. ▪ Interest from Westfield likely in contributing to a town centre development in return for increased retail floorspace
Displacement impacts	▪ May displace some car show rooms, as they are not the type of ground floor uses that would contribute to a n active public domain in a new town centre. This may be possible within the B5 zone immediately north towards Warringah Road.	▪ Single displacement risk with new site for bus dept needed within the LGA to reduce bus dead running. Frenchs Forest would be a logical site	▪ Some displacement impacts with Bunnings but small office development on corner of Pittwater Road and Cross Street could be incorporated into future development ▪ Major displacement would be future retail into this site that may then be required to be incorporated into the town centre
PT accessibility	▪ Along Pittwater Road but not immediately adjacent B-Line stop	▪ Immediately adjacent B-Line stop	▪ Immediately adjacent B-Line stop
Long term growth potential	▪ Many privately held lots of varying sizes that could contribute to	▪ Large site to accommodate range of uses in near to medium term	▪ Long term growth may be constrained with current

	incremental growth, but which may require lot amalgamation	▪ Potential to grow north across Orchard Road	Westfield site plus recent development in Health Hub
Environmental constraints	▪ No flood risk	▪ No flood risk	▪ Medium to high flood risk

Recommendations

Based on the vision for Brookvale and the planning principles, a series of recommendations are proposed.

TABLE 137: BROOKVALE RECOMMENDATIONS

	Action	Responsibility	Timeframe
Action 1	Recommence Brookvale structure plan process, with a focus on commercial and civic functions, testing location preference and building massing options.	NBC	Short
Action 2	Rezone preferred town centre location to B3, retaining current LEP objectives	NBC	Short-medium
Action 3	Change building height controls within rezoned B3 area based on urban design testing		short
Action 4	Require Westfield to focus future growth towards future town centre site to integrate into town centre, with an externally facing approach that reduces Warringah Mall's enclosed identity		Medium
Action 5	Work with TfNSW to progress East-West B-Line		Short
Action 6	Engage with TfNSW to identify potential for bus depot as a site for the future town centre.		Short
Action 7	Identify potential future sites for Bus Depot site within the LGA		Short
Action 8	Relocate community infrastructure under Council's control and accommodate identified future LGA-significant community infrastructure to future town centre		Short-medium
Action 9	Rezone remaining B5 to B6 (discussed in more detail in the Business Zone recommendations)	NB	Short-medium

An established strategic centre at Frenchs Forest

Vision

Frenchs Forest will grow as a population and health-related centre with a mix of residential, community and commercial functions to the west of the hospital that will benefit from close proximity to the hospital and its allied functions.

The Frenchs Forest Business Park will attract certain health-related businesses that benefit from proximity to the hospital but may require full building floorplates or the inclusion of warehousing, space for manufacturing or other non-commercial floorspace use. These include pharma and other med-tech companies such as Pharmaxis, Conmed and Kirsch Pharma that are currently in the precinct. It will also be home to parts, distribution and storage-related functions that do not require the visibility of Brookvale but benefit from the locational accessibility.

Frenchs Forest will also soak up some of the businesses displaced from Brookvale either through changing land uses or price points.

Planning principles

- **Changing the function of Frenchs Forest business park will take time**. Whatever businesses are attracted to Frenchs Forest, it is likely that substantive change, even to the extent of significant reduction in vacancy rates, is likely to take time to eventuate. This is due to the long-term view of the precinct taking on a strong health-related commercial role, or, more significantly, development of existing commercial sites into commercial developments more suited to the Northern Beaches' future needs, taking time to become feasible.

- **Creation of multiple retail centres.** The proposed new town centre adjacent the Hospital (in the B4 Mixed use zone) will create an additional retail destination to the currently operating Forestway shopping centre west of Forest Way. An additional proposed B1 Neighbourhood Centre is proposed directly opposite the Hospital site on Warringah Road. In the medium-term, this creates three separate retail precincts within one kilometre of one another, albeit separated by two significant arterial roads. Should the business park south of Warringah Road attract businesses and activity in the long term, there may be a need to consider a portion of this site for population serving uses such as cafes to support workers.

- **Potential long-term transition of Forestway Shopping Centre.** The delivery of the town centre adjacent the hospital is not anticipated to have a significant impact on retail trade diversion (approximately 7%). However, the fragmentation of retail within the area may have implications for traffic and community focus. Without pre-supposing the landowners aspirations, from a strategic perspective there may be long term benefit in incorporating all of the retail of both Forestway and the future town centre into one place which would free up the current Forestway site for other functions.

- **Constraints on commercial supply in future town centre.** The future role of the Frenchs Forest town centre will be focused on retail and population-serving uses. While the town centre's proximity to the hospital is likely to attract some commercial floorspace demand for businesses allied with the hospital (for instance consulting suites), the provision of larger volumes of floorspace, or standalone commercial developments, is likely to exacerbate the under-performance of the wider Frenchs Forest business Park. To give this established precinct as much chance of success as possible, strategic commercial floorspace in the town centre may be limited to direct demand into nearby vacant buildings. Over the long term, this may result in a transformation of all or part of the Business Park as a satellite health and medical-technology precinct (which it shows signs of nurturing now with some of the established businesses).

- **Frenchs Forest could take on more of a local serving role**. With a transition away from large corporate headquarters in Frenchs Forest, long term uses for the site may be widened to include some uses that may shift from Brookvale, for instance car show rooms or even local industrial services such as mechanics and fabricators.

  Frenchs Forest could also focus more on warehousing and logistics and vehicle sales. The increasing need for just-in-time deliveries and large lots with good arterial road access and population proximity mans that Frenchs Forest may be well suited to accommodating future demand for high density storage and distribution for district-level logistics operations. Permitting Vehicle Sales or Hire Premises in the B7 zone or rezoning part of the Warringah Road facing park to B6 to accommodate future uses may be appropriate if a future Brookvale Town Centre displaces current car yard operations.

- **Consider the potential for Frenchs Forest to absorb Brookvale bus depot.** Should the bus depot site at Brookvale be sold and transitioned to other uses to support Brookvale town centre revitalisation, there may be possibility to relocate the bus depot function to the B7 zone in Frenchs Forest. This would require adjustments to the LEP where Transport Depots are currently prohibited.

- **Consider a staged approach to commercial development.** A focus on the northern portion of the B7 zone as the first step for transformation, as commercial uses could tie to the hospital and town centre sites and have the strongest links to any future B Line transit options down Wakehurst Parkway. Focus on the northern portion also avoids severance issues created by Warringah Road. Monitoring of this site overtime and consideration to improving linkages to the southern portion of the B7 would be required.

- **Investigate longer or flexible trading hours.** For low impact businesses to diversify the night-time economy and support the needs of shift workers, visitors and local residents in the health precinct.

- **Leverage transport improvements**. Consider the future location of transit stops and ensure future land use justifies and supports the transport planning and public transport investment at Frenchs Forest. Advocate for a stop on the proposed B Line express service from Dee Why to Chatswood at a central location of the Frenchs Forest B7 zone to support development of the business park. Potential introduction of a new bus service from Mona Vale to Narrabeen to the Northern Beaches Hospital via the Wakehurst Parkway will provide greater connectivity for the northern portion of the LGA. A bus stop close to the northern portion of the B7 zone will support activity in this part of the zone.

Recommendations

TABLE 138: FRENCHS FOREST RECOMMENDATION

	Action	Responsibility	Timeframe
Action 10	Consider amendments to the LEP to permit Depots in B7 zone or rezone a portion of the site to SP2	NBC	
Action 12	Work with TfNSW to progress the B Line connection between Mona Vale and Frenchs Forest along Wakehurst Parkway.	NBC/TfNSW	Short-medium
Action 13	Collaborate with TfNSW and identify potential future sites for bus depot site within the LGA	NBC/TfNSW	Short-medium

Manly – the Northern Beaches' visitor gateway

Vision

Manly will continue to be the Northern Beaches' tourism gateway, providing a range of cultural, retail, accommodation services for people drawn to the area's natural beauty. Manly will continue to draw visitation from all over Sydney, Australia and globally. The centre will retain its unique and characteristic urban form and strong pedestrian-focused core. Future retail provision will cater towards this market, enhancing and widening the offer.

Increased links to future uses at North Head, future hospital site functions as well as the North Head national park will increase the range of activities accessible from the Manly town centre.

Shop-top commercial development will remain in demand and can be encouraged as part of future developments in the town centre.

Planning principles

- **Continue to encourage commercial development in Manly town centre.** Commercial floorspace in Manly is in low supply and high demand. Future commercial development, either as standalone office or as shop-top floorspace should be supported, within the context of other relevant development requirements. Even under a Brookvale or staged floorspace scenario, Manly will continue to attract demand. Given the range of other uses it will compete with, small-scale developments in Manly are unlikely to undermine the tourism-focused aspirations for Brookvale.

- **Retain building height controls to retain urban scale**. The town centre area already has clear building height controls that protect the scale of the Corso and surrounding street network from over-crowding. This is creates a clear urban structure and retains the centre's pedestrian-scale quality. While market demand for new commercial floorspace in Manly town centre appears to be high, the focus on Brookvale's transition toward a high-amenity commercial centre will divert some of that demand as Brookvale matures. The over-arching value of Manly is its role as a tourism and destination centre and significant intensification of either commercial or residential is likely to impact this.

- **Accommodate future discretionary retail demand**. Moderate population growth out to 2036 in the area surrounding Manly will increase demand for retail provision in the town centre. There is an anticipated residentially driven retail floorspace gap of 1,300sqm by 2036. This is predominantly for high-street retail and hospitality uses such as clothes shops and restaurants and cafes. The delivery of this should be cognisant of continuing changes in the bricks-and-mortar retail sector to ensure that floorspace is not approved when there are significant vacancies in the town centre. Future floorspace should also stay within the current town centre, rather than extending it, to ensure concentration of activity is supported.

- **Supermarket floorspace is sufficiently catered for**. It is anticipated that by 2036, there will be an insignificant additional demand for population-driven retail floorspace above what is currently in the centre or planned already (69 sqm additional by 2036). This on its own would not substantiate the provision of more supermarket floorspace beyond that. If significant changes are proposed to planning, such as a substantial increase in hotel or student accommodation, this would need to be reviewed in this light.

- **Consider the long-term activation of the Royal Far West site**. This study does not advocate for this site to be rezoned or redeveloped. However, given the long term nature of the study and the scale and function of the site, if in future the site was to be considered for redevelopment, care should be given to ensure that activation of the Esplanade, as well as Wentworth Street, as it has the potential to draw trade through

Rialto Square. Consideration should also be given to rationalising the current building height controls to make future planning easier. This should be done through a detailed building massing study, but a starting point would be the consideration of a range between adjacent heights (12 – 25 metres).

FIGURE 97: ROYAL FAR WEST BUILDING HEIGHT MIX

Source: NSW Dept. Planning and Environment, 2019

Recommendations

TABLE 139: MANLY RECOMMENDATIONS

	Action	Responsibility	Timeframe
Action 14	Continue to market the retail demand in the town centre with a view on emerging trends in vacancies	NBC	S-M-L
Action 15	Allow for approximately 1,300sqm of high street-style retail floorspace by 2036, assuming that monitoring in Action 14 does not identify a change in retail performance.	NBC	L
Action 16	Do not permit additional supermarket floorspace in town centre	NBC	S-M-L
Action 17	Rationalise building height controls at Royal Far West site, with accompanying building massing study to ensure appropriateness of scale	NBC	M-L

Mona Vale – local centre for the north

Vision

As the Strategic Centre of the north of the LGA, Mona Vale will continue to provide a range of retail and commercial options for locals and visitors to the area. Other centres in the LGA, namely Brookvale and Frenchs Forest, will be strong attractors for commercial growth, therefore, Mona Vale will focus on playing a complementary role with population-serving commercial floorspace. Maintaining the 'village vibe' of the centre will be key.

Planning Principles

- **Retain retail and commercial floorspace.** Floorspace analysis indicates a gap in retail floorspace capacity to 2036. Under conservative and practical scenarios, a gap is also indicated within the LGA for B4 zones to 2036. Therefore, retention of current retail and commercial floorspace in Mona Vale will be of importance as the centre grows its strategic role in the north of the LGA. The objectives of the B4 zone in the Pittwater LEP currently support residential uses above ground level, where they are compatible with the characteristics and uses of the site and its surroundings. However, retaining the first floor for commercial uses will help to ensure adequate floorspace is retained into the future.

- **Accommodate future discretionary retail demand.** With approximately +1,100 people projected to be living in Mona Vale and its immediate surrounds to 2036, it is expected this will increase demand for retail provision in the town centre. The retail centre is potentially earmarked for a gap of -2,769 sqm of retail floorspace, in predominantly Supermarket, Hospitality and Clothing floorspace. Delivery of floorspace supply in the future should be cognisant of the continuing changes in the brick-and-mortar retail sector and also ensure that floorspace is not approved when there are significant vacancies in the town centre. Future floorspace should also stay within the current town centre, rather than extend it, to concentrate activity, vibrancy, accessibility and protect surrounding IN uses.

- **Retain and manage the industrial and urban services lands of the centre.** Recognising the important role industrial and urban services land plays for Greater Sydney, the IN2 zone in Mona Vale should be safe-guarded and efficiently managed, supporting State government policy.

- **Retain a buffer to industrial uses**. Any future rezoning, or indeed any future development that abuts industrially-zoned land in Mona Vale should consider the impact it will have on those uses and ensure that it has no negative impacts such as creating the opportunity for land-use conflicts to arise such as noise that would impact on the industrial precinct's ability to operate effectively.

- **Leverage transport improvements**. The introduction of a new bus service from Mona Vale to Narrabeen to the Northern Beaches Hospital via the Wakehurst Parkway will provide greater connectivity for the northern portion of the LGA. Consider future transit stops and ensure future land use justifies and supports the transport planning and public transport investment at Mona Vale and surrounds.

- **Implement public domain improvements that are sensitive to the needs of local residents.** Towards 2036, the Retirees age group are expected to have the highest level of growth, at 42%, within Mona Vale town centre and its immediate environs when compared to Adults, Young Adults and Youth at 14%, 14% and 8% respectively. The need for appropriate urban design within the town centre to support their needs and assist mobility will be important. Design features could include wide and flush pavements; appropriate lighting features; shaded areas with seating to rest; accessible and safe connections to modes of public transport; communal, green spaces to socialise and interact; and passive surveillance.

TABLE 140: MONA VALE RECOMMENDATIONS

	Action	Responsibility	Timeframe
Action 18	Consider amendments to the objectives of the B4 zone to retain the first floor of developments for commercial uses and encourage additional commercial floorspace in future town centre developments.	NBC	Short
Action 19	Work with TfNSW to progress the B Line connection between Mona Vale and Frenchs Forest along Wakehurst Parkway.	NBC/TfNSW	Short

Dee Why – Supporting the needs of the local population both day and night

Vision

Dee Why centre will continue to fulfil a mixed-use, population serving role for local residents while complementing the role and functionality of Brookvale. Dee Why will be a revitalised centre offering strong links to the beach, social program of activities, and a vibrant night-time economy.

Planning Principles

- **Strengthen the role of Dee Why as a strategic centre.** Dee Why town centre currently has a significant number of vacancies (46 commercial and 51 retail vacancies, in total Dee Why has the second highest number of vacancies as a centre in the LGA). A retail floorspace gap in Dee Why will not be apparent until post-2031. Ensure future floorspace provision is considered in light of the current vacancies in the town centre. In the short-term, the focus should be on improving the vitality and functionality of Dee Why town centre to help fill current vacancies with only long-term consideration of future floorspace needs.

- **Complement Brookvale Strategic Centre.** Dee Why and Brookvale have been deemed twin strategic centres by the GSC. Rather than compete with Warringah Mall's high-end retail offering, the retail component of Dee Why centre should aim to complement, offer retail diversity and be a point of difference with a fine-grain retail offering aimed at the local population. Dee Why should leverage its accessibility and more localised nature, leaving larger floorplate retail and commercial development to its twin centre.

- **Investigate longer or flexible trading hours.** For low impact businesses to diversify the night-time economy and support the diverse needs of locals. Investigate including consultation with neighbouring residential areas to assess feasibility.

- **Link the town centre with the beach.** Leverage the close proximity of Dee Why town centre to Dee Why beach and investigate opportunities for public domain improvements, including safety by design to assist development of the night-time economy, and support active transport access to the beach that aligns with the objectives of the B2.

- **A social program of events that is inclusive.** Population projections suggest retirees will have the largest percentage of change to 2036 at 29% and young adults the second most significant at 14% for Dee Why centre and its immediate environs. Developing a social program that caters to a variety of ages will help build the day and night economy of Dee Why town centre and include the broader local population.

FIGURE 98: EXAMPLE OF FINE GRAIN RETAILING

Built form features that support fine grain retailing include balancing a mix of open space and built form elements; having a mix of uses; smaller lot sizes which encourage a human scale streetscape; residential uses are setback from the core retail area to encourage active street frontages and retain commercial mix.

TABLE 141: DEE WHY RECOMMENDATIONS

	Action	Responsibility	Timeframe
Action 20	Consider ceiling heights of new development on Pittwater road are 4m or greater on the ground floor and the first floor to promote future flexibility.	NBC	Short
Action 21	Develop a night-time social program that is inclusive for all members of the community.	NBC	Short
Action 22	Implement public domain improvements that include through-site linkages and safety by design between the beach strip and town centre core to support day and night activities.	NBC	
Action 23	Require no net loss of commercial floorspace in Dee Why and require new developments to provide first floor commercial floorspace as part of mixed-use developments.	NBC	Short

The Northern Beaches' local centres support local communities and business networks

Vision

The Northern Beaches smaller locally focused centres will continue to provide appropriate local retail and small office functions to serve the local community and business networks. Centres will support evening and weekend café and restaurant demand and provide walkable access to local community infrastructure that meets the demands of the communities diverse age spectrum.

These include centres such as Avalon, Newport, Manly Vale, Narrabeen, Warriewood, Cromer, Collaroy, Allambie and the various centres along Sydney Road.

Planning principles

- **Local centre expansion will be driven by population growth.** The Northern Beaches' local and neighbourhood centres play vital population-serving function through the provision of local convenience retailing and local services such as accounting or legal services. Their growth is driven by population need and so expansion of commercial or retail floorspace is only anticipated if there are substantive increases in population within their catchment. Centre growth is therefore unlikely beyond what is already provided for in many of the smaller centres. Growth will happen incrementally and organically in response to local population needs. Population-serving employment floorspace is therefore proposed at an SA2 sub-LGA level as a guide to inform Council's decision-making in smaller centres. The distribution of the approximately 17,700sqm of future local commercial floorspace across the LGA is therefore informed by where future population growth is anticipated and is distributed proportionally. This is identified in the table below.

TABLE 142: POTENTIAL POPULATION-SERVING COMMERCIAL FLOORSPACE DISTRIBUTION BY 2036 BY SUB-PRECINCT

Sub-precinct	expected pop change (21-36)	Proportion of total change	Pop-serving floorspace allocation
Mona Vale	14,103	53%	9,468
Terry Hills	63	0%	42
Frenchs Forest	5,529	21%	3,712
Brookvale-Dee Why	3,063	12%	2,056
Manly	3,735	14%	2,508
Total	**26,493**	**100%**	**17,786**

It is anticipated that this floorspace is likely to be spread across the various centres in each of the sub-LGA precincts, although larger centres such as Mona Vale or Dee Why may 'pull' more of this towards them given their wider range of services and amenities.

- **Future floorspace in Warriewood.** As a major retail centre for the LGA, Warriewood's established role will draw future trade to it. By 2036, it is anticipated that there will be a retail gap of up to 5,400sqm, split predominantly across Supermarket, Clothing and Department Store floorspace. It is noted that approximately 1,000sqm of this future demand is for department store floorspace. Warriewood already has a discount department store in K-Mart and may expand this offer, however this retail floorspace type is often the one most under pressure from online retail and so this should be considered when identifying future centre growth.

- **Encourage shop top housing.** The current B1 and B2 zones across all three former Council LEPs permit shop-top housing. This should be supported and retained in the consolidated LEP (noting that these uses are standard in the Standard Instrument).

- **Co-location of social infrastructure.** Population growth will drive future demand for a range of social infrastructure functions throughout the LGA. While this strategy directs large scale social and community infrastructure to Brookvale, there is likely to be a continued need for smaller localised facilities to serve local populations. Local and neighbourhood centres are suited to this use and should be supported. In the absence of retail demand, shop top housing may instead be delivered above small-scale community facilities in these centres.

- **Co-working spaces in vacant retail floorspace.** The increase in localised co-working facilities is something observed across Australia. This strategy identifies Brookvale as the strategic location for an LGA-wide cluster, however smaller centres should be encouraged to accommodate these uses if the floorspace is available. Council can work with local business owners or landlords to actively find vacant floorspace (particularly in centres with high vacancies such as Avalon) to locate these uses that may support small work groups of 5-10 people. Retail vacancies are a good use for this given their accessibility, provision (usually) of kitchenette facilities and greater access to public transport.

FIGURE 99: EXAMPLE OF LOCALISED CO-WORKING SPACE, YACKANDANDAH, VICTORIA

This is an example of a hyper-local co-working space in a converted retail shopfront in the small regional Victorian township of Yackandandah.
Source: SGS Economics and Planning, 2019

Recommendations

TABLE 143: LOCAL CENTRE RECOMMENDATIONS

	Action	Responsibility	Timeframe
Action 24	Anticipate retail floorspace growth at Warriewood of up to 5,400sqm additional floorspace by 2036.	NBC	Long
Action 25	Continue to permit shop top residential in B1 and B2, considering the opportunity for it be delivered above community facilities rather than retail.	NBC	S-M-L
Action 26	Council Economic Development and property teams to collaborate with local retail landlords to identify opportunities for temporary or long-term term co-working facilities in vacant retail frontages.	NBC	S-M
Action 27	Distribute future local commercial floorspace demand by sub-LGA as demand dictates.	NBC	M-L
Action 28	Explore business network opportunities to link local businesses together and to available floorspace through economic development strategy	NBC	S

13.4 LGA-wide vision and planning principles

Industrial precincts continue to support a diverse range of functions

Vision

The Northern Beaches' industrial precincts will continue to support a range of businesses and industries, providing a home for multiple supply chain functions in the local and district economy. The opportunity for Brookvale to co-locate future commercial and industrial functions in the same precinct provides a unique opportunity for small design and fabrication businesses to collaborate in the one precinct, providing Brookvale the opportunity to continue to play an important role as a centre of fabrication, albeit with a potentially different type of product and client.

The Northern Beaches' industrial precincts will continue to support the large trade-based economy with major precincts in Cromer and Mona Vale providing this important function, alongside other population-serving uses.

Mona Vale's marine industry cluster will be preserved and protected to ensure that it continues to provide specialised services to the Australian east coast.

Planning principles

- **Retain and protect all industrially zoned land**. As identified in Planning Priority N11 of the North District Plan, all industrially zoned land should be retained and managed to ensure it continues to support a diverse range of industrial and other urban service functions. The supply-demand gap acknowledges that there is likely to be a deficit of industrial floorspace out to 2036.

- **Consider industrial land operational need, not just its employment generation**. Employment projections are just one indicator that define future need for industrial space. Functions such as warehousing, storage units and distribution centres may have low levels of employment and therefore employment growth, yet their function is a critical one in serving business and consumer networks. This should be a consideration in future uses proposed in industrial precincts of the future.

- **Tighten controls to restrict recreation facilities in industrial zones**. The current Warringah LEP prohibits all type of recreational facilities in IN2 (Light Industrial) precincts but permits with consent Recreation (indoor) in IN1 (General Industrial), Recreation facilities (indoor) in IN2 precincts and prohibits other recreation facilities. The proliferation of gyms, particularly in Brookvale, places pressure on other industrial uses and can create land use conflicts with regards to parking and pedestrian-vehicle conflicts. Recreation facilities (indoor) should be restricted in IN1-zoned land, with a requirement to justify why it cannot locate in another zone. This recognises the limitations of uses such as climbing gyms which require floorspace and building height to operate and cannot locate in other precincts with commercial or retail floorspace. This could be done either as a prohibited use with specific exemptions in Clause 4.6 of the LEP.

- **Build in future flexibility by increasing building height limits**. Industrial precincts in the LGA are capped at 11 metre building heights. These tend to accommodate large, single-storey warehousing or industrial functions with ancillary office. Increasing building heights to permit at least one more storey, to around 16 metres, will provide greater flexibility for future uses that may wish to remain located in the region but require additional floorspace to do so. With very little vacant floorspace available, this approach, over time, will support a gradual transition to higher density industrial uses. Any increase in building heights would need to have precinct-specific built form analysis to ensure appropriateness with other adjacent land uses.

- **Maintain buffers between industrial and non-industrial land uses**. To ensure industrial precincts remain as good neighbours to residential (and even commercial) land uses, consider how any future development faces the adjacent use. Minimising truck movement through residential streets by prioritising movement into internal road networks close to arterial roads can reduce truck traffic. For residentially facing lots, development should consider 'public facing' uses such as front of house functions like offices or show rooms, with heavier industrial uses to the rear. A good example of this is Wattle Road in Brookvale that presents discreetly to the adjacent residential uses.

FIGURE 100: WATTLE ROAD INDUSTRIAL – COMMERCIAL INTERFACE

Source: Google Streetview, 2019

- **Consolidation of state assets**. The transition of Brookvale as a commercially oriented centre may impact the current NSW Government Bus Depot on Pittwater Road. One option (discussed in the Brookvale vision) is to relocate the bus depot to Frenchs Forest. Another option may be to consolidate the bus depot functions at Mona Vale into a multi-storey facility. This would be subject to a range of user needs and network optimisation analysis but would enable the same function to be consolidated in a zone (IN2 General Industry) that already permits it.

- **Mona Vale's IN4 use should be preserved**. The IN4 Working Waterfront land on Pittwater plays an import role well beyond the catchment of the LGA. Its specialisation and limited ability for relocation means it should be preserved and potential land-use conflicts through noise or hours of operation should be managed to ensure a sustainable co-existence with nearby residential uses. This includes ensuring an appropriate balance of noise or operation restrictions adjacent residential areas that do not preclude this land supporting its core function.

Recommendations

TABLE 144: INDUSTRIAL PRECINCT RECOMMENDATIONS

	Action	Responsibility	Timeframe
Action 29	Continue to uphold Planning Priority N11 of the North District plan to retain and manage industrial land. This precludes any rezoning of IN-zoned land in the LGA.	NBC	S-M-L
Action 30	Restrict Recreation facility (indoor) from IN1 land in addition to existing controls in both Warringah and Pittwater LEPs.	NBC	S
Action 31	Increase building height controls to approximately 16 metres across IN1 and IN2 zoned land, following precinct-specific urban design and impact testing.	NBC	S-M
Action 32	Engage with NSW Government regarding the potential for Mona Vale bus depot to redevelop to accommodate current Brookvale Depot operations.	BC	S

Northern Beaches' non-centre business zones - B5, B6 & B7

Vision

The Northern Beaches' non-centre business zones will have clear identities to accommodate a range of out-of-centre functions that support local population and business needs. The accessibility of the LGA's B5 and B6 zones will accommodate uses that currently look to industrial zones to locate but do not require an industrial zoning. These precincts will acknowledge the importance of arterial road accessibility and visibility for businesses such as bulky goods. B7 Business Park zones would best support non-bulky good business types.

The LGA's business parks will continue to provide larger floorplate commercial, ensuing that the Northern Beaches provides a diversity of floorspace options for businesses across the LGA.

Planning principles

- **Consolidate B5 and B6 uses.** Both the Pittwater and Manly LEPs have B6 (Enterprise Corridor uses) and neither have B5 (Business Development). The Warringah LEP has B5 but no B6, with a variation to the standard instrument to focus on vehicle sales. None of the zones in any former LGA permit residential development. The various zones therefore do very similar things. The consolidation of these zones, most likely to a B6 (Enterprise Corridor) designation would reduce confusion and free up a B5 zone to be applied elsewhere in the LGA if required.
- **Encourage gyms and other uses to locate away from industrial precincts**. Gyms have proliferated in the northern Beaches' industrial precincts and, as discussed earlier, create potential conflicts. Enabling Recreation Facilities (indoor) (which include gyms) to locate in the B5 zone in Brookvale, coupled with the prohibition of this use in IN1 zones will help to drive them to areas along arterial roads. If the principle of rezoning Brookvale to B6 is considered, this use is already permitted, and no action would need to be taken.

- **Refine non-core uses in business zones.** The recently built Arcadia Pittwater Private hospital provides a distinct use in this precinct that is likely to serve the ageing population of this part of the LGA in the absence of the Mona Vale hospital. However, to leverage the investment in the Northern Beaches Hospital future clusters of allied services should be considered closer to this precinct, both to gain the co-location advantages and to safeguard B6 zones for more general business and light industry uses.

- **Encourage flexible ground floor floorspace along arterial roads.** Major roads such as Pittwater Road at Brookvale lack activation and have high vacancies, both at ground and first floor. Future development along these strips, outside of centres, should be encouraged to support a range of uses beyond simply traditional retail strips. This requires a variety of floorplate sizes and ceiling heights to accommodate things such as vehicle show rooms and outer bulky goods uses. Considering double-height ground floor ceiling heights, coupled with the inclusion of additional permissible uses such as gyms may provide a home to these uses that cannot locate in a centre but want to be close to centres. This also aligns with the objectives of the B6 zone under the standard instrument. This may require the increase in building heights to enable a change to how some of the incumbent uses make best use of their site. An example of this is the Audi Showroom on Southern Cross Drive in Zetland which has a building height control of 25 metres (compared with Pittwater Road's 11 metres).

FIGURE 101: EXAMPLE OF INTEGRATED & HIGHER DENSITY BULKY GOOD – AUDI SHOWROOM, ZETLAND

The Audi Showroom (right) and the nearby Audi service centre (left) on Southern Cross Drive, Zetland demonstrate emerging built form examples of bulky good uses being well-designed architectural buildings across multiple floors. Their form and use even enable direct co-location with other uses, in this case, residential and retail, as part of the East Village complex.

Source: Audi, https://www.realestate.com.au/sold/property-apartment-nsw-zetland-129066578 ; https://www.linkedin.com/company/audi-centre-sydney/?originalSubdomain=au

- **Continue to support the role of Austlink Business Park.** The Austlink Business Park is a well-functioning precinct with little remaining vacant site for development. The park has a mix and clear separation of bulky good uses and commercial offices. It is not considered necessary to alter any controls to change how this precinct functions. As it reaches capacity, it is anticipated that demand will divert to Frenchs Forest, particularly over the medium – long term with the hospital's maturation and the establishment of the town centre. B7 Business Park zones would best support non-bulky good business types.

Recommendations

TABLE 145: BUSINESS (B5, B6 AND B7) PRECINCT RECOMMENDATIONS

	Action	Responsibility	Timeframe
Action 33	Rezone Warringah's B5 zone to B6	NBC	S-M
Action 34	Prohibit Private Hospitals in B6-zoned land	NBC	S
Action 35	Building height control change along Pittwater Road in line with Brookvale centre proposal of approximately 16 metres, subject to urban design massing studies	NBC	S-M

Mona Vale Road's Rural Lands

Vision

The Mona Vale garden centre precinct will continue to serve a District-wide role as a destination for garden and landscaping supplies.

Planning principles

- **Continue to support rural land operations.** The Mona Vale road corridor provides an important District-level cluster of wholesale and retail nursery and landscaping functions. This area has an established identity. The uses in this zone are unlikely to be able to relocate within the LGA and definitely not as a cluster. The retention of this RU4 zone is encouraged.

Recommendations

TABLE 146: RURAL LANDS PRECINCT RECOMMENDATIONS

	Action	Responsibility	Timeframe
Action 36	Retain and continue to support RU4 zoning along Mona Vale Road	NBC	S-M-L

13.5 Consolidated list of considerations for LEP and DCP

Considerations for LEP

The various considerations relevant to the LEP that are identified in this chapter are summarised in Table 147.

TABLE 147: SUMMARY OF PROPOSED AMENDMENTS OR CONSIDERATIONS FOR LEP

Location	Proposed amendment
LGA-wide	Retain all industrially zoned land in the LGA (IN1, IN2 and IN4)
LGA-wide	Restrict Recreation facility (indoor) from IN1 land in addition to existing controls in both Warringah and Pittwater LEPs.
LGA-wide	Increase building height controls to approximately 16 metres across IN1 and IN2 zoned land, following precinct-specific urban design and impact testing.
LGA-wide	Prohibit Private Hospitals in B6-zoned land
LGA-wide	Retain and continue to support RU4 zoning along Mona Vale Road
Brookvale	Rezone preferred town centre site to B3 (Commercial Core), retaining current LEP objectives, once preferred location is confirmed.
Brookvale	Increase building height controls within B3 zone up to 25 metres, contingent on urban design, massing and other relevant studies.
Brookvale	Rezone remaining B5 (Business Development) in Brookvale to B6 (Enterprise Corridor)
Brookvale	Building height control change along Pittwater Road in line with Brookvale centre proposal of approximately 16 metres, subject to urban design massing studies
Frenchs Forest	Consider amendments to the LEP to permit Depots in B7 zone or rezone a portion of the site to SP2
Frenchs Forest	Consider amendments to the LEP to Permit with consent Restaurants or cafes in the B7 zone
Manly	Rationalise building height controls to between 12 and 25 metres on Royal Far West School site, should it be considered appropriate for long-term development, following testing on urban design, building massing and identified future use.
Mona Vale	Consider amendments to the objectives of the B4 zone to retain the first floor of developments for commercial uses

Considerations for DCP

The various considerations relevant to the DCP that are identified in this chapter are summarised in Table 148.

TABLE 148: SUMMARY OF PROPOSED AMENDMENTS OR CONSIDERATIONS FOR DCP

Location	Proposed amendment
Brookvale	Require Westfield to focus future growth towards future town centre site to integrate into town centre, with an externally facing approach that reduces Warringah Mall's enclosed identity
Manly	Do not permit additional supermarket floorspace in town centre
Dee Why	Ensure ceiling heights of new development on Pittwater road are 4m on the ground floor and the first floor to promote future flexibility. This will ensure that Pittwater road can accommodate car showrooms, cafes, breweries and dark kitchens on the southern and northern ends.
Dee Why	Implement public domain improvements that include through-site linkages and safety by design between the beach strip and town centre core to support day and night activities.

13.6 Alignment of proposed actions and District Plan objectives

To ensure that the range of objectives in the District Plan are accounted for in these actions, they have been summarised against each objective in Table 149.

TABLE 149: ALIGNMENT OF ACTIONS AND DISTRICT PLAN OBJECTIVES.

	Planning Priority N6 Creating and renewing great places and local centres, and respecting the District's heritage	Planning Priority N9 Growing and investing in health and education precincts	Planning Priority N10 Growing investment, business opportunities and jobs in strategic centres	Planning Priority N11 Retaining and managing industrial and urban services land	Planning Priority N12 Delivering integrated land use and transport planning and a 30-minute city	Planning Priority N13 Supporting growth of targeted industry sectors	Planning Priority N14 Leveraging inter-regional transport connections	Planning Priority N18 Better managing rural areas
Action	Objective 12 Great places that bring people together	Objective 21 Internationally competitive health, education, research and innovation precincts	Objective 22 Investment and business activity in centres	Objective 23 Industrial and urban services land is planned, retained and managed	Objective 14 Integrated land use and transport creates walkable and 30-minute cities	Objective 24 Economic sectors are targeted for success	Objective 26 Freight and logistics network is competitive	Objective 29 Environmental, social and economic values in rural areas are protected and enhanced
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13.7 Game changers

This strategy and its proposed precinct visions outline some ambitious future scenarios for some of the Northern Beaches' employment centres. In particular, the conception of Brookvale as a future commercial and civic centre is considered a game change as it is. The realisation of such a vision would be a significant change to the economic role and function of the Northern Beaches' largest centre.

Beyond what is already proposed in this chapter, there are several other 'game changers' that, were they to happen, would have an impact at an LGA or precinct-specific level.

University presence

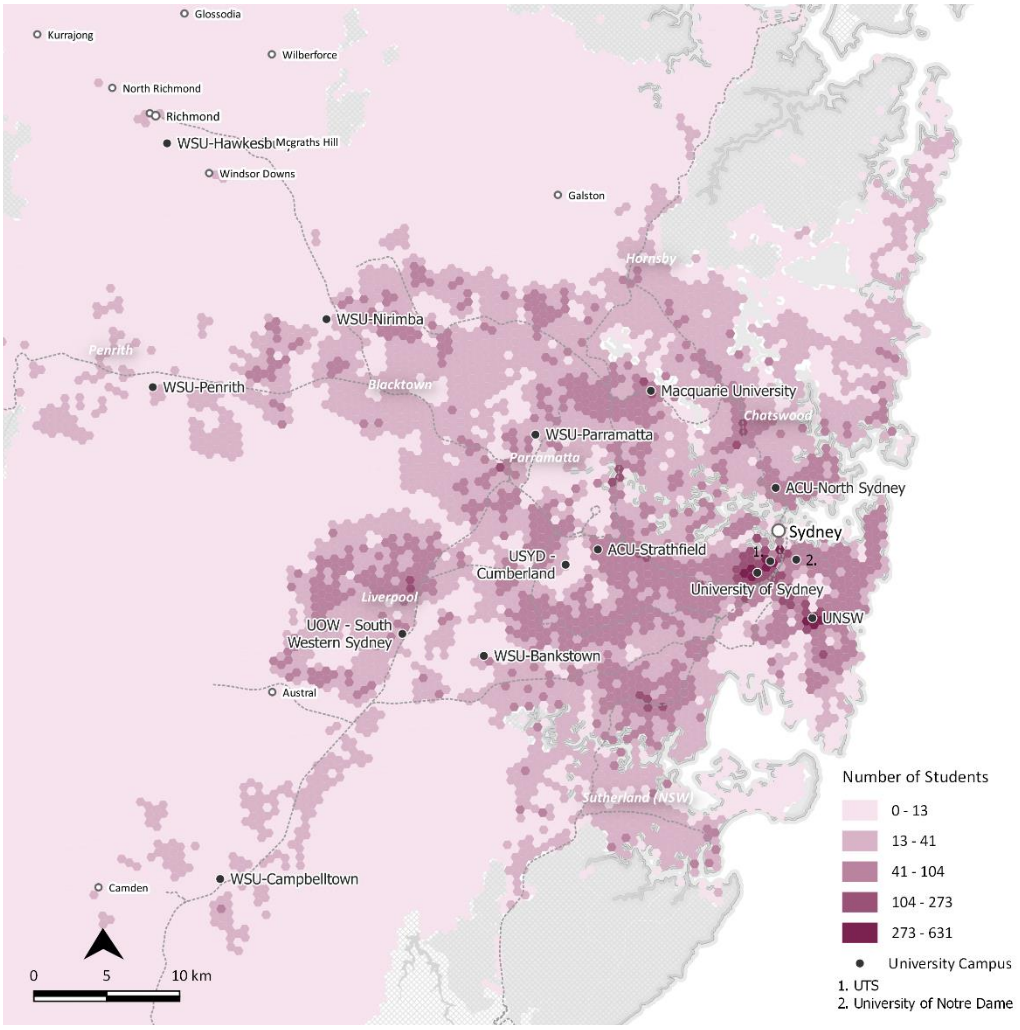
Potential impact

The attraction of a University to the Northern Beaches would be considered a major change to the current identity of the LGA. Universities have a distinct employment profile, a metropolitan level 'pull factor' for employment and transport and accessibility requirements that would likely change certain internal and external travel patterns into the Northern Beaches. What these changes are would depend on the type of university or faculty attracted to the Northern Beaches and a campus would be located. Figure 102 and

Domestic students, unsurprisingly, are distributed all across Metropolitan Sydney, including a relatively uniform presence throughout the Northern Beaches.

Figure 103 identify where domestic and international students reside respectively.

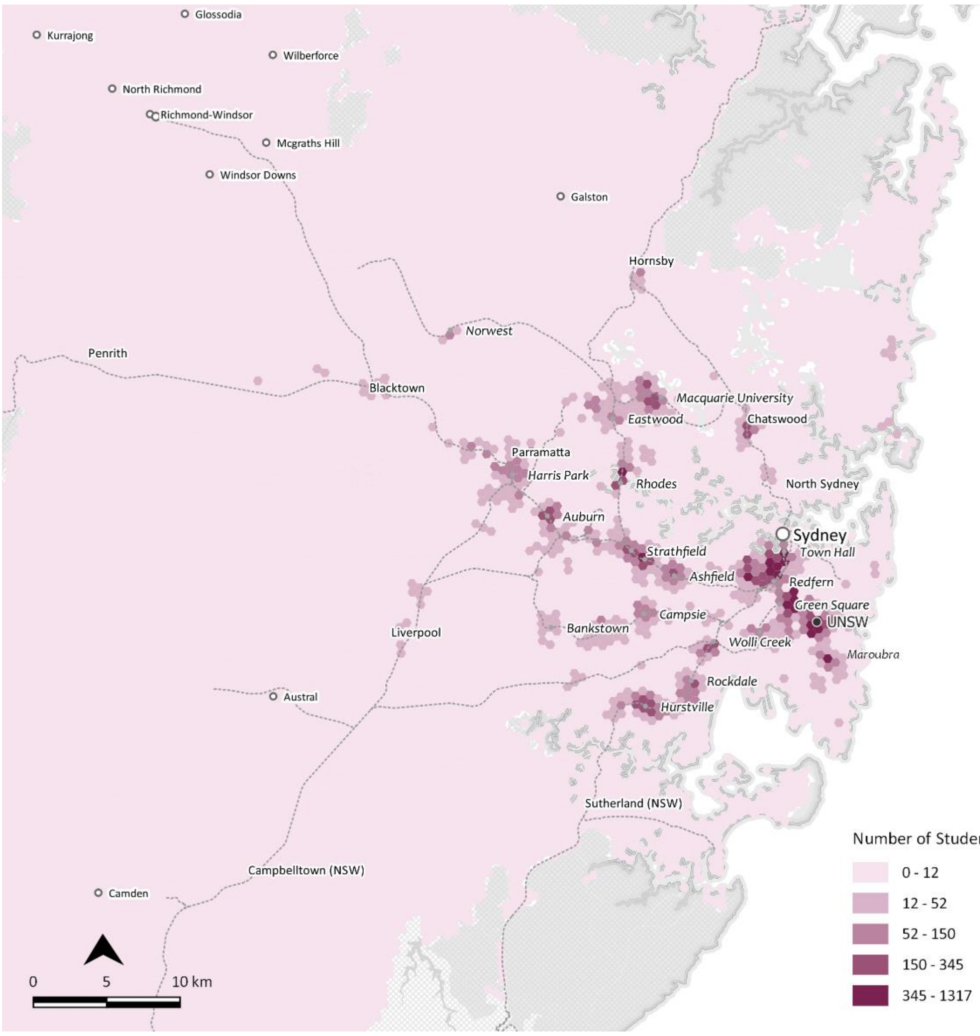
FIGURE 102: DOMESTIC STUDENT LOCATIONS (AGE 18-25)



Source: SGS Economics and Planning, 2017

Domestic students, unsurprisingly, are distributed all across Metropolitan Sydney, including a relatively uniform presence throughout the Northern Beaches.

FIGURE 103: INTERNATIONAL STUDENT LOCATIONS (AGE 18-25)



Source: SGS Economics and Planning, 2017

International students are clustered close to universities or, to a lesser extent, in centres with strong rail-based public transport access and a strong cultural identity. Chatswood and Eastwood are good examples of such centres with their strong Chinese identity.

A future university would most likely operate as a single faculty drawn to the LGA for a particular reason.

As a designated Health and Education centre, Frenchs Forest would be a logical location for a future university presence. This is due largely to the clear link between health services and education, attracting medical or allied research faculties to the precinct. The adjacent B7 zone would provide an appropriate location for such an institution and would necessitate a re-think of that precinct’s function beyond its current role and what is proposed in this strategy.

It is important to recognise however that the Northern Beaches is competing for a university presence with many other centres or LGAs across Sydney. The Northern Beaches Hospital may be considered an attractor, but most universities offering medical-related degrees have pre-existing relationships with other hospitals, either through adjacency (such as Prince of

Wales and the University of NSW or Royal Prince Alfred and the University of Sydney) or through established partnerships, with hospitals such as Liverpool and Concord being designated teaching hospitals with existing medical faculty relationships. Many of these hospitals also have one or more Medical Research Institutes (MRIs) in their precinct which often act as a research link between universities and hospitals. A medical-related university presence in Frenchs Forest therefore is likely to be contingent upon the emergence of research institutes or, alternatively, commitment by private sector biomedical companies with direct links to the hospital, such as through enduring medical trial arrangements.

One advantage Frenchs Forest does have over some of its centre competitors is the presence of the large-lot commercial/industrial precinct in the Frenchs Forest business Park. This provides the land for such an institution to locate relatively easily and the precinct is already home to several biomedical or pharmaceutical businesses.

A wider view of the Northern Beaches' relative competitive offer to a university or Vocational Education and Training (VET) provider are its economic profile and several institutional residents.

The LGA's high level of trade-related employment (both in terms of residents and the function of many of its employment precincts) lends itself to establishing a clear presence as a trade-focused centre of training. The Northern Beaches TAFE already offers a range of trade-related courses such as carpentry and this could potentially be expanded through stronger integration within precincts such as Brookvale This may include a more comprehensive governance model of business and TAFE-integration with a view to training local apprentices to then remain in the LGA's local businesses, possibly also extending to areas of specialisation such as marine industry in and around Pittwater. This approach is less likely to have a major physical impact on the LGA and more a governance and business development one.

FIGURE 104: UNSW WATER RESEARCH LABORATORY, MANLY DAM

Source: http://www.wrl.unsw.edu.au/contact-us

The Northern Beaches is also home to UNSW's Water research laboratory at Manly Dam. This highly specialised and location-specific university presence could be built on by expanding this presence to the currently under-utilised former parade ground facility at North Head or the currently vacant former Manly Hospital. The North Head precinct is adjacent to Sydney Water North Head Wastewater Treatment Plant. Such an approach would attract a specific type of university presence such as engineering or chemistry.

FIGURE 105: NORTH HEAD WASTEWATER TREATMENT PLANT

Source: https://www.sydneywater.com.au/SW/education/Wastewater-recycling/Wastewater-treatment/north-head-wastewater-treatment/index.htm

Implications

There are a number of potential implications that may result from the attraction (or expansion) of a university to the Northern Beaches. These would need to be considered in light of the preferred location and function.

- **Consideration of planning control changes at Frenchs Forest.** The anticipated location of a university presence at Frenchs Forest will most likely impact on the current B7 zone directly to the east of the Northern Beaches Hospital site. Large universities throughout Sydney are often under an SP2 (Infrastructure) zoning. This could be applied to a preferred location in the B7 zone, logically directly to the east of the hospital (Figure 106). Alternatively, if the facility is considered to be small, then an allowance for' Educational Establishment' as a permitted use under the B7 (Business Park) land zone designation may be appropriate.

FIGURE 106: POTENTIAL SP2 REZONING TO ACCOMMODATE FUTURE UNIVERISTY

Source: NSW Government, SGS Economics and Planning, 2019

- **Consideration of need for student accommodation.** Student accommodation is heavily geared toward international students and is often outsourced to third-party housing providers to deliver (such as Iglu or Urbanest). Depending on the university's scale and the type of facilities expected there, there may be need for student accommodation nearby. This could be considered as part of future housing stock in or near to the future Town Centre to maximise active transport. This should only be explored once a clear understanding of what a future university partner anticipates being in the precinct.
- **Consider the co-location of the TAFE.** Depending on the services offered by a possible future university, there may be benefit in considering the co-location of future faculty/ies with the Northern Beaches TAFE to maximise transport and facility usage and, in the context of Frenchs Forest, reinforce the centre's Health and Education designation.

A residential role for Brookvale

Potential impact

Current (draft) housing capacity analysis suggests that the Northern Beaches has sufficient capacity to meet its housing demand through until 2036. Separately, the GSC acknowledges the importance of industrial land retention (through Planning Priority N11 of the North district Plan) and the land use conflict risks that often present when industrial and residential uses come into direct contact (the GSC's Thought Leadership Paper "A Metropolis that Works[24] (GSC 2018).

Notwithstanding this, Brookvale will continue to evolve well beyond 2036. The vision and accompanying strategies outlined in Section 13.3 provide a future for Brookvale geared towards a commercial and civic role. As this vision takes shape, it is likely to create a vibrant centre with a range of recreational and service amenities. This is attractive to future high-density living models, particular with the B-Line connecting both North-south and East-West.

The strategy presented in this report builds in future flexibility for higher value land uses – residential – by not permitting them now but acknowledging that this evolution may take place beyond 2036. This could be part of a future commercial centre transition or even a substantial re-development of the current B3 zone on the Westfield Warringah Mall site.

Implications

There are a several implications that would need to be considered if residential were to be permitted in the centre of Brookvale in the long term.

- **The role of Westfield Warringah Mall.** This strategy already discusses the aspiration for future expansion of Warringah Mall to open outward into a future town centre. An even more transformative vision would be to reconceive the current Warringah Mall site as a mixed-use residential development with retail distributed throughout the expansive site, integrated with residential development, open space, future community infrastructure and, importantly a strong relationship with the commercial and civic site proposed in this strategy.
- **Public transport capacity.** Any substantive increase in population in Brookvale will place additional pressure on the existing public transport network. Notwithstanding Council's aspirations to retain its already high job self-containment rates, the likelihood of additional residents commuting out of the LGA is high and future development must be considered in light of the capacity of the B-Line to service this increase in population.

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[24] Greater Sydney Commission. 2018 "https://www.greater.sydney/a-metropolis-that-works"

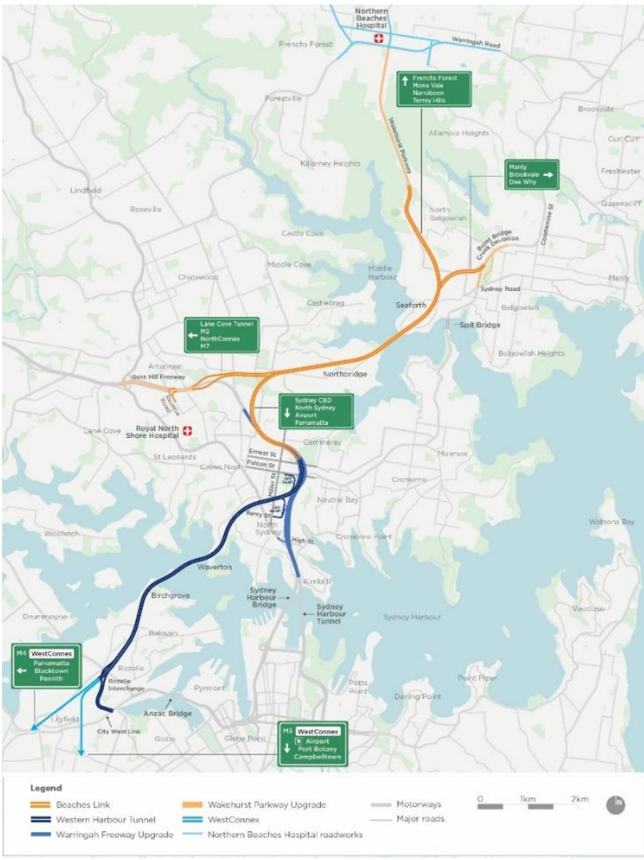
- **Impact on industrial operation.** The introduction of residential into Brookvale's employment precinct is likely to influence property prices, both within the zone that it happens as well as in adjacent areas. Any future residential in Brookvale will be adjacent industrially-zoned land – either as part of a Westfield redevelopment or in the current B5 zone on the eastern side of Pittwater Road. As a long-term proposition, the role and function of industrial precincts may have evolved by this time, however if they continue to play a role similar to now, then it places increased emphasis on the need to retain these uses through an industrial-style zoning designation. It may also require more stringent consideration of permissible uses so that the industrial precinct does not simply become cheap real estate for commercial or recreational uses, with those functions needing to be effectively incorporated into future masterplans in mixed-use areas.
- **Integration with Northern Beaches TAFE.** A future redevelopment of Warringah Mall should also open up connections to the Northern Beaches TAFE campus to better integrate this facility with the future Brookvale centre.

Future transport links

Potential impact

This study already assumes the delivery of both the East-West B-Line public transport route and the Beaches Link tunnel. The currently proposed Frenchs Forest spur, joining an upgraded Wakehurst Parkway (Figure 107) will improve access to the Frenchs Forest Precinct. As this precinct matures, the increased accessibility to larger employment centres (such as the Sydney CBD) may increase the precinct's attractiveness, however attraction will also be driven by the complexity of uses in this precinct that will choose their locations based on a number of factors, of which accessibility is one.

FIGURE 107: PROPOSED BEACHES LINK REFERENCE DESIGN MAP – SEPTEMBER 2019



Source: TfNSW, Roads and Maritime Services https://www.rms.nsw.gov.au/projects/sydney-north/western-harbour-tunnel-beaches-link/index.html

With a changing residential profile, the Northern Beaches is becoming an increasingly professionalised workforce with a high proportion of residents travelling to major centres of employment such as the CBD, North Sydney and Macquarie Park for work. It is anticipated therefore that the Beaches Link will benefit residents by increasing their connection to other LGAs.

The proposed East-West B-Line is considered as part of the strategy, rather than a game-changer in its own right although it will create direct links between the Northern Beaches and Sydney's rail system, an important improvement to transport accessibility in the District.

Implications

The implications of the Beaches Link have been factored into the strategies provided, however broadly, the following are identified in terms of it being considered a game changer for the LGA.

- **Improved access for workers in certain sectors.** Many of the jobs that people come into the Northern Beaches to undertake are retail and, increasingly likely, health and education with the new hospital .The Beaches Link may improve connectivity for those workers but it is acknowledged that as a toll road this will impact on the ability or willingness for lower-paid workers to choose as a transport alternative.
- **Benefits realised in southern part of the LGA.** The centre likely to benefit most from the Beaches Link is Frenchs Forest, with a relatively close connection to one spur of the tunnel entrance. As a car-based transport solution the benefits further north in the LGA are anticipated to diminish as cars re-engage with the local road network.

APPENDIX 1 – STRATEGIC POLICY AND PRIORITY REVIEW

This chapter provides a strategic policy overview, with a focus on state, local and other strategies and polices that inform the future direction of Northern Beaches economic development.

Strategic plans from the NSW Government and Northern Beaches Council provide the context for future land use in the Northern Beaches LGA. These plans anticipate increases in population and employment and provide guidance about where this growth should occur. The need to accommodate growth must be balanced with land use limitations as land use conflict may occur in places where the most intense development is intended.

13.8 State Policies

Greater Sydney Region Plan (2018)

The Greater Sydney Region Plan (GSRP) is a metropolitan strategy that responds to the current and future planning challenges of the Greater Sydney Region. The aim of the GSRP is to transform Greater Sydney into a metropolis of three cities: The Western Parkland City, the Central River City and the Eastern Harbour City over the next 40-year period. This vision will be progressed via a series of objectives centred on infrastructure, collaboration, liveability, productivity and sustainability.

Northern Beaches Council is in the Northern District. Directions for productivity include developing a well-connected city that supports shorter, localised connections to jobs, schools and services through integrated land use, transport and infrastructure planning; and enhancing productivity through strategic planning that enables jobs and skills growth and investment for LGAs, such the Northern Beaches.

Implications for Employment & Economic Centres

The GSRP includes ***Objective 21: Internationally competitive health, education, research and innovation precincts.*** This objective recognises successful health and education precincts are internationally competitive and are also innovation districts - an active ecosystem that includes health and education assets, medical research institutions, are transit accessible and have a complementary mix of industry tenants, housing and ancillary facilities and services.

Strategies to develop these precincts include conditions for the co-location of health and education facilities; high levels of accessibility; attraction of associated businesses and housing opportunities for students and workers within 30 minutes of the precinct.

Objective 22: Investment and business activity in centres. This objective identifies the role of centre hierarchies in effective strategic planning. Centres play a role in delivering jobs close to home, facilitate an effective public transport system and provide a range of social and economic infrastructure to support local and metropolitan communities.

The GSRP outlines the importance of clear and consistent application of the centre hierarchies to ensure that retail, commercial and other population-serving uses can be effectively distributed to meet the needs of the communities that each centre supports.

Not all centres are the same and the GSRP centre's hierarchy identifies three centre types relevant to Greater Sydney:

- Metropolitan Centres – the focus for Sydney's global economic competitiveness.
- Strategic Centres – to provide access to goods, services and jobs for a range of different communities.
- Local Centres – to support day-to-day access to goods and services.

Objective 22 also identifies the following other types of economic places:

- Health and Education precincts - clustered around a hospital and/or major tertiary education institution.
- Economic Corridor – that include multi-LGA precincts with a high concentration of jobs, often linking multiple centres.

To create a more productive city, the GSRP aims to grow jobs in metropolitan centres, health and education precincts and strategic centres.

Frenchs Forest is classified as a Health and Education precinct. Manly, Mona Vale and Brookvale-Dee Why are classified as Strategic Centres. Employment growth in these areas and public transport access to these centres could create opportunities for redevelopment. Balgowlah, Manly Vale, Freshwater, Narrabeen, Warriewood, Newport, Avalon, Forestville and Glenrose are designated Local Centres.

The GSRP includes ***Objective 23: industrial and urban services land is planned, retained and managed*** which recognises the value of industrial lands within a city where it is not necessarily the number of jobs provided, but the operational role and function industrial lands play that is of importance.

Industrial lands in the Northern Beaches support local businesses and communities. Industrial lands can include a range of activities from major freight and logistics, heavy manufacturing, light industry, to urban services and creative uses.

The principles for managing industrial and urban services land across Greater Sydney, as identified in the GSRP, includes:

- **Retain and manage –** all existing industrial and urban services land should be safeguarded from competing pressures, particularly residential and mixed-use zones.
- **Review and manage** – review all industrial and urban services land under this approach to either confirm its retention or manage uses to allow sites to transition to higher-order employment activities and seek appropriate controls to maximise business and employment outcomes.
- **Plan and manage** – in land release areas identify additional industrial and urban service land.

The Northern Beaches is designated as a 'retain and manage' LGA.

Objective 24: economic sectors are targeted for success identifies several industry sector strategies that facilitate business innovation. For example, mobile business advisors are based in the Northern Beaches this will help to create the conditions for a stronger economy and facilitate job growth in the area.

North District Plan (2018)

The North District Plan (NDP) is a 20-year strategy, linked to the GSRP, that aims to manage growth in the District. The NDP informs local level strategic planning, assessment of planning proposals and gives effect to the GSRP.

Implications for Employment & Economic Centres

Key industrial, strategic centres, collaboration areas and health and education precincts have directives and priorities. The Plan seeks to align job growth services and transport to deliver a well-connected 30-minute city.

Planning Priority N1 – Planning for a city supported by infrastructure: where planning decisions need to support new infrastructure, equitably enhancing local opportunities, inclusion and connections to services. A potential indicator is an increase in 30-minute access to a centre/cluster. This action could include improved east-west bus services from Northern Beaches to Chatswood and the Beaches Link and Western Harbour Tunnel, providing better connectivity to Frenchs Forest Strategic Centre.

Planning Priority N9 - Growing and investing in health and education precincts: the Frenchs Forest Health and Education precinct is led by the NSW Department of Planning and Industry, State agencies, NSW Health and Northern Beaches Council to progress planning. The newly constructed $600 million Northern Beaches Hospital will continue to anchor growth in the North District.

Currently it is estimated 9,300 people work within the Frenchs Forest precinct. The NDP identified potential job targets of approximately 12,000 jobs by 2036 as a baseline and 13,000 as a higher target. One of the key actions is the delivery and implementation of a Place Strategy and Infrastructure Plan for this precinct.

FIGURE 108: FRENCHS FOREST HEALTH AND EDUCATION PRECINCT

Source: Greater Sydney Commission, 2018

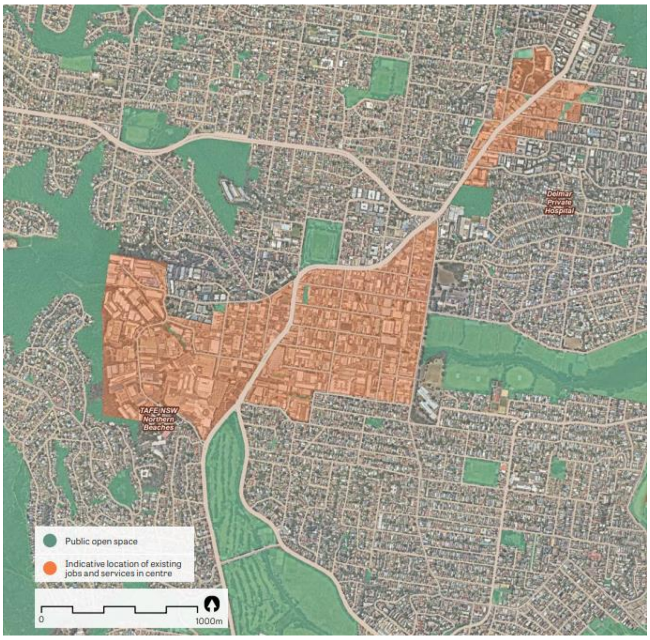
Planning Priority N10 – Growing investment, business opportunities and jobs in strategic centres: strategic centres must make use of jobs, services and public transport connectivity. Specifically, this Planning Priority identifies actions for the District's Strategic Centres. Of relevance to the Northern Beaches LGA is the **Frenchs Forest** strategic centre which is also identified as a health and education precinct. Frenchs Forest and the Northern Beaches Hospital will help to create a vibrant strategic centre core which will provide a location for knowledge intensive jobs, innovation and service delivery. The hospital and recent investments into transport will facilitate future development of the area.

Specific employment related actions for Frenchs Forest, as designated by the GSC, include:

- Leverage the investment in the Northern Beaches Hospital to provide a vibrant and well-connected strategic centre.
- Deliver an urban core with a mix of commercial and residential uses, open space and community facilities.

- Attract new, innovative health and medical related commercial premises to support the hospital.
- Reinforce the centre as an employment hub for the Northern Beaches, building on the existing business park east of the Wakehurst Parkway.

FIGURE 109: BROOKVALE-DEE WHY STRATEGIC CENTRE



Source: Greater Sydney Commission, 2018

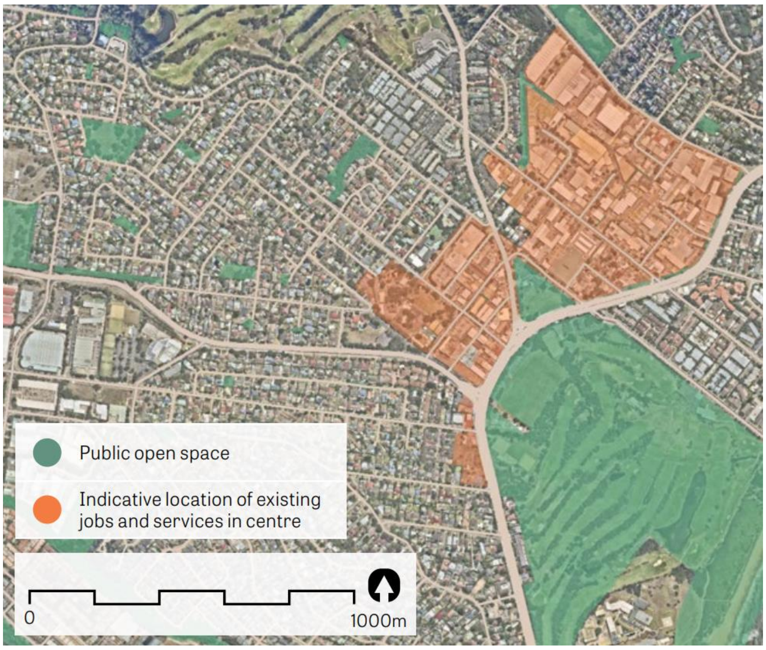
Brookvale-Dee Why is an industrial and mixed-use area supporting niche manufacturing wholesale industries in the day, as well as a local night-time economy. It contains **Warringah Mall**, one of the largest retail areas in Greater Sydney, as well as a TAFE NSW campus. The 2016 estimate of 20,000 jobs is projected to grow to between **23,000 - 26,000 by 2036**.

Specific employment related actions for Brookvale-Dee Why, as designated by the GSC, include:

- Maintain a mix of uses so that Brookvale-Dee Why continues to perform strongly as a well-balanced, self-sustaining combined centre.
- Encourage and support improvements to Warringah Mall and better integrate it within the fabric and life of Brookvale-Dee Why.
- Recognise and encourage the economic and employment opportunities along Pittwater Road and encourage revitalisation along the commercial strip.
- Promote walking, cycling and public transport to Warringah Mall, the Brookvale industrial area and Dee Why.
- Encourage the establishment of new, innovative and creative industries in the Brookvale industrial area.
- Encourage new lifestyle and entertainment uses to activate local streets in Brookvale-Dee Why.

While these NDP treats Brookvale and Dee-Why as one centre, the actual form and function of these places is distinct and are therefore being treated in this paper as separate, yet complementary centres.

FIGURE 110: MONA VALE STRATEGIC CENTRE



Source: Greater Sydney Commission, 2018

The Northern District Plan also identified **Mona Vale** as a mixed-use strategic centre. The area provides a range of functions including retail, commercial, community, light industrial and residential uses. The centre is identified as a vibrant centre by day and is identified as a high amenity centre. The introduction of the B line into the area has improved the connectivity of Mona Vale to the CBD. The 2016 estimate of 4,300 jobs is expected to grow to between **5,000 - 6,000 jobs by 2036.**

Specific employment related actions for Mona Vale, as designated by the GSC, include:

- Protect and enhance the commercial and retail function of the centre to provide employment growth and maintain high job containment.
- Ensure sufficient retail and commercial floorspace is provided to meet future demand.
- Leverage Mona Vale's role as a north-south and east-west bus interchange to facilitate a greater diversity of employment and mixed-uses in the centre.
- Retain and manage the industrial precinct to the north of the centre to serve the growing population.

FIGURE 111: MANLY STRATEGIC CENTRE

Source: Greater Sydney Commission, 2018

Manly offers a variety of cultural, tourism and entertainment activities near Manly Beach, one of the most popular beaches in Sydney. It is well served by public transport and includes a ferry and bus service from the Sydney CBD. The 2016 estimate of 5,000 jobs is projected to grow to between **6,000 - 6,500 by 2036**. This growth could potentially encourage a greater presence of visitors and tourists in the LGA and increase the desirability of living in this location with more local jobs opportunities.

Specific employment related actions for Manly, as designated by the GSC, include:

- Further develop Manly as a cultural, tourist, retail and entertainment precinct.
- Encourage diversified commercial activity to improve economic resilience.
- Encourage eco-tourism around North Head and the Cabbage Tree Aquatic Reserve.

In summary, NDP job targets for the various strategic centres are:

TABLE 150: GSC BASELINE AND HIGHER JOB TARGETS FOR STRATEGIC CENTRES

Strategic Centre	2016 Job Estimate	2036 Baseline Job Target (total jobs)	2036 Higher Job Target (total jobs)
Frenchs Forest	9,300	12,000	13,000
Brookvale – Dee Why	20,000	23,000	26,000
Manly	5,000	6,000	6,500
Mona Vale	4,300	5,000	6,000

Source: GSC

Other relevant planning priorities contained in the NDP include:

Planning Priority N11 - Retaining and managing industrial and urban services land: the North District has the smallest proportion of industrial and urban services lands in Greater Sydney. The NDP identifies urban services land and industrial lands as critical. These lands support the functioning of the area. The NDP aligns with the GSRP and classifies the lands to be retained and managed.

Planning Priority N13 – Supporting growth of targeted industry sectors: the NDP recognises the importance the tourism and rural industries. For instance, the tourism and visitor economy are identified in the Plan as being central to the productivity of the Northern Beaches LGA. Attractions in the area include several beaches and National Parks. Investments into the Walk and Cycleway to/from Manly to Palm Beach will also facilitate investment in this sector. The North District includes part of the Metropolitan Rural Area, where agricultural processing and export is an important component. This planning priority supports:

- Growth of internationally competitive industry sectors
- Response to changing technologies
- Planning for tourism and visitation activities
- Protection and support of rural industries.

A Metropolis that Works, GSC Thought Leadership Series

The paper responds to Objective 23 of the GSRP that industrial and urban services land be planned, retained and managed and acknowledges the changing nature of industrial and urban services and their spatial requirements and strategic value.

Great cities are acknowledged as also being working cities - more than just residential neighbourhoods where residents have improved travel times but where industrial or employment precincts play an important and equitable role in the day-to-day functioning of a city. Spaces are needed in the city where people can function, make and create.

It is recognised only eight per cent of land across Greater Sydney is zoned for non-residential uses such as industrial and urban services yet, 19 per cent of all jobs across Greater Sydney are classed as industrial.

The paper highlights the sector is evolving from its traditional manufacturing, service, repairs, transport and warehousing association to higher order industrial, technology, creative and logistic uses. It is stated that research indicates there is often a mismatch between businesses operating in the industrial and urban services lands and standard land use definitions.

The paper suggests strategic planners need to plan for a multi-layered city that provides creative interfaces; facilitates 'ordinary' functions; and has space that services future population needs. If change does occur, there is a need to retain ownership of the terms on which those changes are made, and determinations should require no net loss of land or businesses and seek additional allocations relative to population growth.

Land use conflict from mixed use zoning is recognised, as well as certain actions that allow uses such as cafes and restaurants to operate in these precincts. The introduction of such uses can impact the integrity of productive industrial and urban service land by introducing land use conflicts which, in turn, often add operating constraints to businesses.

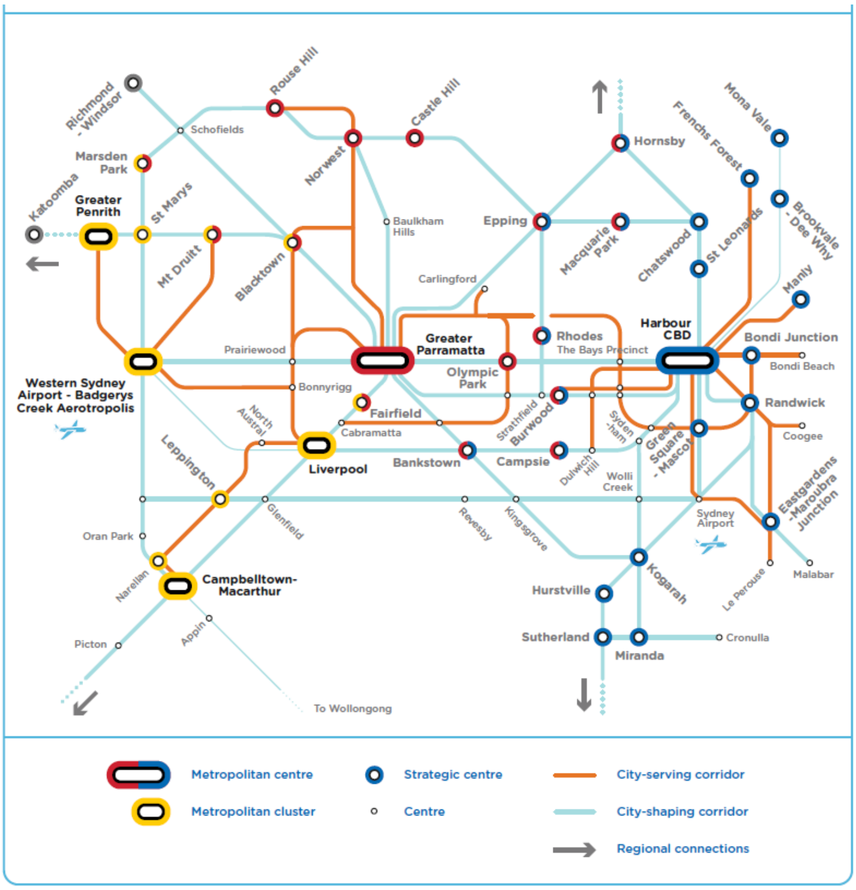
The paper highlights a nuanced approach is needed for the evolving uses of these spaces - how to support the emergence of organic creative enterprises and local networks and avoid the risks of 'creative led' gentrification. This approach is underpinned by a 'no regrets' approach to decision making regarding industrial and urban services land.

It is noted that these lands need better planning and management that is responsive to market and community needs. GSC research indicates the importance of local proximity of industrial lands and urban services land has increased the most for the North District where industrial land value is almost double with rents 50 per cent greater and job density three times the region's average.

Future Transport 2056

Future Transport 2056 is the NSW Government's long-term transport strategy. The *Greater Sydney Services and Infrastructure Plan* provides transport infrastructure priorities and aims to achieve the aspiration of a 30-minute city set out in the GSRP. New and upgraded transport connections are identified for this purpose.

FIGURE 112: CITY-SHAPING AND CITY-SERVING TRANSPORT NETWORKS FOR 2056, WITH SEVERAL NEW TRANSPORT CONNECTIONS THROUGH THE NORTHERN BEACHES LGA



Source: Transport for NSW 2018, Future Transport 2056 Greater Sydney Services and Infrastructure Plan

Implications for Employment & Economic Centres

The future transport infrastructure projects identified in the Northern Beaches LGA are:

Initiatives committed or for investigation (0-10 years):

- Northern Beaches B-line
- Northern Beaches Hospital Road Upgrade
- Improved bus services between Northern Beaches and Chatswood
- Beaches link.
- East-west public transport connection from Mona Vale to Macquarie Park.

Initiatives for investigation (20+ years):

- Further investment in cycling connections within 5km of strategic centres.

13.9 Local Studies

Economic Development – Strategic Foundations Debrief (2019)

Behavioural Architects were engaged by Council to:

- Understand the appetite for Northern Beaches residents to work in the Northern Beaches
- Understand the appetite for businesses to base themselves in the Northern Beaches
- Define the barriers and generating ideas to overcome them.

The study was conducted in three stages: hypotheses development via a workshop and review of past studies; primary research with three focus groups; and a strategic foundation debrief and workshop with Council to prioritise ideas.

Implications for Employment & Economic Centres

Five key insights were determined from conversations with residents and businesses:

- 1. Awareness: there is a lack of awareness by residents and businesses in the Northern Beaches as seeing it as a credible business place, with perceptions anchored to the beaches as a place to relax.
- 2. Perceptions: Subsequently, employees and businesses based in Northern Beaches are perceived to be less serious.
- 3. Anchored to benefits: Residents working outside of Northern Beaches post rationalise their decisions and see significant benefits to working outside the Northern Beaches which they don’t want to give up.
- 4. Framing of commute: The commute is famed as an opportunity for more me-time for all, however the possibilities within that time extend beyond admin and listening to podcasts for those who work in the Northern Beaches.
- 5. Habits: Habits are embedded for residents and businesses alike who are simply acting automatically when it comes to work. Life stage, such as having children, can act as an opportunity to change behaviour however outside of this there is little reason to change behaviour.

Three recommendations from the study included:

4. Encourage residents to work from home once a month by anchoring people to the benefits of working from home beyond current practical reasons.
5. Target current businesses and create a sense of community and network to enable business growth within Northern Beaches – framing as a customer retention strategy.
6. Raise awareness of the businesses and workforce based in Northern Beaches to change perceptions and attitudes. Targeting CFO’s and CEO’s with responsibility for planning office locations is key to changing behaviour.

Brookvale-Dee Why Transport Management and Accessibility Plan (2019)

The Brookvale-Dee Why Transport Management and Accessibility Plan is currently being completed.

The appropriate amount of growth in housing and jobs in Brookvale is dependent on the transport system. Council has engaged consultants to prepare a plan for the future operation and management of the road and transport network to ensure that growth in Brookvale does not exceed network capacity and that any necessary improvements are identified and prioritised.

The study will take stock of changes in development, population, travel patterns, roads and public transport and test scenarios for the future. It is Council’s view that options for growth in employment and housing must be carefully considered on balance with traffic and transport constraints and that any growth in the area be supported by an appropriate level of infrastructure provision.

Shape 2028 Northern Beaches Community Strategic Plan – Northern Beaches Council (2018)

The Northern Beaches Council Community Strategic Plan is a 10-year strategic plan which sets the whole of council strategic direction. The plan includes vision, goals and objectives that provide direction for the growth and development of the council.

Community consultation formed the basis of the plan, the vision was formed out of 2,000 people's responses. The overarching vision is ***"Northern Beaches – a safe, inclusive and connected community that lives in balance with our extraordinary coastal and bushland environment".***

From the vision, the plan also articulates community outcomes which include:

1. Protection of the Environment
2. Places for People
3. Vibrant Local economy
    a. Low unemployment rate
    b. Well educated and highly skilled work force.
    c. Lack of key local workers.
    d. Lack of education and training opportunities.
4. Good governance.

In addition to this, extensive consultation revealed the LGA was concerned with taking care of the environment, traffic congestion, car dependency and a lack of public transport.

Implications for Employment & Economic Centres

The community strategic plan identifies several strategies that have implications for employment, these are consistent with the directives and actions that are contained in the GSRP and the Northern District Plan. The relevant strategies are listed below:

- Council has embedded a strategy in its community strategic plan to ensure that employment lands are retained and cater for a diverse range of businesses and industry
- Facilitate innovative environments and hubs where start-up businesses, entrepreneurs and innovators are supported and connected
- The Council seeks to facilitate local education
- The Council also supports telecommuting
- Activate urban centres and strategic centres to increase economic activity
- Provide a platform for diversified job growth and locate job growth and industry clusters in villages, strategic and district centres
- The Council also commits to improving public transport options and improving parking options in centres, villages and place.
- One of the goals is to ensure the community is stimulated through a range of creative activities including safe nightlife opportunities.

Placescore Community Insights Report – Northern Beaches Town Centres and Villages Centres (2018)

In 2018, 3261 people across the LGA engaged in a 'Placescore' survey which asked which place attributes were most important to in their ideal town centre.

Placescore included two data collection tools:

- Care factor that captures what attributes a community value
- PX assessment that captures how the community rates each attribute.

Together these two data sets identify priorities for a community.

Implications for Employment & Economic Centres

Key findings for the Northern Beaches Town and Village Centres included:

- For local residents, workers and visitors - the aspects they ranked in order of importance for town centres (in rank order) included: elements of the natural environment (72%); cleanliness of public space (65%); outdoor restaurant, café and/or bar seating (58%); vegetation and natural elements (56%); and overall visual character of the area (54%).

- Main streets were performing at a score of 66 out of 100. The strongest place attributes were welcoming to all people, sense of safety and interaction with locals. The weakest place attributes included public art, light features; unusual or unique buildings/design; and amenities and facilities.

- Priorities across the LGA, in order of priority, included: things to do in the evening, vegetation and natural elements, maintenance of public spaces and street furniture; elements of the natural environment, general condition of vegetation, street trees and other planting, and cleanliness of public spaces.

Community ideas for change largely centres around transport and increasing car accessibility and parking, facilitating active modes of transport and improving roads and traffic. Activation of public spaces was important and including more places to play, gather and relax. For the business realm, it was identified that more and better commercial diversity and local shops are needed, including in relation to bars, restaurants and cafes.

In relation to particular centres, notable features that were identified as important included:

Mona Vale	Car accessibility and parking
Dee Why	Walking paths that connect to other places
Brookvale	Car accessibility and parking
Manly	Evidence of public events happening; and active transport and public transport options
Avalon	Interaction with locals and other people in the area; businesses that reflect the local community and values
Newport	Businesses that reflect the local community and values; grocery and fresh food businesses; interaction with locals and other people in the area
North Narrabeen	Walking paths that connect to other places; active transport and public transport options
Narrabeen	Walking paths that connect to other places; active and public transport options
Collaroy	Walking paths that connect to other places; local history, heritage buildings or features; active transport or public transport options
Freshwater	Interaction with locals and other people on the area; grocery and fresh food businesses
Balgowlah	Local history, heritage buildings or features; walking paths that connect to other places

Seaforth	Service businesses; groceries and fresh food businesses
Forestville	Car accessibility and parking; grocery and fresh food businesses.

Frenchs Forest Planned Precinct (2018)

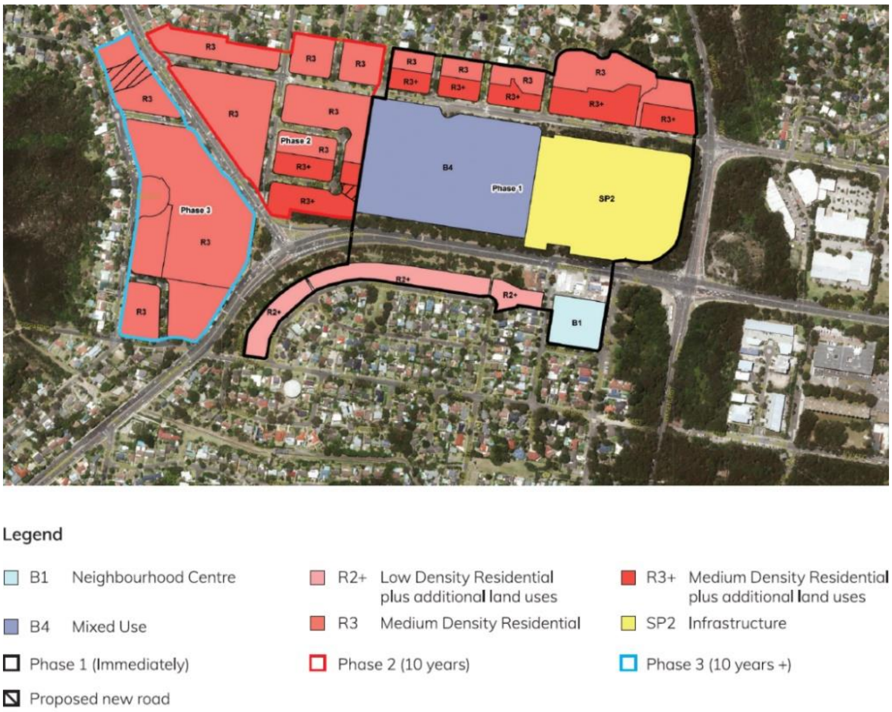
The report by MacroPlan 2018 provides advice on the likely retail and non-retail change that will occur in the Frenchs Forest Planned Precinct (FFPP) as a result of the Northern Beaches Hospital (NBH).

Overall, it was found that the FFPP had a demand for retail uses. Part 2 of the research conducted by MacroPlan considers alternate scenarios of development that are expected to follow from the NBH which is classified as a level five hospital. A Level 5 Hospital has a full-time director, experienced medical officers and staff on site 24 hours. The hospital also has undergraduate teaching and undertakes research[25].

The Hospital Precinct Structure Plan (HPSP) was adopted by Council in August 2017 and provides a 20-year vision for the development of Frenchs Forest as a Strategic Centre, with the development of a town centre and approximately 5,360 residential dwellings across three phases. The centrally located town centre, connected to the Northern Beaches Hospital, will be zoned B4 Mixed Use. There will potentially be 2,300 jobs.

Traffic modelling has indicated that in the short term, the precinct road network can support up to 3,000 dwellings concentrated around the town centre site with specific road and intersection upgrades. This is encompassed by Phase 1 of the HPSP, for which planning controls are currently being prepared. Phases 2 and 3 are dependent on delivery of major infrastructure works, including the Beaches Link Tunnel and an east-west bus rapid transit system from Dee Why to Chatswood, via Frenchs Forest.

FIGURE 113: PHASING STRATEGY – HOSPITAL PRECINCT STRUCTURE PLAN



Source: https://yoursay.northernbeaches.nsw.gov.au/5402/documents/60675

Implications for Employment & Economic Centres

[25] Australian Bureau of Statistics, 2010, viewed 15/04/19, <https://www.abs.gov.au/ausstats/abs@.nsf/Products/4390.0~2008-09~Glossary~Glossary>

- Retail uses in the area are expected to increase. The main trade area population is estimated to grow from 51,730 people (2017) to 70,430 by 2036. The key retail catchment is expected to experience a total of 13,400 people by 2036.
- An additional 5,300 - 5,400 dwellings in the Northern Beaches Structure Plan catchment is expected to drive growth in the primary sector.
- The worker population is expected to grow from 10,000 people (2018) to 14,000 people by 2036.
- The FFPP should provide additional retail floor space to serve the primary trade area needs.
- The NBH level 5 hospital will be supported by its related and necessary services within the hospital building.
- The level 5 hospital will encourage the growth of non-retail health floor space in the area.
- The 60-hectare Frenchs Forest Business Park performs a local employment role. Findings suggest that the Business Park is currently underutilised, therefore the development of the hospital will help to stimulate growth in this underused area.
- Approximately 2,300 new jobs as indicated in the HPSP.

Northern Beaches Hospital - Planned Precinct Part Three Report Precinct Employment Strategy (2018)

The study by MacroPlanDimasi (2018) assessed the need for **retail and non-ancillary retail floorspace** at the NBH Town Centre Area. The study outlines the appropriate scale and time of such facilities and the potential economic impact that would result from retail development at the subject site. The Town Centre is planned to be a Mixed-Use urban core. The proposed town centre will be located at the currently occupied Frenchs Forest High School.

It is expected that some demand particularly for small scale retail facilities will be provided at the hospital, but these facilities will be limited. This means that demand from hospital workers, patients and visits could be captured by the NBH town centre subject site. The strategic location of the centre at the nexus of three main roads, including Warringah Road, will create additional demand from passing motorists.

Implications for Employment & Economic Centres

The study found the subject site could support:

- 22,5000 sqm of retail floorspace
- 5,000 sqm for ancillary uses.

The study also identified an undersupply of supermarket floorspace in the main trade area, thus recommendations suggest that an **additional supermarket** would be feasible in the area. The precinct will help to retain retail expenditure within the area that is currently leaking from the main trade area. This could minimise possible car trips for workers and reinforce the locality as a strategic centre. A retail development within the NBH Structure Plan precinct will help to facilitate the GSRPs and NDPs directives to establish the Precinct as a strategic centre.

In relation to Manly and Mona Vale Hospitals, it is noted that Northern Beaches Hospital will supersede these facilities for arrangements with universities and clinical/training schools. The Northern Beaches Hospital will include about 870 sqm of internal floorspace dedicated to teaching, training and research (to also be used by medical professionals undertaking vocational training). It is noted that unless another teaching affiliation is formed beyond University of Sydney, it is unlikely any additional health-related teaching space will be required immediately to service Northern Beaches Hospital.

Draft Brookvale Structure Plan (2018)

The Draft Brookvale Structure Plan 2018 informs the future growth of Brookvale. The Plan aligns with the GSRP and the North District Plan (NDP) by identifying Brookvale as a strategic centre for employment and growth. Extensive community consultation and subsequent engagement outcomes shaped the Draft Brookvale Structure Plan. Community consultation helped to identify issues and the vision for the centre's future. The plan also identified aspirations, development principles, development scenarios and a growth assessment to guide the development of the strategic centre. The aspirations of the community were used to guide the vision for the future town centre.

The aspirations that were identified are:

1. Secure and strengthen economic performance of Brookvale Strategic Centre
2. Achieve a self-sustaining centre
3. Create an integrated activity cluster
4. Shift away from car dependency
5. Enhance Brookvale's identity
6. Bring life to the streets
7. Link the beach to the bush
8. Upskill Brookvale.

A key principle of the Draft Plan is to recognise the importance of Brookvale's employment lands to the Northern Beaches which includes protecting industrial zoned land, whilst also responding to future changes in industry and encouraging additional employment generating uses. Increased residential potential is only to be considered in locations that will not diminish employment opportunities, will support existing commercial functions, and will be accessible to the B-Line.

The focus of the Draft Plan is to promote the growth and revitalisation of Brookvale as an employment focussed Strategic Centre.

Implications for Employment & Economic Centres

The Draft Plan identified the need to facilitate further development of the mixed-use town centre along Pittwater Road as a support area to surrounding employment lands in Brookvale. The focus of Warringah Mall as a retail core coupled with employment growth and residential growth was identified as the most viable and productive way to ensure sustainable growth and economic development in the centre.

Residential development is only envisaged within the traditional town centre either side of Pittwater Road between Powells and Windbourne Roads to revitalise the town centre as a support area to the surrounding employment lands. The aim of the Draft Plan is to achieve appropriate balance between growth in jobs and housing, in line with identified traffic constraints.

Specifically, Scenario Three was identified as the most feasible balance of residential and jobs growth (40/60 split) to promote revitalisation of the town centre and its continued function supporting the surrounding industrial and urban services land. Its viability is centred on the fact that residential and commercial development will be co-located. The vision and aspirations of the plan broadly align with the vision of the GSRP and the NDP. While many of the actions relate to Council operations, the Plan works towards securing a mixed-use area as well as a vibrant night-time economy.

The Draft Plan was developed prior to the directives of the Greater Sydney Commission to 'retain and manage' industrial and urban services lands (Objective 23 Greater Sydney Region Plan). This Draft Plan has been placed on hold awaiting direction from this employment study.

Macro-Economic and Demographic Factors Shaping Job Growth (2016)

The study by SGS Economics and Planning (2018) provides an overview of macroeconomic and demographic factors shaping job growth. SGS Economics and Planning analysed key factors and industries which included globalisation, the rise of Asia, domestic economic and demographic factors, domestic policy and regulation, technological improvements, online retail trade, education, industrial and freight and logistics and proportion of footloose jobs. The study provides broad trends and information on the implications these factors have on industries and their role in shaping job growth.

Implications for Employment & Economic Centres

- The health sector is experiencing growth – the Northern Beaches Hospital at Frenchs Forest materialises this fact as the government continues to heavily invest in the health sector.
- Population is increasing across NSW. This trend can be seen in the Northern Beaches LGA.
- Footloose jobs are increasing as ICT and digital technologies improve.
- International student rates have increased dramatically in recent years.
- Like the GSRP and the NDP the study stresses the importance of retaining and managing industrial lands. The study acknowledged that there has been increasing pressure on employment lands from residential development as there is an intense demand for housing sites. This means that industrial and urban services lands in the Northern beaches should in fact be retained and viewed as important resources for the city.

Pittwater Marine Industry – Demographic and Economic Study (2016)

The study by Hill PDA (2016) analysed the economic impact and contribution of marine industries on the Pittwater waterway catchment. The purpose of the study was to educate the Council and the community on the marine industries role within the local economy. The study also provided commentary on the pressures that the marine industry will face in the future. The study found that the demographics of the area will lead to marine industry demand increases, this is due to both an ageing and affluent LGA.

Implications for Employment & Economic Centres

The study found that:

- Marine industry workers spent an estimated $2.4 million on surrounding services during the week.
- In 2011, 4,000 people worked within the tourism industry. Pittwater Council collected $255,000 within the 2014/15 financial year from dinghy storage.
- Boat ownership levels are projected to increase by 8,850 boats (+82 per cent) over a 26-year period to 2041.

Evidence suggests that the Pittwater Marine industry plays a role in the local economy and will continue to in the future. It is imperative that Council continues to support and facilitate the growth of the marine industry sector.

Strategic Centres – Enabling Economic Growth and Productivity (2015)

The study was commissioned by the Department of Planning and Environment to identify the key barriers to economic growth in metropolitan Sydney and their centres. Of relevance to the Northern Beaches Council are the centres which include the Northern Beaches Hospital Precinct and Brookvale-Dee Why centre. This study was used to guide the GSRP plans and therefore is aligned with the key objectives and directives of the plan.

Implications for Employment & Economic Centres

The study identified key elements that support economic development in centres which include:

1. Its accessibility
2. Its desirability
3. Its availability and viability.

The two identified employment centres must represent these three key elements to be economically sustainable in the future, this will facilitate and support continued growth.

Economic Impact Assessment Balgowlah Industrial Estate (2015)

The report assesses the economic impacts that are associated with the proposed rezoning of 5.8 hectares of IN2 Light Industrial Land at Balgowlah Industrial Estate to B6 Enterprise Corridor. The study found that rezoning the land to B6 enterprise corridor would be feasible and it would facilitate a diverse employment capacity and therefore increase employment.

FIGURE 114: BALGOWLAH INDUSTRIAL ESTATE

Source: Urbis, 2015

Implications for Employment & Economic Centres

An analysis of industrial lands suggest that the area is tightly held and has low vacancy rates. Evidence recommends that employment lands should be retained to ensure that there is enough capacity for future growth. The study found that it was imperative that Council retain the industrial and urban services land at Balgowlah. Rezoning the areas from IN2 to B6 Enterprise Corridor would increase the capacity for a variety of industrial uses. This would be achieved by ensuring that all existing IN2 uses would be retained under B6 zoning.

Warringah Council Business Survey: Summary Report (2015)

In 2015, Warringah Council undertook its first LGA-wide business survey to better understand the diversity and structure of businesses in the local area; what are the challenges; and how local council and other stakeholders can assist local businesses to grow and prosper.

A total of 410 local businesses completed the survey and included a broad spread of industries. Majority of respondents were micro-businesses or non-employing and home-based businesses. Nearly 40 per cent of the businesses surveyed were home-based businesses. There was a comparable split between respondents that owned their premises and those that rented. About two-thirds of businesses had more than half their revenue from outside of Warringah LGA area. Many businesses had been in operation for 21 years or more or 10 to 20 years.

The top 20 challenges as cited by businesses included:

- Traffic and congestion
- Distance
- Public transport
- Internet speed

- Availability and cost of property
- Parking
- Attracting and retaining staff
- No major challenge
- Competition from other centres
- Amenity and vibrancy
- Affordable housing for staff
- Council processes
- Major works
- Demographic change
- Loading zones and truck access
- Impact of residential development
- Conference and shared office space
- Business support and mentoring
- Crime and perceptions of safety
- Seasonal trade.

The most frequently cited challenges for the local business community were related to distance (for customers, clients, suppliers and staff); heavy traffic and congestion; limited public transport options and parking; poor internet connection. These challenges impact the businesses ability to expand and attract new customers and retain staff. Respondents also cited the provision of affordable housing to help business attract and retain staff as a key challenge.

For specific centres, it was noted that Brookvale and Frenchs Forest employment hubs had difficulty attracting and retaining staff, Dee Why town centre was noted as having a lack of vibrancy and facilities and poor amenity.

The lack of Council communication and understanding of business needs was also cited as a concern to local businesses.

Implications for Employment & Economic Centres

The survey identified five core work streams for Council:

- Information and collaboration – greater business advice and mentoring, networking and research of local economic trends
- Advocacy – particularly to State and Federal Government on infrastructure provision
- Urban design and local infrastructure improvements – public domain and parking provision
- Marketing and promotion – identifying key industries and locations to promote, business awards and events
- Council process improvements.

Warringah Employment Study (2013)

The employment study by SGS Economics and Planning analysed and reviewed economic trends and opportunities in the Warringah LGA. At the time of the study the Warringah Council was identified as one of the four councils which was within the Shore Regional Organisation of Council (SHROC). This organisation created a partnership between Manly, Mosman, Warringah and Pittwater Councils.

In 2013, Warringah was recorded to have the highest number of jobs in employment lands with around 45, 540 jobs which represented 60 per cent of all jobs in the subregion. The study also found that Warringah and the North East subregion had a high level of employment and self-containment.

Implications for Employment & Economic Centres

The study provided council with quantitative evidence to guide the future employment in Warringah. The study created several actions that had implication for employment. For instance, the study recommended that the Council should:

- Restrict subdivision and strata titling of industrial lots to prevent fragmentation
- Commit to sustaining the employment lands – retain and manage industrial lands
- Preserve IN1 General Industrial Zone in Cromer and Brookvale Industrial West.

Pittwater Economic Development Plan (2011)

The former Pittwater Economic Development Plan was made up of a series of discussion papers addressing topics relating to the area's economic challenges and opportunities for economic development and business growth.

These included:

1. Council economic role and function analysis
2. Towns and villages
3. The importance of business infrastructure and networks
4. The Pittwater Economy and Infrastructure
5. Strengthening the Local Economy
6. Pittwater in the Broader Economic and Geographical Context
7. Emerging Business Issues and Opportunities.

Implications for Employment & Economic Centres

Each discussion paper identified opportunity areas which have informed economic development actions within the subsequent Pittwater Operational Plans. Generally, it was found that Pittwater had natural environmental advantages which create a strong opportunity for education and tourism. The discussion papers recognised the need for greater tourism investment in Pittwater, for instance the visitation of tourist numbers particularly in village centres was low. The study found that the tourism sector in Pittwater is underdeveloped, this was attributed to a lack of Council promotion.

Warringah Economic Development Plan (2011)

The plan seeks to secure a growing economy in the region. The plan identifies four overarching themes which include:

1. Growing employment opportunities
   - Developing a strong local economy which promotes innovations, builds a skilled and educated workforce and contributes to a high quality of life for the community.
2. Council providing information, support and advice
   - Could provide support to increase business engagement and awareness of the contribution of business, build business capability and promote and strengthen the areas competitiveness.
3. Advocate for local and regional initiatives
   - Recognising the importance for local and regional economies associated with decision projects such as transport, jobs and infrastructure, which supports economic development.
4. Connectivity, engagement and communication
   - Installing and fostering business networks, partnerships and other mechanisms to connect, promote and grow business.

Implications for Employment & Economic Centres

- Capitalise on the natural assets and stimulate growth in the tourist economy.
- Support a range of local/regional business clusters.
- Focus on activating the strategic centre of Brookvale – Dee Why as a distinctive and attractive business location in the Northern Beaches.

Manly Industrial Zone – Masterplan (2011)

HASSELL was commissioned by the Council in 2011 to restructure the Manly Industrial Park. The new plan worked towards improving urban design. The plan sought to address issues that were associated with poor movement, land use structure, pedestrian amenity and the streetscape of the industrial park.

FIGURE 115: MANLY INDUSTRIAL ZONE MASTERPLAN

Source: Hassell, 2013

Implications for Employment & Economic Centres

- Permitting the B6 Enterprise and the IN2 Industry Zones in the park to encourage growth and diversity within the precinct.
- The masterplan provided a cohesive approach to the development of Manly Industrial Park. The focus was to retain the important industrial and urban services land.
- Improvements to the internal movement, linkages, built form and amenity of the industrial park worked towards facilitating growth and development in the industrial park.

SHOROC Employment Lands Addendum

A report by HillPDA analysed the employment lands of the SHROC region and provides detailed analysis on future forecasts for growing job sectors. The study also provides numerical data on the amount of retail, commercial and industrial floor space that will be required in the area by 2031.

Implications for Employment & Economic Centres

- Forecasted an **additional 22,170 jobs** within the SHOROC region between 2011 – 2031.
- Industries representing the highest growth include health care and social assistance with 5761 jobs and Professional, Scientific and Technical Services jobs with 5,442 additional jobs.

- Of relevance to the Northern Beaches council is the **Manly LGA** which is expected to have an additional **2,316 jobs by 2031**. The study found that most of this growth will occur in Health Care and Social Assistance and Education and Training.
- The **Pittwater** LGA is expected to have an additional **5,076 jobs by 2032**. Most of this job growth will occur in the Health Care and Social Assistance and Professional, Scientific and Technical services.
- **Warringah** is estimated to experience a job increase of **12,816 jobs** which represents a 22 per cent increase. Interestingly growth will be concentrated around Professional Scientific and Technical services job and retail trade jobs. Health Care and Social Assistance in this instance has the third highest growth with an additional 2750 jobs.

SHOROCC Visitor Economy Opportunities Paper

The paper provides guidance on the potential for expanding the visitor economy of the Northern beaches. The study provides an analysis of the barriers to achieving economic growth in the Manly LGA. Of note is the missed opportunities that have been identified in the tourism industry.

Implications for Employment & Economic Centres

This high-level study found that:

- The Northern Beaches offers an **attractive holiday destination** with several beaches, walking trails and cycling trails. The area also offers a range of recreational uses.
- There is a clear focus to strengthen the use of the National Parks and Harbour Foreshore areas for outdoor base infrastructure and recreational experiences.
- The study found that accessibility to the Northern Beaches is compromised by a congested road network.
- Manly is identified as a traditional tourism hub, however, the centre is compromised by accessibility issues.
- The region was also found to lack commercial short-term accommodation facilitates. Anecdotal evidence suggest that such development would be opposed as the nimby concern is prevalent within the LGA.
- Opportunity to ease traffic congestion by investigating travel by water. It is suggested that the area could capitalise on the existing marine infrastructure in the area.
- The study also found that current trails and areas could capitalise and promote the heritage walking trails.
- There is a lack of car parking facilities – it should be a priority to expand carpark facilities in the area.
- The study revealed that there is tension within the LGA about tourism growth. This should be investigated in the future.
- Night-time activity should be investigated, activation at night could be facilitate by smaller scale family night-time events.

Manly 2015 Masterplan Economic Assessment (2013)

The Hill PDA Discussion Paper investigated the Manly Precinct Plan (2015) and worked towards quantifying the economic benefits of the proposed masterplan. The economic assessment recognises the need for revitalisation within the Manly Town Centre and found that this could stimulate the local economy. The plan proposed a variety of key elements which worked towards increasing public amenity, calming traffic, increasing the opportunity for active transport, revitalising Manly laneways (which were identified as being unsafe at night) and increasing carparking capacity.

FIGURE 116: MANLY MASTERPLAN

Source: Hill PDA Architects, 2013

Implications for Employment & Economic Centres

The study quantified and highlighted the economic benefits that the 2015 Masterplan would bring to the Council. The study found that issues such as accessibility, safety and traffic congestion could be remedied by investing in urban design improvements and supporting infrastructure development such as car parking to increase accessibility. The study helped to facilitate future growth and development within the Manly area. Key findings indicate the economic impact that the Masterplan would have on the town centre. It was found that the Manly Oval underground car park and the Whistler street carpark and developments within close proximity would contribute positively to the local economy in Manly where:

- Incorporating parking into the Manly oval would attract $15 million of retail expenditure.
- The redevelopment of Whistler Street Car Park would:
  - Create 50 new residential dwellings for locals leading to an additional $1.6million in retail expenditure per annum.
  - Close to $15million of construction works leading to the direct generation of 42 jobs per year.

13.10 Statutory Planning Context

Six main planning instruments apply to the Northern Beaches LGA. Statutory requirements are largely set out in the Manly Local Environmental Plan (2013), Pittwater LEP (2014), and the Warringah LEP (2011). The statutory planning context aligns with the strategic planning framework for the Northern Beaches.

Manly Local Environmental Plan (2013)

The LEP establishes statutory requirements for development. Land use controls identify what types of development are permissible. The aim of the plan seeks to foster economic, environmental and social welfare so that Manly continues to develop as an accessible, sustainable, prosperous and safe place to live, work or visit. The aims of the plans identify the importance of providing diverse affordable housing, high-quality built form outcomes.

Tourism is also specifically recognised, and it addresses issues such as minimising car dependency.

Implications for Employment & Economic Centres

The LEP supports the growth and development of tourism and broadly aims to increase economic activity particularly in the Manly centre.

Manly Development Control Plan

The Manly Development Control Plan identifies a range of special character areas and sites which include specific design requirements. The plan identifies the importance of quality design and activation. Central to the plan is also the identification of local character which is set to be retained.

Implications for Employment & Economic Centres

- The plan identifies the need to facilitate growth particularly in B6 Corridors.
- Creates controls and parameters to ensure that development is economically sustainable.
- The plan identifies Manly as the predominant town centre in the area.
- Other lower scale neighbourhood centres include Balgowlah, Fairlight and Seaforth. These areas are identified by a unique townscape character that is to be retained in the future. These centres provide personal services and rely on convenience retailing.

Pittwater Local Environmental Plan (2014)

The Pittwater LEP includes the following objectives:

- To promote development in Pittwater that is economically, environmentally and socially sustainable
- To ensure development is consistent with the desired character of Pittwater's localities
- To support a range of mixed-use centres that adequately provide for the needs of the Pittwater community
- To retain and enhance land used for employment purposes that is needed to meet the economic and employment needs of the community both now and in the future
- To improve access throughout Pittwater, facilitate the use of public transport and encourage walking and cycling
- To encourage a range of housing in appropriate locations that provides for the needs of the community both now and in the future
- To protect and enhance Pittwater's natural environment and recreation areas,
- To conserve Pittwater's European and Aboriginal heritage
- To minimise risks to the community in areas subject to environmental hazards including climate change
- To protect and promote the health and well-being of current and future residents of Pittwater.

Implications for Employment & Economic Centres

- The Pittwater development control plan identifies and supports a range of mixed-use centres.
- The plan also identifies the need to retain and enhance land use for employment purposes.
- The plan supports and promotes sustainable economic development.

Pittwater Development Control Plan

The Pittwater Development Control Plan (2013) provides planning and design requirements to retain the character of areas and to guide new development in areas. The plan aligns with the Pittwater Local Environmental Plan (2014) and identifies several centres which are identified for being important places within the LGA where people live work, and play,

Implications for Employment & Economic Centres

The Pittwater Development Control Plan (2013) identifies 16 localities. Broadly, the localities are made up by small neighbourhood village type centres. Despite this, the plan identifies the Mona Vale centre as the main commercial centre for the Pittwater area. This aligns with the GSRP which identifies Mona Vale as a strategic centre. The DCP supports the economic growth in Pittwater. For instance, the heights in the local centre were increased to facilitate the development of the local economy.

The DCP encourages a mix of employment. Villages/localities such as Bilgola and Newport are recognised for their low-density village feel and community focus which is set to be retained. Mixed land uses are encouraged in these village centres which supports the co-location of services, employment and housing in local settings.

Warringah Local Environmental Plan (2011)

The Warringah LEP includes the following objectives:

- To create a land use framework for controlling development in Warringah that allows detailed provisions to be made in any development control plan made by the Council
- To recognise the role of Dee Why and Brookvale as the major centres and employment areas for the sub-region
- To maintain and enhance the existing amenity and quality of life of the local community by providing for a balance of development that caters for the housing, employment, entertainment, cultural, welfare and recreational needs of residents and visitors
- Protect and enhance the residential use and amenity of existing residential environments
- Promote development that is compatible with neighbouring development in terms of bulk, scale and appearance
- Increase the availability and variety of dwellings to enable population growth without having adverse effects on the character and amenity of Warringah.

In relation to non-residential development to:

- Ensure that non-residential development does not have an adverse effect on the amenity of residential properties and public places
- Maintain a diversity of employment, services, cultural and recreational facilities.

In relation to environmental quality to:

- Achieve development outcomes of quality urban design
- Encourage development that demonstrates efficient and sustainable use of energy and resources
- Achieve land use relationships that promote the efficient use of infrastructure
- ensure that development does not have an adverse effect on streetscapes and vistas, public places, areas visible from navigable waters or the natural environment
- Protect, conserve and manage biodiversity and the natural environment
- Manage environmental constraints to development including acid sulphate soils, land slip risk, flood and tidal inundation, coastal erosion and biodiversity.

In relation to environmental heritage:

- To recognise, protect and conserve items and areas of natural, indigenous and built heritage that contribute to the environmental and cultural heritage of Warringah.

In relation to community well-being to:

- Ensure good management of public assets and promote opportunities for social cultural and community activities
- Ensure that the social and economic effects of development are appropriate.

Implications for Employment & Economic Centres

- Identifies the need to support the diversification of employment.
- Similarly, to the GSRP and the NDP, WLEP (2011) identifies the role of **Dee Why and Brookvale** as major centres and employment areas for the region.

Warringah Development Control Plan (2011)

The Warringah Development Control Plan 2011 defines the desired future character of the LGA and provides specific controls for key centres such as the Dee Why Centre, Warringah Mall and the Freshwater village.

Implications for Employment & Economic Centres

- The plan identifies **Dee Why** as a mixed-use area. The plan recognises the importance of Dee Why as a main centre for the LGA which broadly aligns with the objectives and directives of the GSRP and the NDP.
- **Warringah Mall** is also identified specifically in the Development Control Plan. The objectives are mainly focusing on ensuring that the development does not detract from the amenity of the area. This is achieved through design quality and excellence-built form outcomes.
- **Freshwater** is identified as a local centre which has a focus on community life where people can easily go about their daily activities. This smaller type centre provides retail and community facilities.

13.11 Key Findings

Northern Beaches Health and Education Precinct

Significant investment into the Northern Beaches Hospital Precinct will secure its role as a strategic centre. Policy directions recognise the need to plan for and grow this precinct strategically to ensure that the LGA can expand these industries through innovations. The hospital and investments are expected to stimulate the economy and provide a greater number of jobs in the area.

Employment growth

Growing local job opportunities and ensuring efficient access to these jobs is also a key focal point. The strategic centres are the main locations for job growth in the LGA and include the Northern Beaches Health and Education Precinct, Brookvale – Dee Why, Manly and Mona Vale.

Supporting growth that is well designed and sensitive to the natural and built environment

Smaller localities are identified as having strong local character which should be retained. Any increases in density and expansion need to ensure high-quality built environment results, therefore improving amenity and increasing safety and vibrancy. For local residents, workers and visitors, elements of the natural environment and maintenance of public spaces are highly valued.

Supporting local interaction, accessibility via all modes and access to fresh food in smaller, local centres

The community identified that interaction with local and other people in the area; access to groceries and fresh food businesses; walking paths that connect to other places; as well as car accessibility and parking and public/active transport access are all important and valued to the community.

Strategic focus on job accessibility

Land use planning policy broadly supports urban redevelopment of increased densities to create a 30-minute city.

Investigate tourism growth

The Northern Beaches LGA contains a variety of beautiful natural assets. Policy recognises the need to investigate the tourism industry as it presents as a key opportunity for economic growth.

Policy focus on the protection of industrial lands

Regional policy identifies the importance of industrial lands, because of this, industrial precincts around the LGA will be retained and managed. A key focus is ensuring that the uses of these areas are diversified to encourage a greater capacity of employment and facilitate a range of employment opportunities.

Investigate the tension between car parking and public transport in areas that are centred around public transport nodes

Various measures have been suggested for carparking in Manly Town Centre, as well as separate discussion to increase density around public transport nodes. Further policy should work towards facilitating and encouraging public transport usage, particularly in areas that are well serviced by ferry and rapid bus services. This will also help to manage and ameliorate traffic congestion issues that are experienced throughout the LGA as employment centres grow.

Facilitate innovative environments and hubs where start-up businesses, entrepreneurs and innovators are supported and connected

The rise of footloose jobs and digital technologies has been recognised, alongside the need to support local job growth and develop a strong local economy that promotes innovation and fosters business networks.

Distance

The issue of distance to suppliers, clients, staff and customers was a key concern for local businesses in the area. This has been compounded by traffic congestion and a lack of public transport options and parking in centres.

Support development of the night-time economy

Feedback from the community indicates having a range of night-time activities in a safe environment is a priority for the community and also a goal of Council. Ensuring the economic activity centres, in relation to urban design, business offerings and programs and activities in the LGA to support this will be key.

Awareness, perception and habits impact business development in the Northern Beaches

Residents and businesses are not aware of the business, workforce and professional environment of the Northern Beaches. The area is largely perceived as a place to relax and spend downtime and local residents and businesses tend to act automatically when it comes to work (ie: place of work is considered outside of the Northern Beaches). It has been identified there is a need to create a better sense of network within the business community, change perceptions and attitudes and encourage residents to work from home.

APPENDIX 2 – SOCIO ECONOMIC PROFILE

This chapter provides an overview of relevant socio-economic census data and identifies key insights that will inform the development of the employment and centres strategy. Data has been drawn from the Northern Beaches Demographic Analysis Study also completed by SGS Economics & Planning, alongside some additional employment analysis[26].

13.12 Population

The population section profiles the residents of the Northern Beaches LGA across a number of social and economic indicators.

Population

Population is an important consideration in the development of an economic strategy, as population growth is closely tied to the need for future population serving jobs such as retail, health and education.

Northern Beaches LGA has had:

- Growth of 15,235 people between the years 2011-2016 with most growth occurring in the Brookvale-Dee Why catchment (+7,090). This was nearly twice as high as the Mona Vale (+3,272) and Manly (+3,122) catchments.
- The five-year growth rate between the 2006 and 2016 was 5.99 per cent for the LGA which was lower than Greater Sydney (8.47 per cent) and slightly higher than the North District (5.35 per cent).
- Population density per square kilometre has increased across the LGA by 6.09 per cent between 2011-2016. Population density growth was highest in the Brookvale-Dee Why catchment at 8.21 per cent, followed by Manly at 5.63 per cent and then Frenchs Forest and Mona Vale at 4.69 and 4.63 per cent respectively.
- Comparative population density suggests the Northern Beaches is similar to Greater Sydney at 2,675 and 2,623 persons per square kilometre respectively in 2016.

TABLE 151: BROADER CATCHMENTS POPULATION TOTALS AND GROWTH RATES (2011-2016)

Geography	2011	2016	Growth	CAGR (5-yr %)
Mona Vale	57,170	60,442	3,272	5.72%
Terrey Hills	3,531	3,653	122	3.46%
Frenchs Forest	36,387	37,998	1,611	4.43%
Brookvale-Dee Why	84,987	92,077	7,090	8.34%
Manly	55,620	58,742	3,122	5.61%
Total	*237,641*	*252,876*	*15,235*	*6.40%*

Source: ABS Census 2011 and 2016 (TableBuilder Pro)

[26] Appendix 2 includes explanation notes about data analysis.

TABLE 152: COMPARATIVE POPULATION TOTALS AND GROWTH RATES (2006-2016)

Geography	2006	2011	2016	Growth	CAGR (5-yr %)
Greater Sydney	3,821,233	4,079,432	4,496,184	674,951	8.47%
North District	766,240	808,651	850,382	84,142	5.35%
Northern Beaches	225,109	237,641	252,876	27,767	5.99%

Source: ABS Census 2006, 2011 and 2016 (TableBuilder Pro)

TABLE 153: BROADER CATCHMENTS POPULATION DENSITY (PER KM²) TOTALS AND GROWTH RATES (2011-2016)

Geography	2011	2016	Growth (%)
Mona Vale	1,942	2,032	4.63%
Terrey Hills	350	362	3.46%
Frenchs Forest	1,788	1,872	4.69%
Brookvale-Dee Why	3,962	4,287	8.21%
Manly	4,302	4,544	5.63%
Total	*2,521*	*2,675*	*6.09%*

Source: ABS Census 2011 and 2016 (TableBuilder Pro), DPE - Standard Instrument Local Environmental Plan (LEP) - Land Use Zoning (LZN), 2018

The Northern Beaches LGA is forecast to have lower growth rates than the Greater Sydney region and the North District. Transport for NSW and the Department of Planning & Environment expect an increase of 26,015 people between 2021 and 2036 for the LGA which represents an additional 3.16 per cent each five years. Greater Sydney and the North District is forecasted at 7.94 and 4.91 per cent respectively.

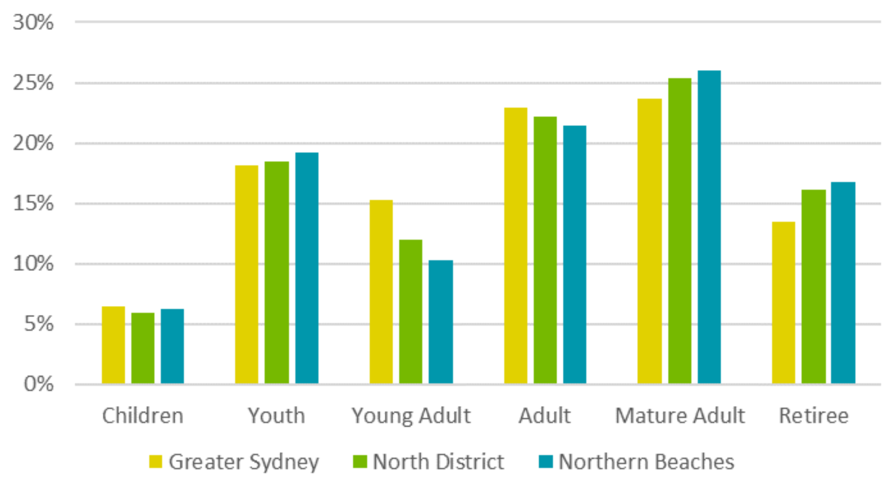
Age Profile & Migration

Age profile reports the breakdown of the age of the population by range. While not an economic indicator, age profile is an important consideration in the development of an economic strategy as population growth is closely tied to the need for future population serving, health and social infrastructure related services.

Northern Beaches LGA:

- Has an increasingly ageing population, where retirees (+65 years) have a compound annual growth rate at 12.31 per cent between 2006 and 2016 that is higher than growth rates for youth (5-20 years) and mature adults (45-65 years) at 9.39 per cent and 8.53 per cent respectively.
- Slightly more retirees are located in the Mona Vale, Terrey Hills and Frenchs Forest catchment areas, whereas Brookvale-Dee Why and Manly catchments tend to have higher proportions of mature adults, adults and youth.
- Has a larger proportion of retirees, mature adults and youth compared to Greater Sydney and the North District and a smaller proportion of young adults (20-30 years) and adults (30-45 years).
- Into the future, forecasts predict a continued increase in the number of retirees, mature adults and young adults, while youth will stagnate.

FIGURE 117: COMPARATIVE AGE PROFILE STRUCTURE (2016)



Source: ABS Census 2016 (TableBuilder Pro)

Majority of people moving to the Northern Beaches are coming from other parts of Australia – mostly Sydney. There are, however, larger numbers of overseas migrants locating in Manly and Brookvale-Dee Why. Overseas migrants tend to have a higher proportion of Adults and Young Adults. If these trends persevere, the workforce in Northern Beaches will be largely derived from overseas migrants.

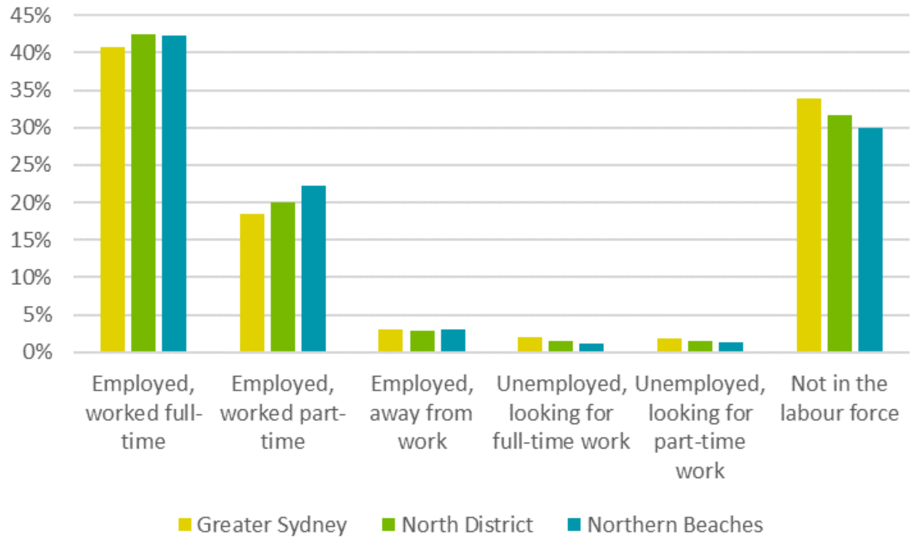
Labour Force Status (PUR – resident workers)

The labour force status (Place of Usual Residence) indicator reports the employment profile of Northern Beaches resident population.

Northern Beaches LGA has:

- A similar proportion of people employed in full-time jobs as Greater Sydney and the North District, at approximately 42 per cent of the labour force.
- More people are employed part-time at approximately 23 per cent and less people that are not in the labour force at 30 per cent when compared to Greater Sydney and the North District.
- Between 2006 and 2016 there has been an increase in persons employed part-time and decreases in those persons employed full-time and not in the labour force.

FIGURE 118: COMPARATIVE LABOUR FORCE STRUCTURE (2016)



Source: ABS Census 2016 (TableBuilder Pro)

FIGURE 119: COMPARATIVE PROPORTIONAL CHANGE IN LABOUR FORCE STRUCTURE (2006-2016)

Source: ABS Census 2006, 2011 and 2016 (TableBuilder Pro)

Industry of Employment (PUR – resident workers)

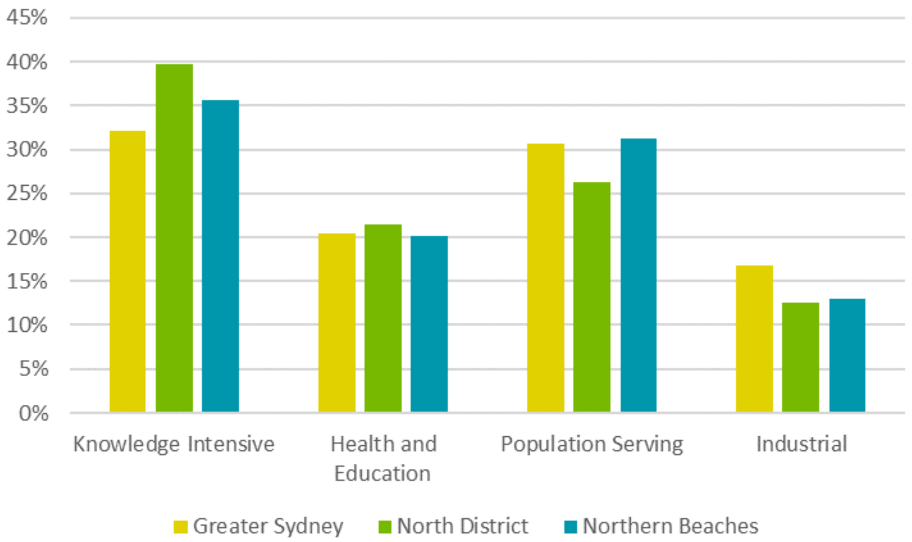
The industry of employment (Place of Usual Residence) indicator reports the industries that residents work in. Industries have been aggregated to four Broad Industry Categories (BICs), as defined by the Greater Sydney Commission. The BICs are an aggregation of the various 1-digit ANZSIC categories that define industries within the economy.

Northern Beaches LGA:

- Most residents work in knowledge intensive industries and population servicing industries at approximately 32 and 31 per cent. Industrial jobs are lower than Greater Sydney.
- Between 2006 and 2016, the proportion of knowledge intensive and health and education jobs held by local residents has increased in the LGA, whereas population serving jobs only experienced a small increase and industrial jobs undertaken by residents decreased.

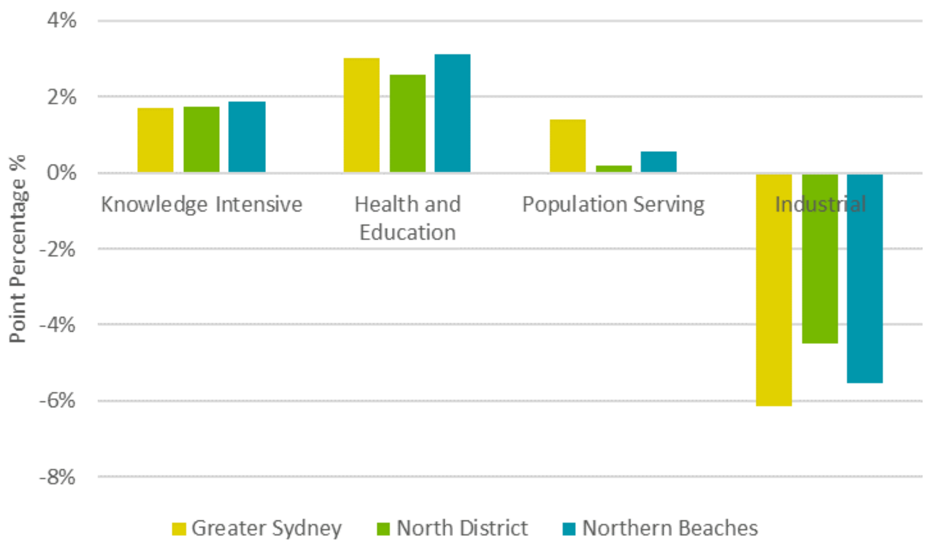
- Residents in the Manly catchment have a higher share of knowledge related jobs and less population serving jobs when compared to the rest of the LGA; residents working in health and education jobs are generally equally distributed across the LGA.

FIGURE 120: COMPARATIVE INDUSTRY OF EMPLOYMENT (PUR) STRUCTURE (2016)



Source: ABS Census 2016 (TableBuilder Pro)

FIGURE 121: COMPARATIVE PROPORTIONAL CHANGE IN INDUSTRY OF EMPLOYMENT (PUR) STRUCTURE (2006-2016)



Source: ABS Census 2006, 2011 and 2016 (TableBuilder Pro)

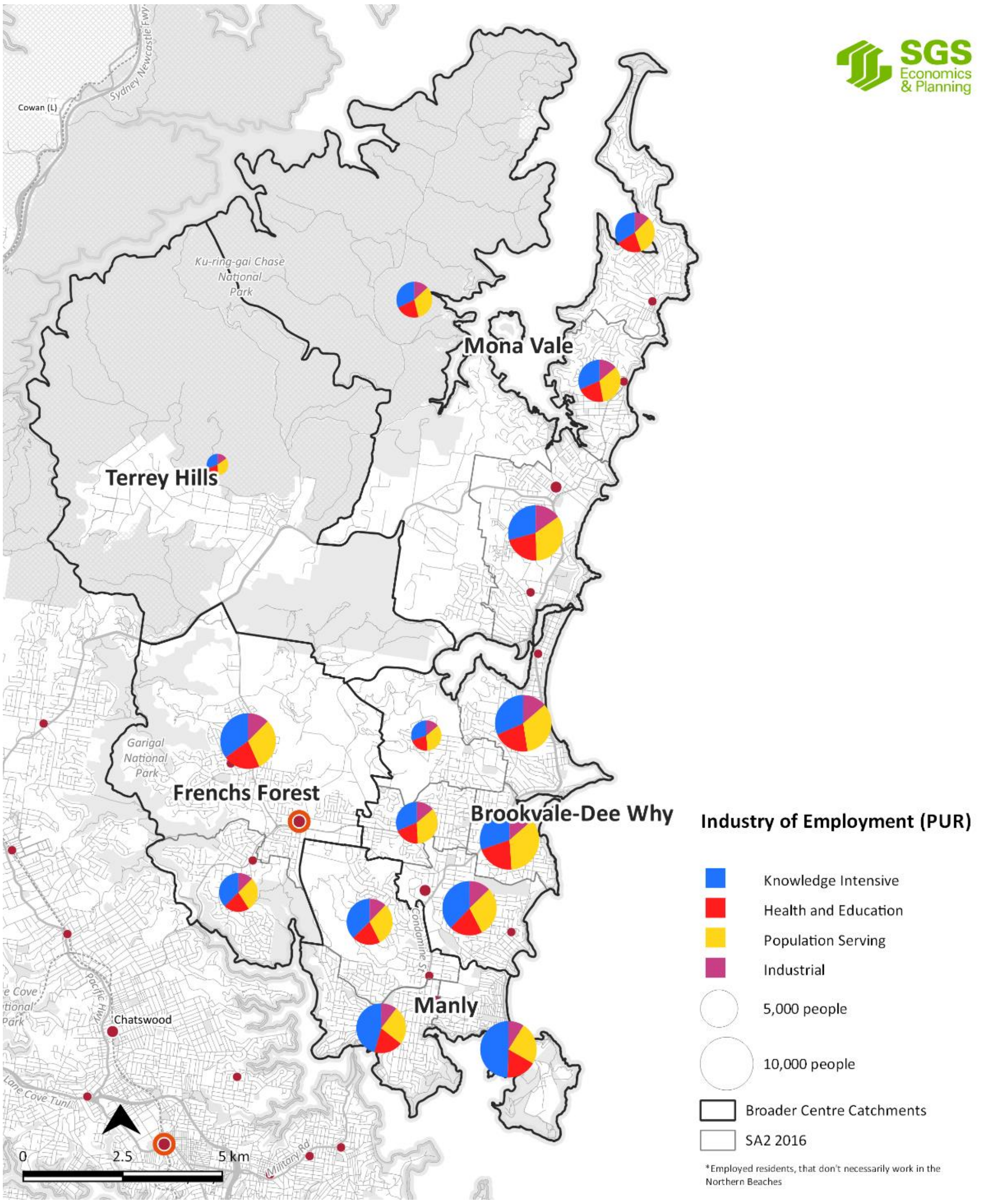
TABLE 154: BROADER CATCHMENTS INDUSTRY OF EMPLOYMENT (PUR) PROPORTIONS (2016)

Geography	Knowledge Intensive	Health and Education	Population Serving	Industrial
Mona Vale	31%	21%	34%	14%
Terrey Hills	31%	19%	34%	15%
Frenchs Forest	36%	22%	30%	12%

Brookvale-Dee Why	33%	20%	34%	13%
Manly	45%	19%	26%	10%
Total	*36%*	*20%*	*31%*	*13%*

Source: ABS Census 2016 (TableBuilder Pro)

FIGURE 122: BROADER CATCHMENTS INDUSTRY OF EMPLOYMENT (PUR) – MAP (2016)



Source: ABS Census 2016 (TableBuilder Pro)

The most common occupations amongst Northern Beaches residents are in the *Professionals,* and *Managers* categories. High ratios of these residents are located in the suburbs of *Manly-Fairlight, Balgowlah-Clontarf-Seaforth,* with higher rates elsewhere in the LGA as well (e.g. *Frenchs Forest* broader catchment, *Brookvale-Freshwater*)

Areas such as *Beacon Hill-Narraweena* and *Dee Why-North Curl* have higher ratios of industrial workers (*Technicians and Trades Workers, Labourers* and *Machinery Operators and Drivers)* while suburbs with major retail outlets have larger numbers of *Sales Workers* (*Warriewood-Mona Vale* and *Freshwater-Brookvale).*

TABLE 155: BROADER CATCHMENTS OCCUPATION (PUR) TOTALS (2016)

Year	Managers	Professionals	Technicians and Trades Workers	Community and Personal Service Workers	Clerical and Administrative Workers	Sales Workers	Machinery Operators and Drivers	Labourers
Mona Vale	5,628	8,046	3,852	2,869	4,167	2,839	786	1,465
Terrey Hills	354	436	262	155	267	149	47	108
Frenchs Forest	3,513	5,357	1,752	1,553	2,624	1,719	453	815
Brookvale-Dee Why	8,018	12,504	6,437	5,066	6,751	4,533	1,752	3,144
Manly	6,557	10,747	2,404	2,588	3,677	2,558	522	1,093
Total	*24,080*	*37,085*	*14,707*	*12,241*	*17,482*	*11,801*	*3,557*	*6,621*

Source: ABS Census 2016 (TableBuilder Pro)

TABLE 156: BROADER CATCHMENTS OCCUPATION (PUR) TOTALS (2016)

Year	Managers	Professionals	Technicians and Trades Workers	Community and Personal Service Workers	Clerical and Administrative Workers	Sales Workers	Machinery Operators and Drivers	Labourers
Mona Vale	19%	27%	13%	10%	14%	10%	3%	5%
Terrey Hills	20%	25%	15%	9%	15%	8%	3%	6%
Frenchs Forest	20%	30%	10%	9%	15%	10%	3%	5%
Brookvale-Dee Why	17%	26%	13%	11%	14%	9%	4%	7%
Manly	22%	36%	8%	9%	12%	8%	2%	4%
Total	*19%*	*29%*	*12%*	*10%*	*14%*	*9%*	*3%*	*5%*

Source: ABS Census 2016 (TableBuilder Pro)

Between 2006 and 2016, the largest increase has occurred in the *Professionals, Managers* and *Community and Personal Service Workers* occupations. All other occupations have either remained relatively stagnant or experienced a decline, in particular the *Clerical and Administrative Workers* group.

TABLE 157: LOCAL OCCUPATION (PUR) TOTALS AND GROWTH RATES (2006-2016)

Year	Managers	Professionals	Technicians and Trades Workers	Community and Personal Service Workers	Clerical and Administrative Workers	Sales Workers	Machinery Operators and Drivers	Labourers
2016	24,080	37,085	14,707	12,241	17,482	11,801	3,557	6,621
2011	21,075	34,207	14,461	10,702	18,191	11,352	3,516	6,148
2006	19,403	30,720	14,235	9,470	18,137	11,391	3,629	6,589
Growth (Total)	*4,677*	*6,365*	*472*	*2,771*	*-655*	*410*	*-72*	*32*
CAGR (5-yr %)	*11.40%*	*9.87%*	*1.64%*	*13.69%*	*-1.82%*	*1.78%*	*-1.00%*	*0.24%*

Source: ABS Census 2006, 2011 and 2016 (TableBuilder Pro)

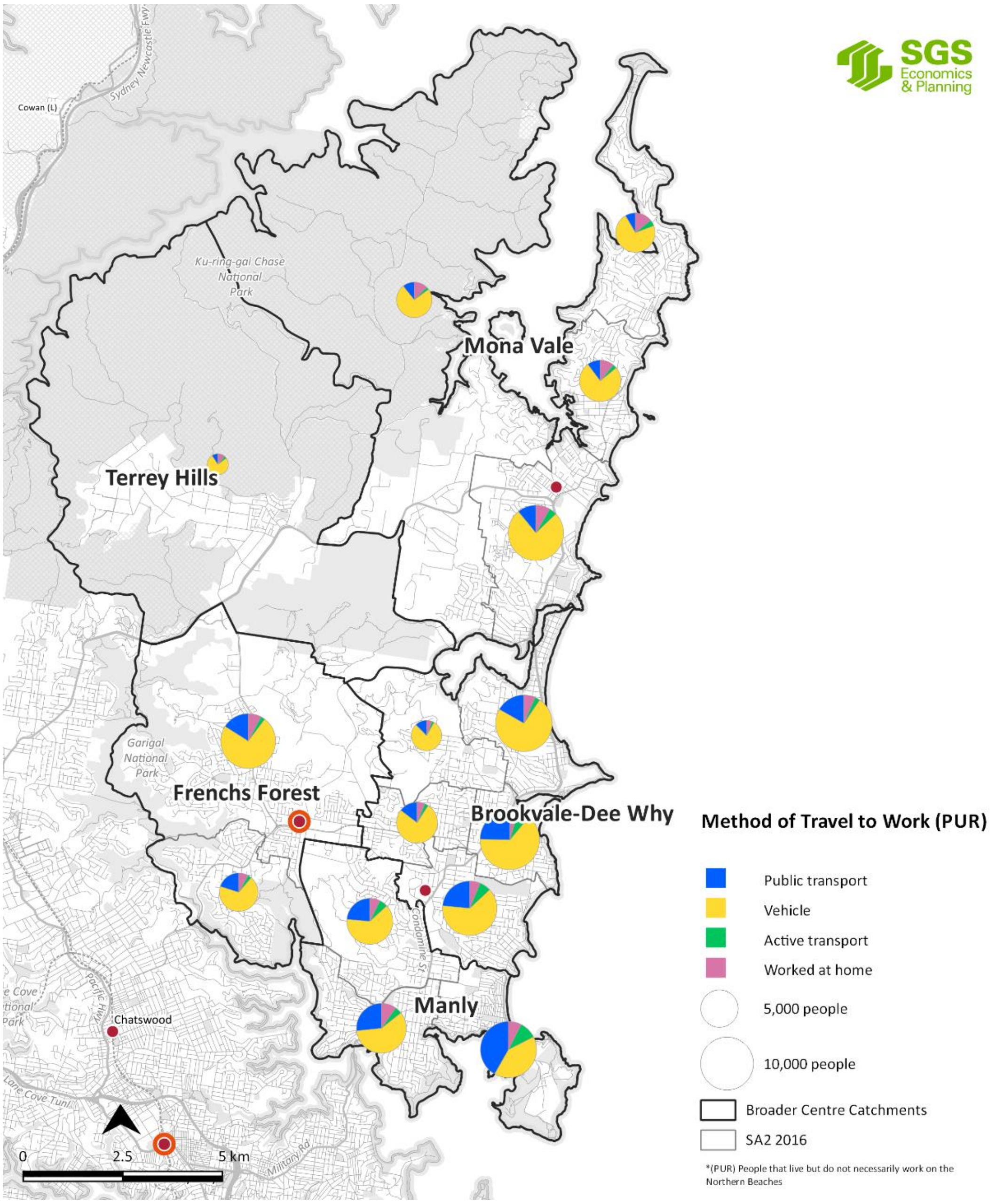
Method of Travel to Work (PUR – resident workers)

The method of travel to work (Place of Usual Residence) indicator reports how residents access their jobs.

For Northern Beaches LGA:

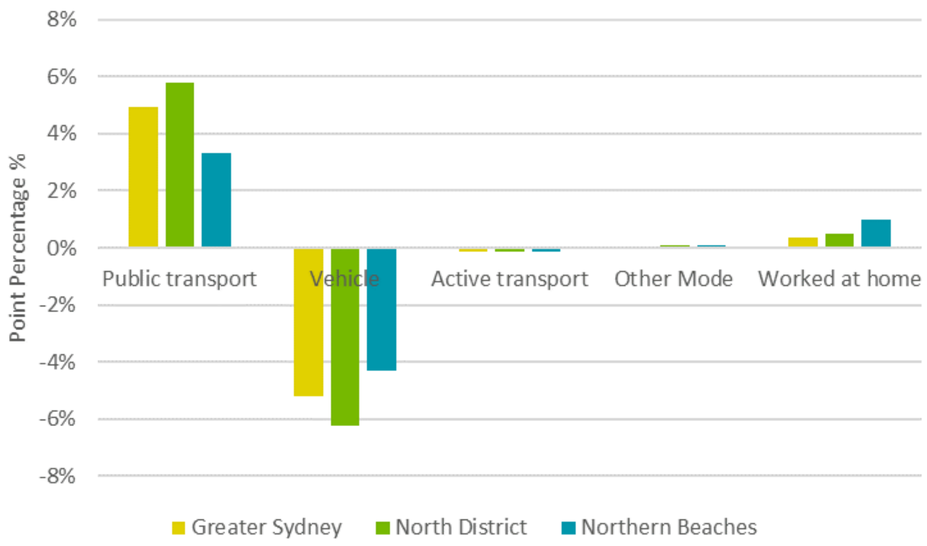
- Majority of residents use vehicles to travel to work at approximately 77 per cent, whereas only 20 per cent of residents use public transport to access work.
- Figure 123 highlights how different catchments in the LGA travel to work. Around Manly there is greater public transport use. Vehicle use increases moving further north of the LGA.
- Public transport use to access work has increased by approximately three per cent between 2006-2016 and vehicle use has decreased by approximately four per cent.
- Working from home has increased slightly during the period 2006-2016 at about one per cent.

FIGURE 123: BROADER CATCHMENTS METHOD OF TRAVEL TO WORK (PUR) – MAP (2016)



Source: ABS Census 2016 (TableBuilder Pro)

FIGURE 124: COMPARATIVE PROPORTIONAL CHANGE IN METHOD OF TRAVEL TO WORK (PUR) STRUCTURE (2006-2016)



Source: ABS Census 2006, 2011 and 2016 (TableBuilder Pro)

13.13 Employment

The employment section profiles the jobs that locate in Northern Beaches LGA.

Employment (POW)

Between the 2011 and 2016 Census periods, Place of Work statistics show an additional 5,993 jobs have been generated on the Northern Beaches, with the Manly catchment having the highest growth rate, almost double of any other catchment. The Brookvale-Dee Why catchment is the major employment area.

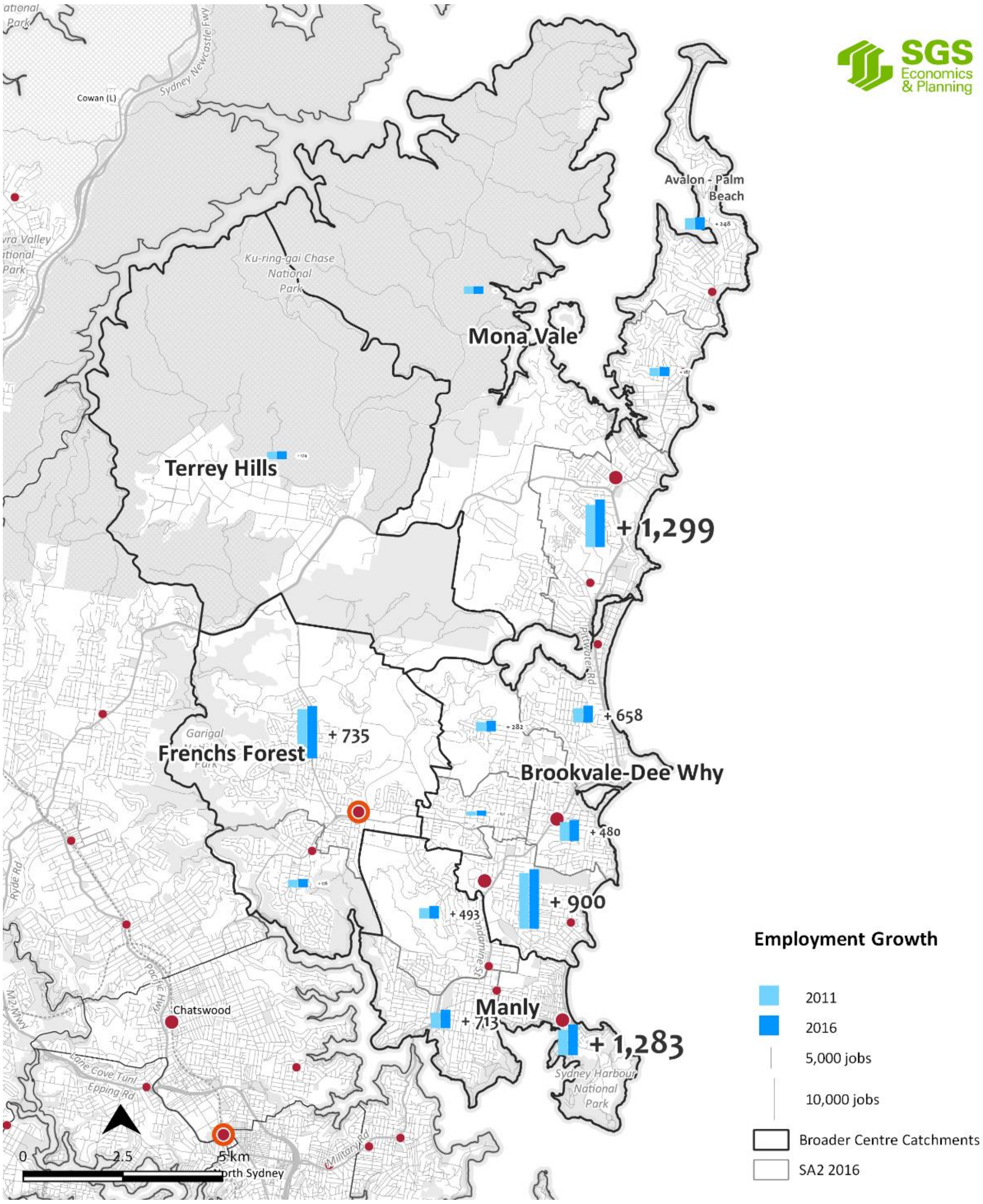
Figure 125 illustrates these employment growth findings (note the growth figure in the table below is related to the spatial area of ‘Broader Centre Catchment’ and the numeric growth figure in Figure 126 is related spatially to ‘SA2s’).

TABLE 158: BROADER CATCHMENTS EMPLOYMENT TOTALS AND GROWTH RATES (2011-2016)

Geography	2011	2016	Growth	CAGR (5-yr %)
Mona Vale	16,901	18,693	1,792	10.60%
Terrey Hills	1,854	2,028	174	9.39%
Frenchs Forest	13,844	14,757	913	6.59%
Brookvale-Dee Why	25,020	27,492	2,472	9.88%
Manly	12,563	15,052	2,489	19.81%
Total	*76,715*	*82,708*	*5,993*	*7.81%*

Source: ABS Census 2011 and 2016 (TableBuilder Pro)

FIGURE 125: EMPLOYMENT GROWTH 2011-2016 BY SA2



Source : SGS, 2019

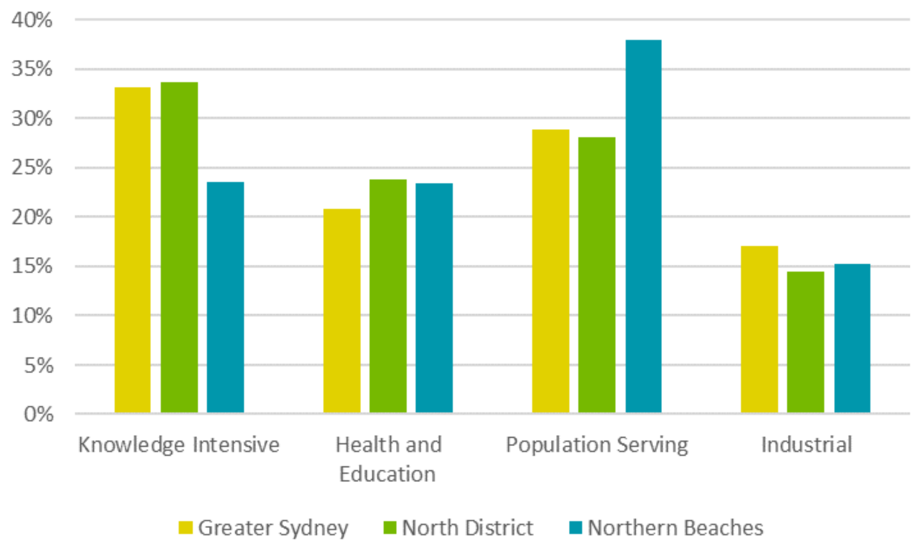
Industry of Employment (POW)

The industry of employment (Place of Work) indicator highlights the profile of jobs that are located in the LGA, regardless of whether the jobs are filled by local residents or people from outside the LGA.

Northern Beaches LGA:

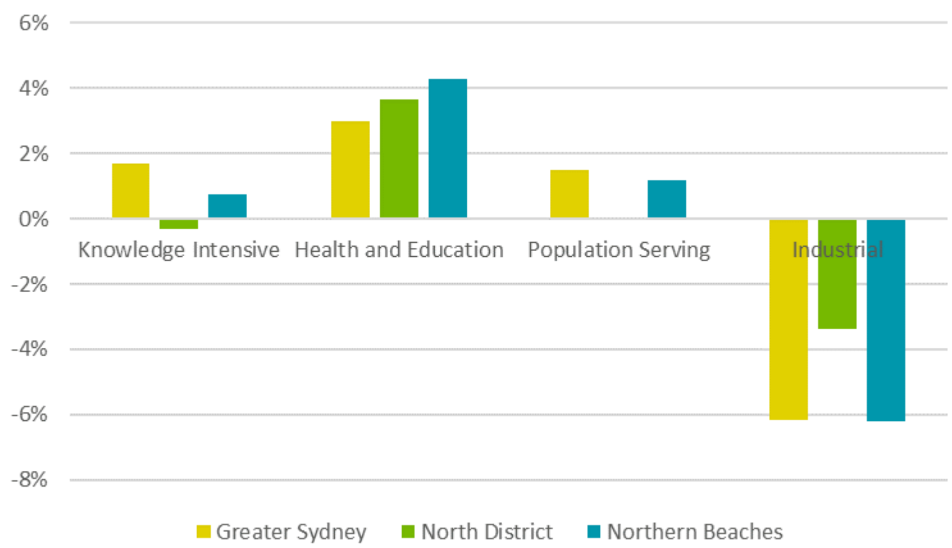
- Has a strong presence of population serving industries compared to Greater Sydney and the North District and a slightly higher proportion of health and education workers than Greater Sydney. There is significantly less knowledge intensive workers located in the LGA than compared to Greater Sydney and the North District.
- Has experienced growth in health and education industries, higher than Greater Sydney and the North District. Industrial industries are in decline in the LGA, a similar occurrence seen across Greater Sydney and the North District.

FIGURE 126: COMPARATIVE INDUSTRY OF EMPLOYMENT (POW) STRUCTURE (2016)



Source: ABS Census 2016 (TableBuilder Pro)

FIGURE 127: COMPARATIVE PROPORTIONAL CHANGE IN INDUSTRY OF EMPLOYMENT (POW) STRUCTURE (2006-2016)



Source: ABS Census 2006, 2011 and 2016 (TableBuilder Pro)

Occupation (POW)

The occupation (Place of Work) indicator reports the types of jobs people work within the LGA.

Northern Beaches LGA has:

- Slightly more professional jobs located in Manly and Frenchs Forest catchment; a slightly higher proportion of technician and trade jobs and machinery operator and driver jobs located in Terrey Hills catchment; and a slightly higher proportion of sales workers in the Mona Vale, Brookvale-Dee Why and Manly catchments.
- A relatively similar occupation structure to Greater Sydney and the North District but noticeably lesser proportion of professional and higher levels of technicians and trades workers, community and personal service workers and sales workers, see Figure 128.
- Experienced an increase in the proportion of professionals and community and personal services workers. Growth of community and personal services workers was higher than Greater Sydney and the North District. There has been a decline in clerical and administrative workers and sales workers.

TABLE 159: BROADER CATCHMENTS OCCUPATION (POW) PROPORTIONS (2016)

Year	Managers	Professionals	Technicians and Trades Workers	Community and Personal Service Workers	Clerical and Administrativ e Workers	Sales Workers	Machinery Operators and Drivers	Labourers
Mona Vale	15%	24%	15%	11%	14%	11%	4%	7%
Terrey Hills	14%	19%	19%	13%	10%	5%	10%	10%
Frenchs Forest	17%	28%	10%	10%	15%	9%	4%	6%
Brookvale-Dee Why	14%	20%	15%	11%	14%	13%	6%	8%
Manly	14%	29%	11%	16%	11%	11%	2%	7%
Total	*15%*	*24%*	*13%*	*12%*	*14%*	*11%*	*4%*	*7%*

Source: ABS Census 2016 (TableBuilder Pro)

FIGURE 128: COMPARATIVE OCCUPATION (POW) STRUCTURE (2016)

Source: ABS Census 2016 (TableBuilder Pro)

FIGURE 129: COMPARATIVE PROPORTIONAL CHANGE IN OCCUPATION (POW) STRUCTURE (2006-2016)

Source: ABS Census 2006, 2011 and 2016 (TableBuilder Pro)

Resident Workforce and Local Jobs

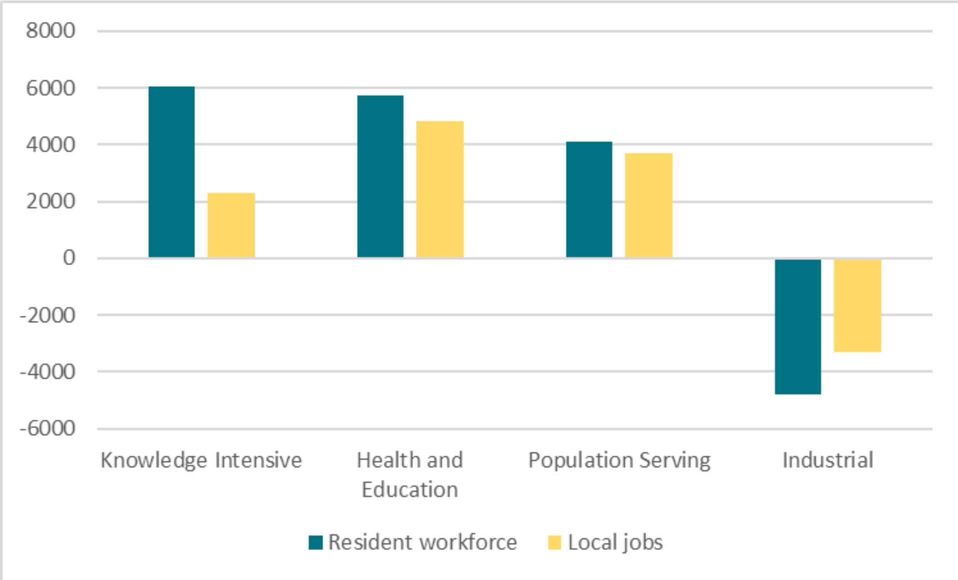
Figure 130 analyses the growth total of employment across the four Broad Industry Classifications between the resident workforce of the Northern Beaches and the local jobs that have been generated over the 10 years between 2006-16.

It shows that the number of Knowledge Intensive workers (6,035) has increased significantly more than the number of Knowledge Intensive jobs that have been generated locally in the region (2,292).

Furthermore, it shows a comparatively similar increase in the number of resident workers in Health and Education (5,742) to local jobs (4,836). A similar story can be said for Population Serving (4,103 compared to 3,683 local jobs).

The number of resident Industrial workers has decreased significantly more than the number of Industrial jobs in the Northern Beaches.

FIGURE 130: NORTHERN BEACHES COMPARATIVE GROWTH TOTAL EMPLOYMENT CHANGE 2006-16



Source: ABS, 2006, 2011, 2016

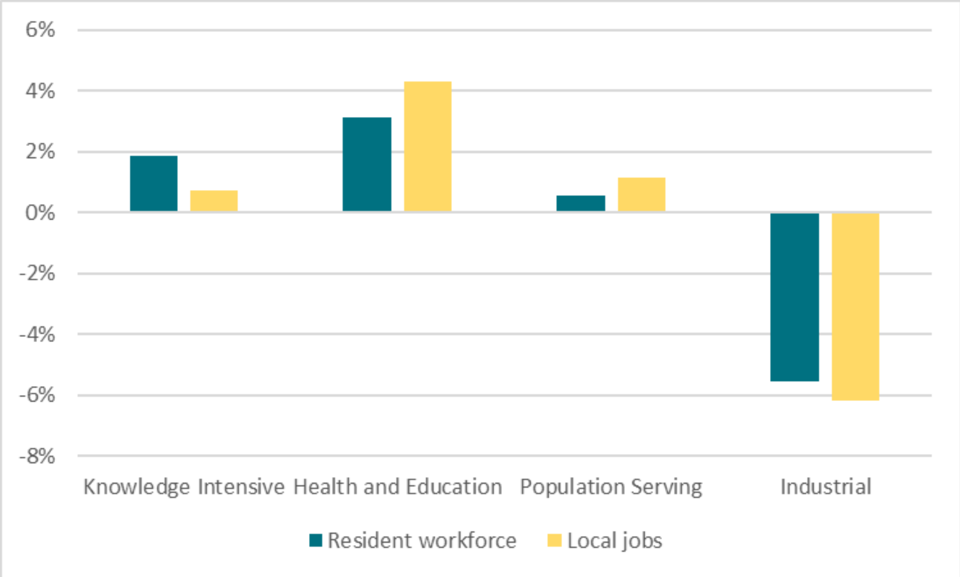
Figure 131 analyses the proportional change of employment across the four Broad Industry Classifications in the Northern Beaches LGA between the resident workforce and local jobs over the 10 years between 2006-16.

It shows that Knowledge Intensive workers have increased as a greater proportion of the Northern Beaches' resident workers than the proportion of local Knowledge Intensive jobs (+1.86% compared to +0.74%).

Health and Education and Population Serving show opposite trends. The proportion of Health and Education resident workers (+3.11%) has not kept up with the proportional increase of local jobs (+4.30%). The same can be said for Population Serving (+0.57% compared to +1.17%).

The proportion of local Industrial jobs has decreased at a faster rate than the proportion of Industrial resident workers (-6.2% compared to -5.53%).

FIGURE 131: NORTHERN BEACHES COMPARATIVE PROPORTIONAL CHANGE OF EMPLOYMENT DIVERSITY 2006-16



Source: ABS, 2006, 2011, 2016

What does this mean?

The self-containment of the Knowledge Intensive industry may have declined over the 10 years between 2006-16 given that the number of Knowledge Intensive workers living in the Northern Beaches has increased significantly higher than the number of local Knowledge Intensive jobs. This likely to be due to Knowledge Intensive workers moving to the Northern Beaches but choosing to commute to the Sydney CBD and North Sydney for work. Proportionately speaking, the share of Knowledge Intensive jobs in the LGA has increased at a slower rate than the share of Knowledge Intensive resident workers.

Industry Specialisation (Location Quotient)

Location Quotient analysis is a measure of relative industry specialisation of a local economy compared with a larger area. In this case, the Northern Beaches industry profile is measured against Greater Sydney to ascertain whether there are certain industries that are relatively more specialised.

Of most importance are the two right hand quadrants. The location quotient score directly compares the proportional size of the industry in the Northern Beaches to Greater Sydney. For example, an LQ 2.0 means that the Northern Beaches is twice as specialised as Greater Sydney, or an LQ of 0.5 meaning that it is half as specialised.

The top right quadrant shows industries that are both specialised and growing while the bottom right shows specialised industries that are contracting. This is shown below in Figure 132 (some outlying industries may have been excluded).

For the Northern Beaches LGA, analysis shows:

- There are a number of industries in the Northern Beaches that are relatively specialised and growing, reflecting diversity in economic performance.
- While no industry in the Northern Beaches has significant specialisation, the most specialised industries are Retail Trade, Accommodation and Food Services and Construction.
- While Professional, Scientific and Technical Services has grown by two per cent since 2011 and is one of the largest Industries in the LGA, it is not as specialised when compared to Greater Sydney. Professional, Scientific and Technical Services can include employment in Finance, Insurance and Legal Services. As data above has indicated, a

large number of resident workers leave the LGA to work in Knowledge Intensive jobs elsewhere in Greater Sydney. This highlights a difference between the skills of local residents and the industry specialisation of the LGA.
- Contraction in non-specialised industries is typically associated with industrial precincts such as wholesale trade and manufacturing.
- While other Knowledge Intensive industries are emerging (Information, Media and Telecommunications and Public. Admin and Safety), they are not as specialised as other industries in the top right quadrant.
- Health Care and Social Assistance and Education and Training are two of the larger industries in the top right quadrant of Established and Growing industries, despite not being the most specialised.

The next stage of the study includes precinct level profiles and analysis.

FIGURE 132: NORTHERN BEACHES LOCATION QUOTIENT ANALYSIS, 2011-2016

Source: ABS, 2011,2016

Employment Multiplier

The Input-Output (I-O) Model is a tool which quantifies the linkages of all sectors in a given economy. A region-specific model for the Northern Beaches LGA was generated to assess economic impacts in the Northern Beaches LGA and current activities on-site.

I-O models measure the relationships and inter-dependence between industries in the economy. The model identifies the buyer and supplier linkages in the local economy, highlighting those industries that have the greatest economic 'multipliers'. Multipliers are measures of the total impact on all industries in an economy arising from changes in the output of a particular industry. For example, an increase in output of the construction industry (i.e. more houses) would have a flow-on effect to industries related to construction. The I-O model framework enables identification of those industries that have the biggest 'bang for the buck' – in terms of value add and employment per additional unit of output.

Table 160 shows the I-O employment multiplier for industries within the Northern Beaches LGA at the 1-digit ANZSIC level, with the industries that have the largest effects to the overall economy of the Northern Beaches. These effects are highlighted in the conditionally formatted colour scale (green being the highest, red being the lowest) for each multiplier. The multiplier can be interpreted as: employment multipliers – at present each $1 million increase in output in Public Administration and Safety, 12 jobs will be generated.

Table 160 also shows output and value-added multipliers which can be interpreted as follows:

- Output Multiplier- for every additional dollar earned in Construction, the level of regional output increases by $1.82
- Value Added Multipliers- for every extra dollar of output generated in the Education and Training industry, total regional income and gross operating surplus will increase by $1.14.

TABLE 160: NORTHERN BEACHES EMPLOYMENT MULTIPLIERS (2016)

Industry of Employment	Output Multiplier	Employment Multiplier	Value Added Multipliers
Agriculture, Forestry and Fishing	1.58	4	0.71
Mining	1.41	2	0.85
Manufacturing	1.43	3	0.61
Electricity, Gas, Water and Waste Services	1.46	2	0.92
Construction	1.82	4	0.73
Wholesale Trade	1.61	4	0.92
Retail Trade	1.63	10	1.07
Accommodation and Food Services	1.57	10	0.93
Transport, Postal and Warehousing	1.54	5	0.87
Information Media and Telecommunications	1.50	3	0.86
Financial and Insurance Services	1.55	3	1.06
Rental, Hiring and Real Estate Services	1.40	2	0.95
Professional, Scientific and Technical Services	1.73	6	1.01
Administrative and Support Services	1.75	6	1.04
Public Administration and Safety	1.73	12	1.10
Education and Training	1.60	5	1.14
Health Care and Social Assistance	1.57	9	1.12
Arts and Recreation Services	1.51	7	0.76
Other Services	1.47	8	0.77

Source: SGS Economics and Planning 2019

The most efficient generators of employment are the Public Admin. and Safety, Retail Trade, Accomm. and Food Services, and Health Care and Social Assistance classifications. Comparatively, Rental, Hiring and Real Estate Services, Mining and Electricity, Gas, Water and Waste Services classifications are diminutive in their effects.

Skills Leakage

This section examines the origin and destinations pairs to illustrate the outward and inward migration of workers in relation to the Northern Beaches LGA.

Key points of interest for the Northern Beaches LGA are:

- **A self-containment rate of approximately 54 per cent,** meaning over half of the resident workforce also work locally. The Demographic Study identified self-containment generally increased moving further north in the LGA (Manly 41 per cent; Frenchs Forest 43 per cent; Brookvale-Dee Why 55 per cent; Mona Vale 61 per cent).
- Leakage of Knowledge Intensive workers from the Northern Beaches to Sydney mostly in but not limited to Banking, Finance and Investment, Legal and Insurance Services (5,231 workers in total). This may be due to the lack of major commercial centres in the LGA, an ageing population, and lack of tertiary education employment opportunities.

- Significant leakage of Higher Education workers travelling to Sydney (526 compared to 109 working locally).
- Leakage of Managers to Sydney most prevalent amongst ICT Managers (790 compared to 290 local workers) and Finance Managers (612 compared to 356 local workers).
- Leakage of Professionals to Sydney, most prevalent amongst Solicitors (644 compared to 246 local workers), HR Professionals (528 compared to 285) and Financial Dealers (397 compared to 76 local workers).
- **A self-sufficiency rate of approximately 77 per cent,** meaning over three quarters of the local jobs available are filled by working residents of the Northern Beaches.
- Inward movement of workers to Northern Beaches LGA from other LGA, while miniscule, is mostly coming from surrounding LGAs including Ku-ring-gai, Hornsby and North Sydney.
- Notable subsets of the Knowledge Intensive and Health and Education Industries coming into the Northern Beaches include Computer System Design and Related Services (166 spread across the three aforementioned LGAs), Other Social Assistance Services (204), Aged Care Residential Services (161), and Primary Education (156).
- Some notable subsets of the Occupations coming into the Northern Beaches include Accountants (155), Primary School Teachers (148), Secondary School Teachers (148), Retail Managers (147) and Advertising, Public Relations and Sales Managers (127).

Outward migration of workers

The table below details the outward migration of Northern Beaches working residents by industry type. The Northern Beaches **self-containment rate is 54 per cent**, meaning over half of the resident workforce work locally in the LGA.

Data indicates there is a slightly larger number of Northern Beaches Knowledge Intensive workers commuting to Sydney than working locally in the LGA, and strong numbers in surrounding employment centres at North Sydney and Willoughby. Computer System Design and Related Services (1,200-1,400) and Accounting Services (900-1,000) are fairly spread across Sydney and the Northern Beaches. However, there is a significant skill leakage of Banking (2,207 travelling to Sydney compared to 332 working locally), Other Auxiliary Finance and Investment Services (1,240 compared to 560), Legal Services (1,045 compared to 519) and General Insurance (739 compared to 154) [27].

Sydney is also a popular employment destination for Health and Education work outside of the Northern Beaches, however, self-containment of the LGA's Health and Education resident workforce is significantly high. Primary Education, Aged Care Residential Services, Hospitals, Other Social Assistance, Secondary Education and Child Care Services workers contain the highest totals and are fairly self-contained, while there is a skill leakage towards Sydney of Northern Beaches residents working in the Higher Education sector (526 compared to 109 working locally)[28].

Population Serving industries are also significantly self-contained, however, there are also strong numbers travelling to Sydney, North Sydney and Willoughby. Interestingly, there are approximately 3,000 people that work in the Population Serving sector with No Fixed Address living in the Northern Beaches, mostly in the Construction Industry[28]. Industrial workers are also fairly self-contained, with strong numbers travelling to Sydney, Ryde and Botany Bay.

[27] As a result of further cross-tabulation of ABS Census 2016 data
[28] As a result of further cross-tabulation of ABS Census 2016 data

TABLE 161: PLACE OF WORK FOR NORTHERN BEACHES' WORKING RESIDENTS BASED ON INDUSTRY TYPE (2016)

Geography	Knowledge Intensive	Health and Education	Population Serving	Industrial
Northern Beaches (A)	15,675	15,075	24,710	8,413
Sydney (C)	16,659	2,013	3,251	1,344
North Sydney (A)	3,691	1,029	1,139	568
Willoughby (C)	1,859	1,643	1,498	652
No Fixed Address (NSW)	1,307	670	2,988	509
Ryde (C)	1,197	618	513	1,177
Ku-ring-gai (A)	364	1,103	477	117
Mosman (A)	382	469	779	50
Parramatta (C)	529	256	322	394
Botany Bay (C)	120	18	167	758

Source: ABS Census 2016 (TableBuilder Pro)

Table 162 details the outward migration of Northern Beaches working residents by Occupation type. It shows there is a significantly high proportion of Northern Beaches working residents employed as Managers working locally or in Sydney (9,500 and 6,500 people respectively). Advertising, Public Relations and Sales Managers have strong numbers across both LGAs, Retail, Construction and Café and Restaurant Managers are more self-contained, and a greater share of Northern Beaches ICT Managers (790 compared to 290 working locally) and Finance Managers (612 compared to 356 working locally) are travelling to Sydney for work[29].

The majority of Northern Beaches' Professionals are working locally or travelling to Sydney. Accounting (800-900) and Advertising and Marketing Professionals (730-760) are the largest Professional subsets fairly spread across both LGAs. Early Childhood, Primary and Secondary School Teachers, Registered Nurses and Private Tutors are significantly self-contained (combined total of 4,249 workers), while Northern Beaches' Solicitors (644 compared to 246 working locally), Human Resource Professionals (528 compared to 285), and Financial Dealers (397 compared to 76) are largely travelling to Sydney for work[30].

[29] As a result of further cross-tabulation of ABS Census 2016 data
[30] As a result of further cross-tabulation of ABS Census 2016 data

TABLE 162: PLACE OF WORK FOR NORTHERN BEACHES' WORKING RESIDENTS BASED ON OCCUPATION TYPE (2016)

Geography	Managers	Professionals	Technicians and Trades Workers	Community and Personal Service Workers	Clerical and Administrative Workers	Sales Workers	Machinery Operators and Drivers	Labourers
Northern Beaches (A)	9,464	15,537	8,343	8,313	9,819	7,785	2,693	4,529
Sydney (C)	6,448	10,170	1,025	878	3,475	1,397	87	222
North Sydney (A)	1,790	2,483	381	384	947	477	43	90
Willoughby (C)	1,078	2,049	517	457	924	558	95	144
No Fixed Address (NSW)	432	731	2,253	561	186	240	253	1,021
Ryde (C)	1,161	1,407	244	95	440	201	27	27
Ku-ring-gai (A)	334	808	208	294	266	128	9	59
Mosman (A)	255	397	262	300	213	200	17	73
Parramatta (C)	445	505	144	92	212	85	34	34
Botany Bay (C)	224	266	123	223	81	66	64	25

Source: ABS Census 2016 (TableBuilder Pro)

Inward migration of workers

Table 163 details the inward migration of workers commuting to the Northern Beaches LGA from elsewhere, in addition to Northern Beaches working residents that commute locally within the LGA, by industry type.

As can be seen, the majority of jobs across all four BICs are significantly self-contained, culminating in a **self-sufficiency rate of approximately 77 per cent.** Outside workers are travelling from surrounding LGAs including Ku-ring-gai, Hornsby and North Sydney.

Further examination of the Knowledge Intensive Industry reveals that the Northern Beaches is significantly self-contained across all subsets, with some of the largest totals being Computer System Design and Related Services (1,460), Real Estate Services (1,241), Accounting Services (1,078), and Local Government Administration (974). Of the outside workers that are travelling to the Northern Beaches for employment, the majority are also working in Computer System Design and Related Services (166 spread Ku-ring-gai, Hornsby and North Sydney LGAs) [31].

Further examination of the Health and Education Industry reveals that the Northern Beaches is significantly self-contained across all subsets, with most of the outside workers travelling to the LGA to work in Other Social Assistance Services (204), Aged Care Residential Services (161), and Primary Education (156) [32].

The Population Serving sector in the Northern Beaches is also significantly self-contained, with the majority of local workers employed in Cafes and Restaurants (2,476), Supermarket and Grocery Stores (1,743), Takeaway Food Services (1,259), Clothing Retailing (948) and Club Hospitality (880) [33].

[31] As a result of further cross-tabulation of ABS Census 2016 data
[32] As a result of further cross-tabulation of ABS Census 2016 data
[33] As a result of further cross-tabulation of ABS Census 2016 data

TABLE 163: INWARD MIGRATION OF WORKERS BASED ON INDUSTRY TYPE (2016)

Geography	Knowledge Intensive	Health and Education	Population Serving	Industrial
Northern Beaches (A)	15,675	15,075	24,710	8,413
Ku-ring-gai (A)	454	709	707	496
Hornsby (A)	340	390	580	450
North Sydney (A)	237	386	441	244
Central Coast (C) (NSW)	248	171	493	282
Willoughby (C)	217	340	382	238
Ryde (C)	185	214	354	238
Sydney (C)	178	228	423	160
Parramatta (C)	191	180	312	226
Inner West (A)	165	177	283	152

Source: ABS Census 2016 (TableBuilder Pro)

Table 164 details the inward migration of workers commuting to the Northern Beaches LGA from elsewhere, in addition to Northern Beaches' working residents that commute within the LGA, by Occupation type. It still shows a significant level of self-sufficiency in the LGA.

Outside of the Northern Beaches LGA, the majority of Professionals commuting to the Northern Beaches are coming from Ku-ring-gai, Hornsby and North Sydney. While the Occupation is largely self-contained, there are a number of Accountants (155), Primary School Teachers (137) and Secondary School Teachers (148) travelling from the three aforementioned LGAs[34].

Similarly, for Managers, while the Occupation is largely self-contained, workers from Ku-ring-gai, Hornsby and North Sydney are largely coming to work as Retail Managers (147), and Advertising, Public Relations and Sales Managers (127) [35].

[34] As a result of further cross-tabulation of ABS Census 2016 data
[35] As a result of further cross-tabulation of ABS Census 2016 data

TABLE 164: PLACE OF USUAL RESIDENCE OF WORKERS BASED ON OCCUPATION TYPE (2016)

Geography	Managers	Professionals	Technicians and Trades Workers	Community and Personal Service Workers	Clerical and Administrative Workers	Sales Workers	Machinery Operators and Drivers	Labourers
Northern Beaches (A)	**9,464**	**15,537**	8,343	8,313	**9,819**	7,785	2,693	4,529
Ku-ring-gai (A)	462	**835**	215	233	275	225	80	111
Hornsby (A)	323	487	283	174	190	127	101	136
North Sydney (A)	274	445	151	115	132	126	44	58
Central Coast (C) (NSW)	187	163	**356**	114	121	80	116	104
Willoughby (C)	199	**379**	170	102	134	114	47	67
Ryde (C)	172	310	157	90	115	87	53	66
Sydney (C)	159	324	154	148	76	78	16	84
Parramatta (C)	127	253	161	74	99	76	53	86
Inner West (A)	123	233	145	69	61	72	29	68

Source: ABS Census 2016 (TableBuilder Pro)

Market Trends - Floorspace Vacancies

SGS undertook a broad desktop review of relevant market indicators covering retail, commercial and industrial markets within and surrounding the Northern Beaches LGA. The employment market vacancies results were largely taken from Real Commercial[36].

A limitation of the broad desktop review was the inability to obtain real price data on every property for lease without directly contacting the real estate agencies. Of 420 properties that SGS gathered data on regarding Northern Beaches vacancies in April 2019, 287 had lease prices readily available.

The analysis found a concentration of vacancies in centres across the LGA, namely Frenchs Forest, Belrose-Terrey Hills, Manly, Brookvale, Dee Why, Cromer-Collaroy, Narrabeen, Mona Vale and Newport.

The key findings were:

- Manly appears to have the highest average price per sqm ($797) for retail and commercial vacancies, while Frenchs Forest has the lowest.
- Industrial properties cost less per sqm when compared to retail and commercial properties, with Brookvale containing the highest average price ($294 per sqm), and Cromer-Collaroy having the lowest ($207 per sqm).

[36] RealCommercial.com.au

TABLE 165: COMMERCIAL AND RETAIL VACANCIES (APRIL 2019) *

Centre	Average Price ($ per sqm)	Median Price ($ per sqm)	Minimum Price ($ per sqm)	Maximum Price ($ per sqm)
Frenchs Forest	$338	$363	$92	$681
Belrose-Terrey Hills	$391	$310	$208	$770
Manly	$797	$673	$358	$2,273
Brookvale	$459	$352	$85	$851
Dee Why	$441	$357	$107	$1,210
Cromer-Collaroy	$679	$588	$292	$1,144
Narrabeen	$573	$440	$228	$1,746
Mona Vale	$469	$380	$219	$910
Newport	$641	$585	$268	$1,180

SGS Economics and Planning 2019 using Real Commercial

*Commercial and Retail Vacancies have been combined as many are listed as both

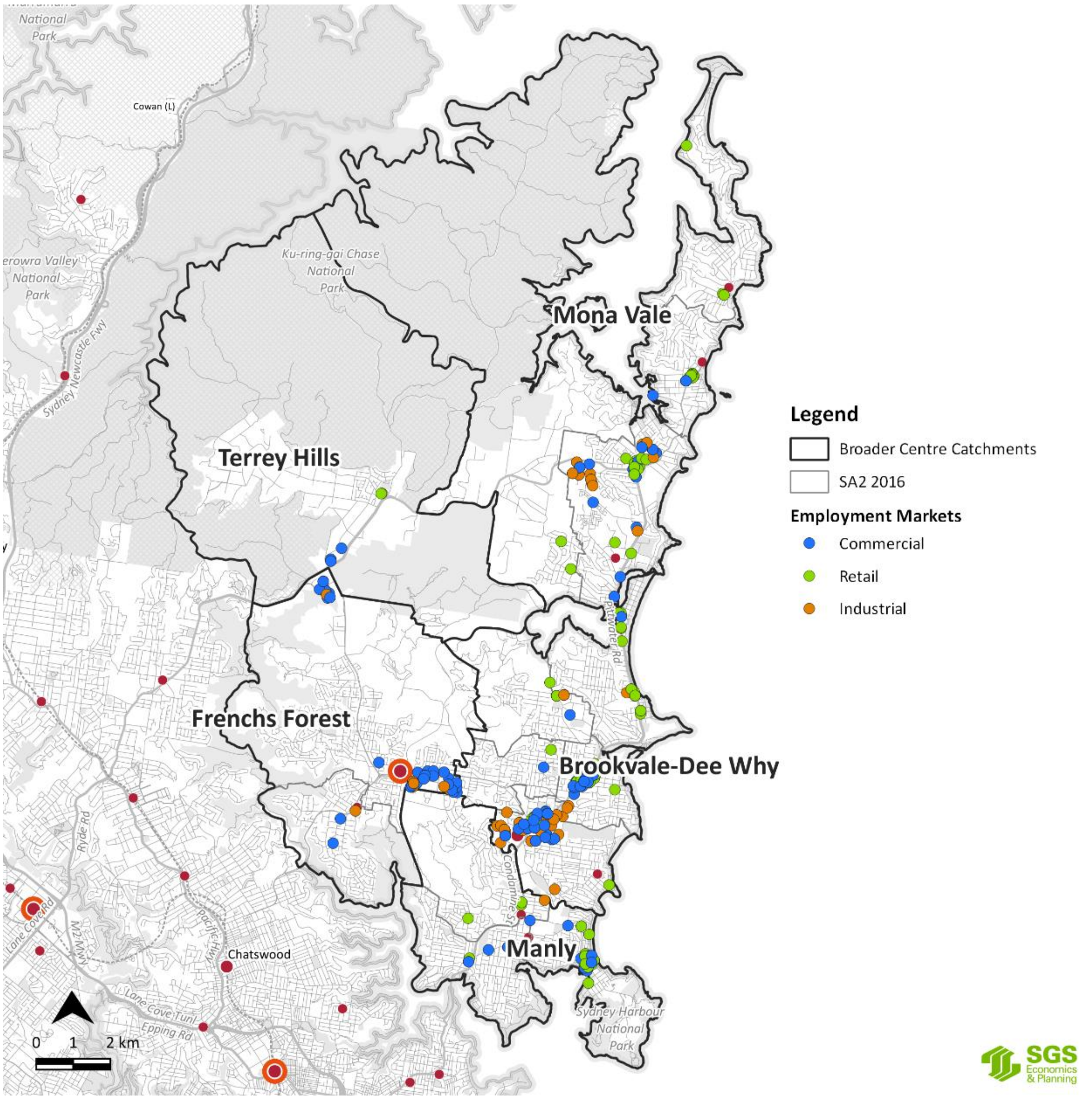
TABLE 166: INDUSTRIAL VACANCIES (APRIL 2019)

Centre	Average Price ($ per sqm)	Median Price ($ per sqm)	Minimum Price ($ per sqm)	Maximum Price ($ per sqm)
Frenchs Forest	$270	$362	$53	$364
Belrose-Terrey Hills	$233	$234	$192	$275
Manly	$282	$282	$244	$321
Brookvale	$294	$351	$116	$660
Cromer-Collaroy	$207	$203	$153	$252
Narrabeen	$224	$218	$156	$280
Mona Vale	$258	$271	$185	$356

SGS Economics and Planning 2019 using Real Commercial

Figure 26134 depicts the distribution of retail, commercial and industrial vacancies within the Northern Beaches LGA.

FIGURE 133: EMPLOYMENT MARKET VACANCIES (APRIL 2019)



SOURCE: SGS ECONOMICS AND PLANNING 2019 USING REAL COMMERCIAL

Historical Sales

SGS also undertook an analysis of historical commercial and business sales in the Northern Beaches using RP Data[37]. Where appropriate and possible, SGS also cross-checked RP's data with other commercial data sources to minimise the inaccuracies recorded online. This was particularly useful when trying to determine the floor area of each property that had been sold.

The analysis shows a more consistent and stable trend across the centres for sales in comparison employment market vacancies shown previous, which showed a larger disparity of prices across centres.

The key findings were:

- The average price for a commercial/business property ranged from $5,000 - $7,000 per sqm (November 2018 to May 2019).
- Manly had the highest average price of $12,181 per sqm.
- Belrose-Terrey Hills was the least expensive with an average price of $4,254 per sqm.

[37] https://www.corelogic.com.au/

TABLE 167: NORTHERN BEACHES HISTORICAL COMMERCIAL SALES (NOVEMBER 2018 – MAY 2019)

Centre	Average Price ($ per sqm)	Median Price ($ per sqm)	Minimum Price ($ per sqm)	Maximum Price ($ per sqm)
Frenchs Forest	$5,571	$3,000	$2,933	$13,350
Belrose-Terrey Hills	$4,254	$4,354	$3,750	$4,557
Manly*	-	-	-	-
Brookvale	$5,186	$5,011	$1,407	$8,861
Dee Why	$5,051	$4,398	$2,500	$10,438
Cromer-Collaroy	$6,771	$6,684	$6,564	$7,067
Narrabeen	$6,764	$7,798	$1,977	$10,516
Mona Vale	$6,060	$5,955	$5,580	$6,646
Newport	$10,875	$10,540	$6,471	$17,917

SGS Economics and Planning 2019 using RP Data

*Only one commercial property listed as sold in the last six months- for $12,181 per sqm.

Method of Travel to Work (POW)

The method of travel to work (Place of Work) indicator reports how those who work in the LGA travel to work.

For Northern Beaches LGA:

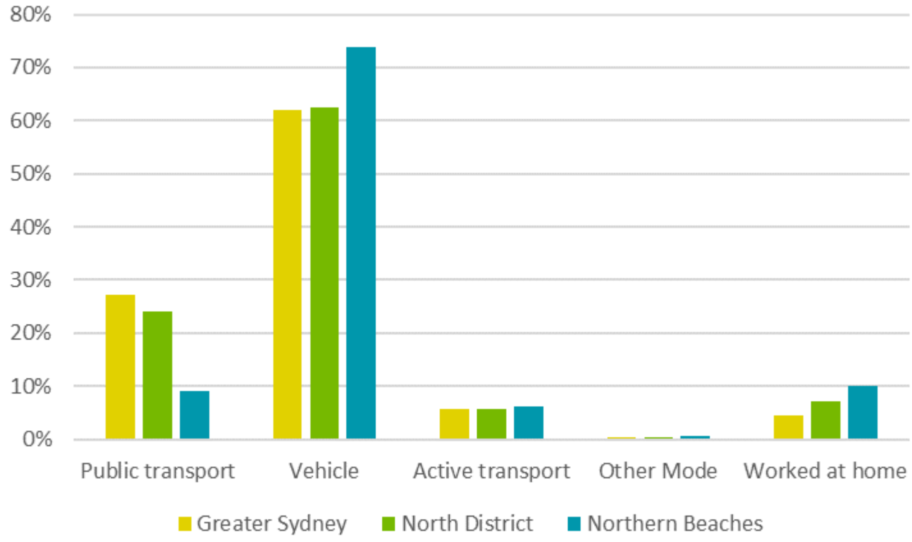
- Most workers originate in the LGA, at about 82 per cent.
- Majority of workers use vehicles to access work which is higher than Greater Sydney and the North District.
- Between 2006 and 2016, there was a slight increase in the proportion of people using public transport to access work and concurrently a drop in those using vehicles. However, both these figures were far less than the proportion seen in Greater Sydney and the North District.

TABLE 168: ORIGIN OF WORKERS EMPLOYED ON THE NORTHERN BEACHES (2016)

Geography (POW)	2016	%
Northern Beaches	67,575	81.60%
Ku-ring-gai	2,478	2.99%
Hornsby	1,853	2.24%
North Sydney	1,358	1.64%
Central Coast	1,272	1.54%
Willoughby	1,234	1.49%
Sydney	1,058	1.28%
Ryde	1,057	1.28%
Parramatta	960	1.16%
Inner West	815	0.98%

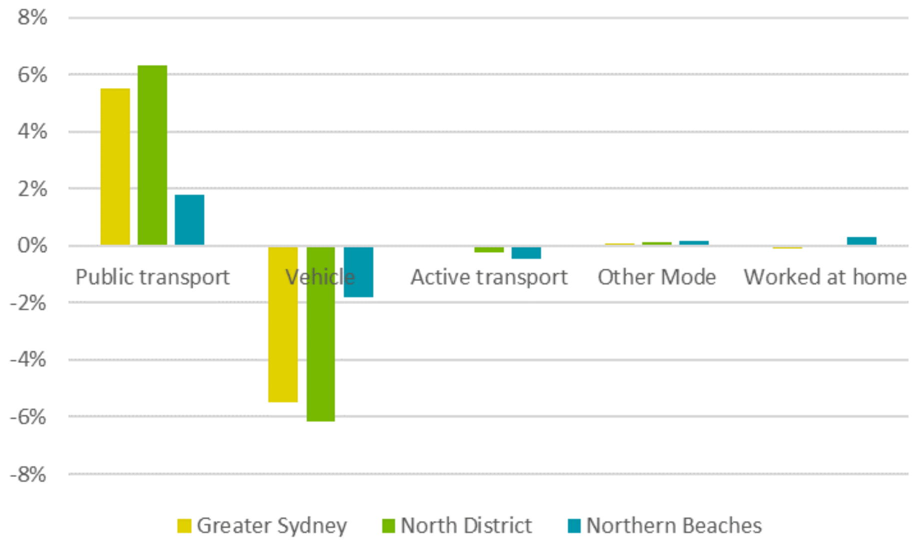
Source: ABS Census 2016 (Tablebuilder Pro)

FIGURE 134: COMPARATIVE METHOD OF TRAVEL TO WORK (POW) STRUCTURE (2016)



Source: ABS Census 2016 (TableBuilder Pro)

FIGURE 135: COMPARATIVE PROPORTIONAL CHANGE IN METHOD OF TRAVEL TO WORK (POW) STRUCTURE (2006-2016)



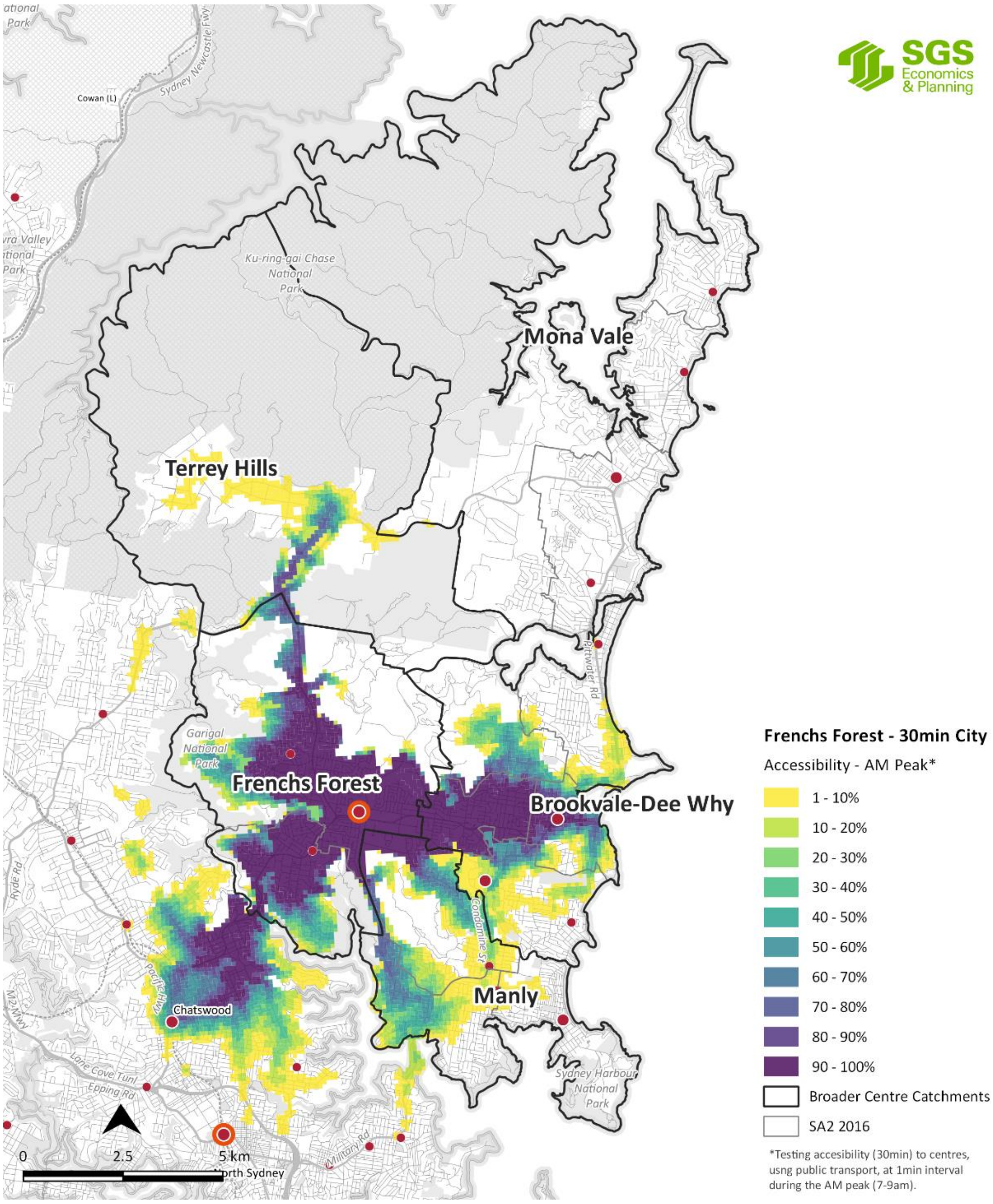
Source: ABS Census 2006, 2011 and 2016 (TableBuilder Pro)

Employment Centre Accessibility

In keeping with the Greater Sydney Commission's focus on the 30-minute city, the following series of maps indicate accessibility within 30-minutes to a centre in the Northern Beaches LGA via public transport during the AM peak (7am-9am).

Frenchs Forest has broad 30-minute coverage but low densities. Thirty-minute accessibility to the Frenchs Forest centre is generally focussed east-west within the LGA with strong access between Frenchs Forest and Brookvale-Dee Why. Frenchs Forest centre is also accessible in 30-minutes north to Terrey Hills. There is also good access between Frenchs Forest and Chatswood. A challenge for Frenchs Forest centre maybe the lack of workers in direct vicinity of the centre given the low densities. This may change with the town centre and Hospital development.

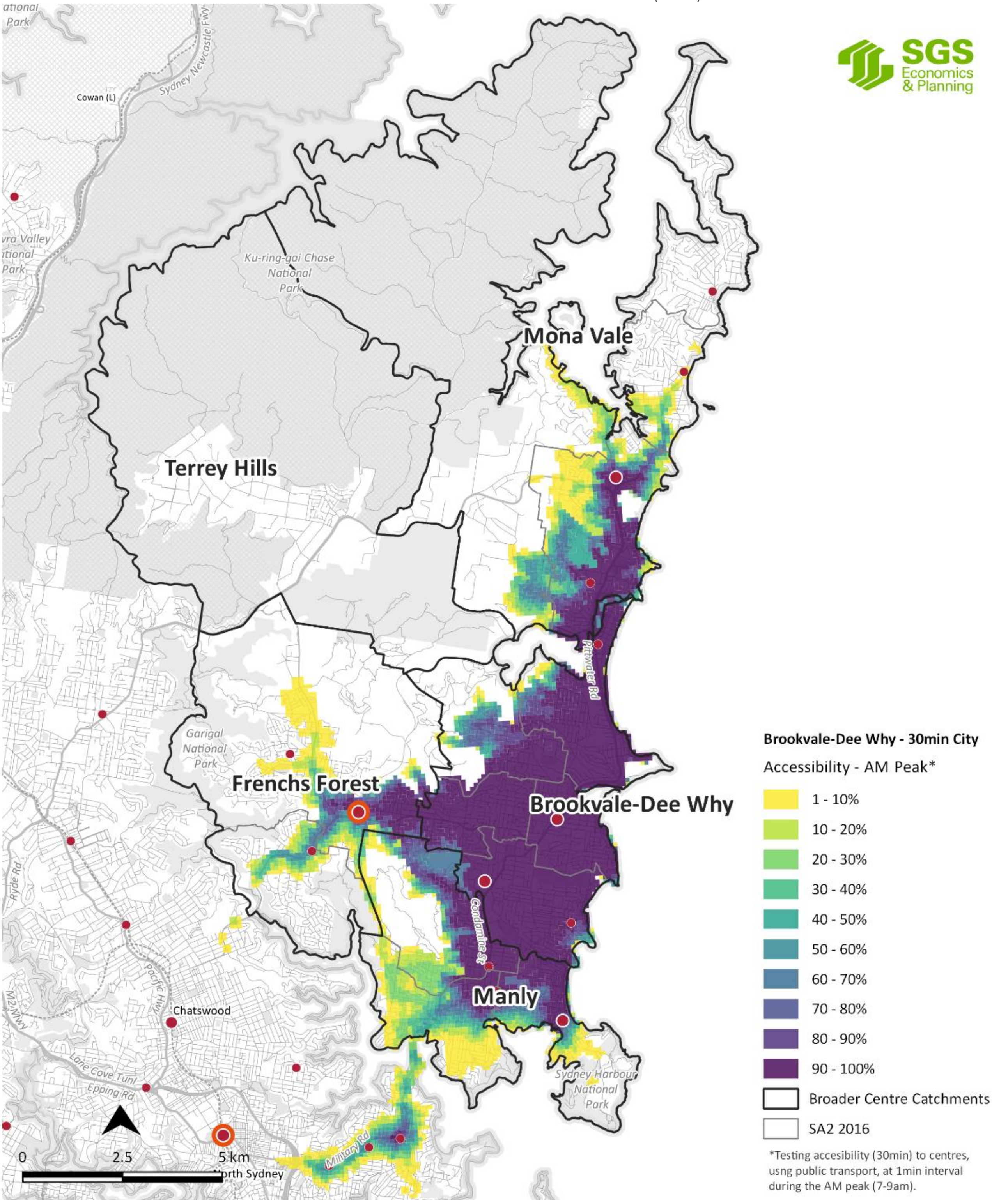
FIGURE 136: 30MIN ACCESSIBILITY TO FRENCHS FOREST DURING AM PEAK– MAP (2019)



Source: SGS Economics and Planning 2019 and Open Data NSW - General Transit Feed Specification (GTFS) 2019

Thirty-minute accessibility in the AM peak to Brookvale-Dee Why is widespread across the LGA. The strongest level of access (90-100 per cent) reaches other town centres as far north as Warriewood and south to Manly and west to Frenchs Forest.

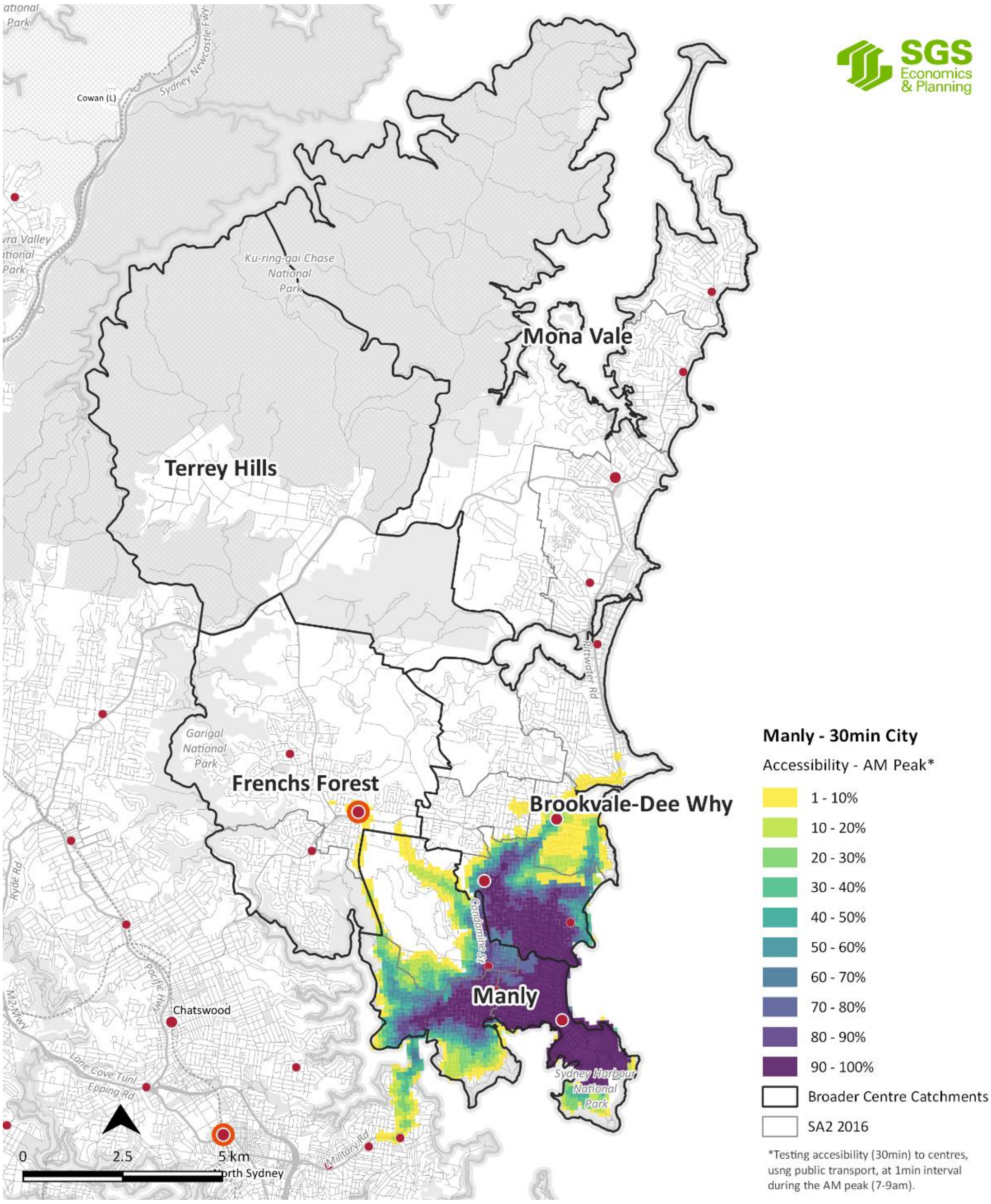
FIGURE 137: 30MIN ACCESSIBILITY TO BROOKVALE-DEE WHY DURING AM PEAK– MAP (2019)



Source: SGS Economics and Planning 2019 and Open Data NSW - General Transit Feed Specification (GTFS) 2019

Accessibility to Manly town centre in 30-minutes is much more contained in the AM peak. The strongest level is access is centred around suburbs to Manly town centre such as Manly Vale, Queenscliff and Balgowah and would be indicative of lower public transport offerings around this centre.

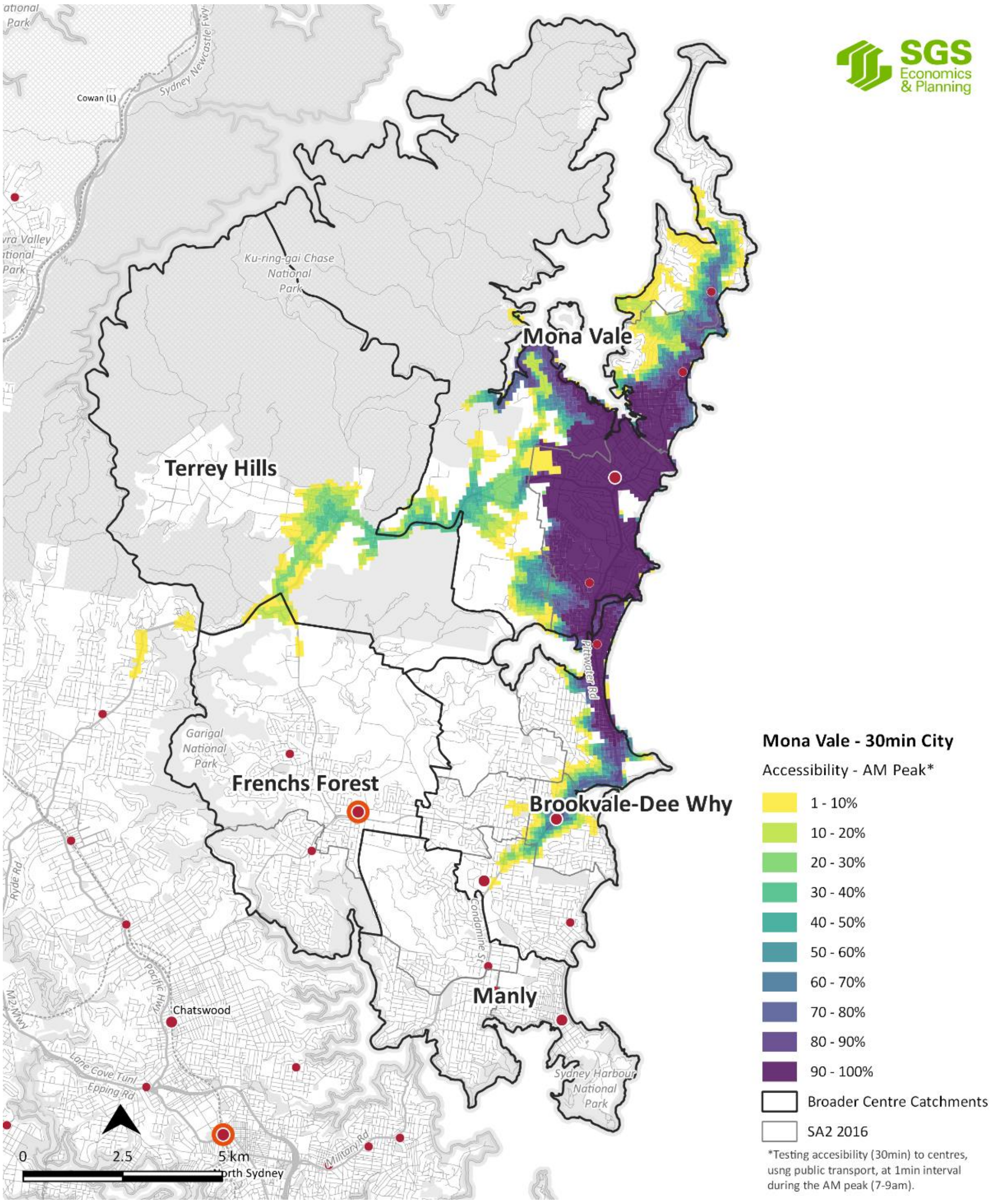
FIGURE 138: 30MIN ACCESSIBILITY TO MANLY DURING AM PEAK– MAP (2019)



Source: SGS Economics and Planning 2019 and Open Data NSW - General Transit Feed Specification (GTFS) 2019

Accessibility to/from Mona Vale by public transport in the AM peak is contained to the northern portion of the LGA. As noted in the Demographic study, Mona Vale has low densities, high private vehicle use for the journey to work and the largest number of workers with alternate working arrangements (eg: Working from Home), therefore tailored solutions to this mode of employment would need to be investigated and accessibility to the rest of the LGA would need to be supported.

FIGURE 139: 30MIN ACCESSIBILITY TO MOVA VALE DURING AM PEAK– MAP (2019)



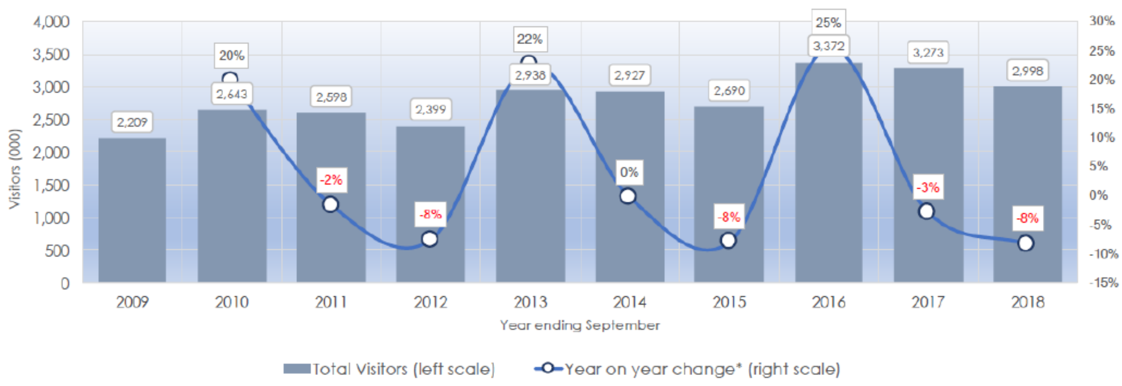
Source: SGS Economics and Planning 2019 and Open Data NSW - General Transit Feed Specification (GTFS) 2019

13.14 Tourism

For the year ending March 2018, Destination NSW estimates the total number of international visitors to Manly (those who stayed overnight and those who visited on a day trip) was 1.1 million. This was a quarter of all international visitors to NSW. The total number of international visitors that stayed overnight was 62,600 persons. The top activities that they undertook in Manly were eating in restaurants and cafes (96 per cent), visited the beach (90 per cent), sightseeing (87 per cent), shopping for pleasure (82 per cent), and visited national/state park (66 per cent).

On the domestic visitor front, there was 901,200 domestic overnight visitors in the year ending March 2018 (including those who stayed overnight elsewhere). This accounted for three per cent of all domestic visitors to NSW. They mainly travelled to Manly to visit family and friends and mostly came from regional NSW. The top activities they engaged in were eating out (88 per cent), visiting family and friends (55 per cent), going to the beach (51 per cent) and sightseeing (33 per cent).

FIGURE 140: TOTAL VISITORS NORTHERN BEACHES LGA

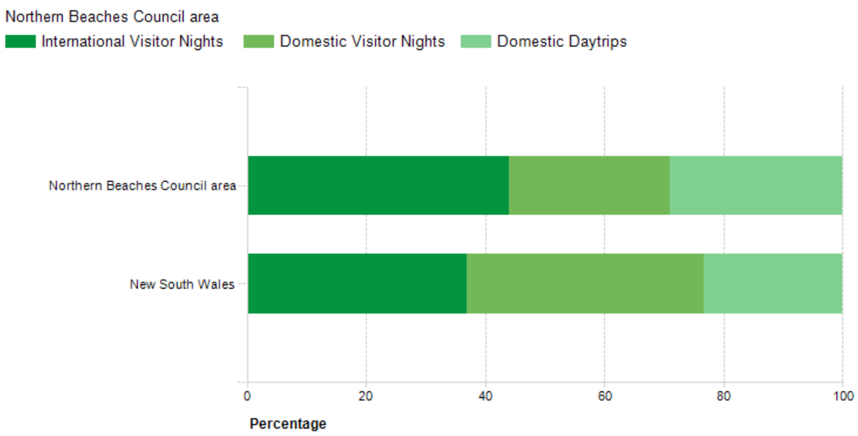


Source: Northern Beaches Destination Management Plan, 2019

For total visitors to the LGA, long term trends (2009-2018) suggest visitors have been variable overtime, rising to a peak in 2016 of 3,372,000 visitors and falling slightly to 2,998,000 by 2018.

In 2017/18, it was estimated that Northern Beaches LGA on average had a higher proportion of international visitor nights and domestic day trippers than NSW as a whole.

FIGURE 141: NORTHERN BEACHES LGA, BREAKDOWN OF VISITOR NIGHTS 2017/18



Source: Economy ID, https://economy.id.com.au/northern-beaches/tourism-visitor-summary, date accessed: 04/06/2019

Tourism and hospitality contributed to 9,500 direct and 4,380 indirect employment jobs in the LGA. Most employees were aged between 25 to 44 years (39 per cent) and 15 to 24 years (36 per cent)[38].

Five-year data analysis (2013/14 - 2017/18) suggests domestic overnight visitors tended to stay in the LGA between two to four days. Visiting friends and family was the major reason for visitation at 54.3 per cent. For international visitors, the average length of stay was between 15 to 21 day for reasons of holiday. Some visitors stayed up to 95 days for reasons of education and employment.

FIGURE 142: VISITOR DATA FOR NORTHERN BEACHES

Main Reason for Trip 5 year total: 2013/14 – 2017/18	DOMESTIC OVERNIGHT				INTERNATIONAL			
	Visitors	Visitor Nights	% Visitors[1]	Av. Length of Stay (days)[1]	Visitors	Visitor Nights	% Visitors[1]	Av. Length of Stay (days)[1]
Visiting friends and relatives	1,317,444	4,139,579	54.3%	3.1	174,905	2,753,160	35.8%	15.7
Holiday	636,445	1,856,091	26.2%	2.9	175,560	3,678,900	36.0%	21.0
Business	344,200	978,417	14.2%	2.8	27,222	298,350	5.6%	11.0
Education					27,969	2,466,336	5.7%	88.2
Employment					13,666	1,280,909	2.8%	93.7
Other reason	132,695	566,839	5.5%	4.3	68,652	1,542,227	14.1%	22.5
TOTAL	**2,426,159**	**7,540,927**	**100%**	**3.1**	**487,977**	**12,019,884**	**100%**	**24.6**

Note 1: **Green** = higher than for NSW; **Orange** = equal to or near all of NSW; **Red** = Lower than for NSW

Source: Northern Beaches Destination Management Plan, 2019

[38] Northern Beaches Destination Management Plan, 2019, p. 23.

13.15 Key Findings

Low population growth rates and an ageing population

Northern Beaches LGA will have lower growth rates than the Greater Sydney region and the North District, as well as an increasingly ageing population which is generally consistent with Greater Sydney. There may be a rise in the 20 to 30-year old 'young adult' age bracket as the youth group transitions. Overseas migrants are locating in Northern Beaches LGA and tend to be of working age. They would replenish the workforce. Economic centres, businesses, planning and policy will have to respond to the trend of an ageing population and attempt to maintain diversity in the community by catering to the needs of all age groups.

A part-time and highly self-contained workforce

Northern Beaches LGA has a higher proportion of people working part-time than Greater Sydney and the North District and this has been growing since 2006. Just over half of the local resident population work locally, and over three quarters of the local jobs are filled by local working residents. Self-containment generally increases moving north in the LGA.

A higher share of local residents work in knowledge intensive jobs and population serving jobs, although there has been a rise in the number of people working in health and education. Residents working in industrial industries has decreased over time. The lack of affordable housing may be linked to the decrease of residents working in industrial industries and the high number of workers coming to the LGA working in healthcare related jobs.

Knowledge Intensive and Population Serving jobs are well represented in the LGA, Health and Education jobs have experienced the most growth

Most local residents are employed in knowledge intensive related jobs (about 32 per cent) and population serving related jobs (about 31 per cent). Between 2006 and 2016, the proportion of knowledge intensive and health and education jobs held by local residents increased in the LGA, whereas population serving jobs only experienced a small increase and industrial jobs undertaken by residents decreased by about -6 per cent.

Residents in the Manly catchment have a higher share of knowledge related jobs and less population serving jobs when compared to the rest of the LGA; residents working in health and education jobs are generally equally distributed across the LGA.

Professional and managers are the most common occupations for local residents

Professionals and managers living in the LGA tend to be located in the suburbs of Manly-Fairlight, Balgowlah-Clontarf-Seaforth; whereas industrial workers in the LGA tend to be located around Beacon Hill-Narraweena and Dee Why-North Curl. Suburbs with major retail outlets had a greater presence of sales workers.

Growth rates indicate all occupations held by local residents in the LGA have remained stagnant or declined between 2006 and 2016, except professionals and managers, and community and personal services which have significantly risen. The growth in community and personal services occupations is likely to be linked to growth in health and education jobs overall and an ageing population.

Employment has grown in Manly

An additional 5,993 jobs have been generated in the LGA between 2011 and 2016 with the majority of these located in the Manly catchment with +2,489 jobs and a growth rate of 20 per cent. Brookvale-Dee Why catchment also exhibited a strong rise in jobs at +2,472 jobs and a growth rate of 10 per cent.

Increased proportion of professional services and community and personal services jobs available in the LGA

In relation to the types of jobs people work within in the LGA, data indicates there has been an increase in the proportion of professional services and community and personal services jobs. There has been a decline in clerical and administrative workers and sales workers. There are slightly more professional jobs located in Manly and Frenchs Forest; slightly more sales related jobs in Mona Vale, Brookvale-Dee Why and Manly; and slightly more technician and trade jobs in the Terrey Hills catchment.

Resident workforce compared to local job offerings is more balanced for health and education and population serving industries than knowledge intensive industries

The number of knowledge intensive workers living the LGA (6,035) has increased more than the number of knowledge intensive jobs that exist in the LGA (2,292). Whereas, the number of resident workers to local jobs for health and education (5,742 resident workers to 4,836 local jobs) and population serving (4,103 resident workers to 3,683 local jobs) industries is more balanced.

High rates of private vehicle use to access employment

Private vehicle use for the journey to work is extremely high in the Northern Beaches LGA and above the level of vehicle use for Greater Sydney and the North District. Private vehicle use generally increases moving north of the LGA. High vehicle use could be attributed to the lack of public transport options, and distance, to employment centres outside of the LGA but also within the LGA, given the high rate of job self-containment. The proportion of people using public transport has grown in the LGA, albeit at a much lower level when compared to Greater Sydney and the North District. Around Manly there is greater public transport use compared to the rest of the LGA.

Employment Centre Accessibility

There are strong 30-minute linkages between Frenchs Forest and Brookvale-Dee Why, as well as to Chatswood. Generally, there is strong 30-minute access radiating out of Brookvale-Dee Why to surrounding areas in the LGA. Manly and Mona Vale centres have contained 30-minute accessibility in the AM peak. Low densities around centres, in particular Frenchs Forest and Mona Vale impacts the availability of workers within the 30-minute radius.

Strong presence of population serving jobs and health and education jobs in the LGA

Northern Beaches LGA has a higher percentage of population serving jobs than when compared to Greater Sydney and the North District. Health and Education jobs have increased in the LGA in the decade 2006-2016. The LGA shows specialisation in both these industries when compared to Greater Sydney. While Knowledge Intensive industries are emerging (Information, Media and Telecommunications and Public. Admin and Safety), they are not as specialised as other industries in the LGA, most likely due to their preference to locate in larger commercial centres such as the CBD.

Social assistance, aged care, primary and secondary school teachers and workers are coming to Northern Beaches LGA to work

In relation to the aged care workers, this may increase as the population ages and Northern Beaches residents continue to be employed in other industries. This may be linked to the lack of affordable housing for key workers in the LGA.

High numbers of Knowledge Intensive workers leave the LGA for jobs

Approximately 16,659 residents leave the Northern Beaches LGA to travel to Sydney CBD for jobs in Knowledge Intensive industries. This is slightly more than the number of residents who remain working in Knowledge Intensive industries within the LGA, at about 15,675. Approximately 3,691 and 1,307 residents travel to North Sydney and Willoughby respectively to work in Knowledge Intensive industries. This could be jobs related to Banking, Finance and Investment, Legal and Insurance Services. There are also a notable number of residents travelling to Sydney CBD for jobs in Health and Education, Population Serving and Industrial industries at 2,013, 3,261 and 1,344 persons respectively.

Potential tension with Manly centre

The Manly catchment has exhibited the highest growth rate in employment between 2011-2016. Place of work data indicates the Manly catchment has a high share of professional related jobs. Policy directives for the centre encourage a diverse mix of uses in tourism, retail and entertainment components of the centre, as well as diversifying commercial activity, while the closure of Manly hospital will see a likely decline in health-related jobs. Over time, tourism to Manly has been variable. A clear vision and balancing competing industry land use into the future will be required.

Market trends highlight the desirability of Manly and Brookvale

Manly appears to have the highest average price per sqm ($797) for retail and commercial vacancies, while Frenchs Forest has the lowest. Industrial properties cost less per sqm when compared to retail and commercial properties, with Brookvale containing the highest average price ($294 per sqm), and Cromer-Collaroy having the lowest ($207 per sqm). This further reiterates the popularity of Manly as a centre, and the need to improve the desirability of Frenchs Forest as a centre for retail and commercial purposes; for Brookvale this highlights the desirability of the industrial zone and a need to manage the pressures and demand in this centre given the ‘retain and manage’ policy directives.

APPENDIX 3 - TRENDS AND DRIVERS

This chapter considers some trends and drivers that may impact future land use and economic activity centres in Northern Beaches LGA.

13.16 Retailing

Changing Profile of Supermarkets

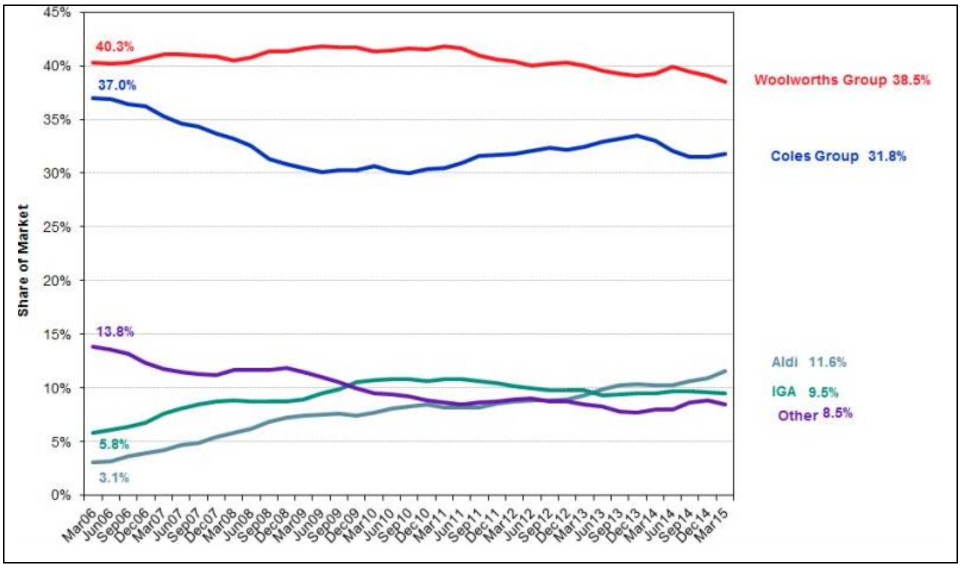
High street retail strips and enclosed shopping centres are often anchored by a supermarket that acts as the major tenant with smaller stores clustered around it. Anchor stores play a key role in the overall health of a shopping centre or district. Traditionally, Australia's groceries market has been dominated by Woolworths and Coles brands. Even today, together, they account for about 70 per cent of the market[39]. However, the past decade has seen the rise of two main competitors – IGA and Aldi.

Combined, IGA and Aldi account for approximately 21 per cent of market share. Aldi, the German discount supermarket chain, has tripled its market share (3.1 per cent to 11.6 per cent) in the ten years to 2015. The promotions focus on low-price items of 'home brands' has attracted a number of shoppers who may not have traditionally shopped at discount supermarkets. In NSW and Victoria, about 47 per cent of grocery buyers in each state now shop at Aldi in any given four-week period. Woolworths and Coles in contrast have seen their market share decrease[40].

Where supermarkets tend to service their surrounding population catchment, anecdotally Aldi appears to challenge this trend, with people often deliberately shopping at Aldi in search of a bargain even though it is not their closest supermarket.

[39] Roy Morgan Research 2015, 'The ALDI effect: Australia's changing supermarket scene' – 22 June 2015 http://www.roymorgan.com/findings/6297-aldi-effect-australias-changing-supermarket-scene-201506220132
[40] Roy Morgan Research 2015, 'The ALDI effect: Australia's changing supermarket scene' – 22 June 2015 http://www.roymorgan.com/findings/6297-aldi-effect-australias-changing-supermarket-scene-201506220132

FIGURE 143: MARKET SHARE OF LEADING SUPERMARKETS, 2006-2015



Source: Roy Morgan Research, 2015

In addition to the shifts in market share of supermarket operators, there are also shifts in Australian consumer lifestyles and food retailing preferences. Supermarket operators, regardless of who they are, need to adapt to the changing market.

The demand for organic produce is a small but growing sub-sector of food retailing. It is estimated that the total value of the organic market in Australia is $2.4 billion, an 8.8 per cent increase since 2012[41]. The growing awareness of how food is produced and the impact of chemicals on the environment has driven growth in organic produce. People are choosing vegetarian, vegan and gluten-free diets and are driving the specialised retail offer of organic, fresh and minimally processed foods. The Australian Organic Market Report 2018 states organic shoppers are widespread, buying at all ages, incomes and life stages. It is noted that households that have a total income of $90,000 or higher make up 45.1 per cent of organic shoppers. Households earning between $45-90k per year are 32.9 per cent and households earning less than $45k per year at 22 per cent of organic shopper numbers[42].

Supermarkets are noted as being the dominant purchasing pathway for organic grocery products, with Woolworth and Coles having the dominant share at over 65 per cent but they are under pressure. Aldi has grown its share of organic produce since 2018 alongside other non-supermarkets and independents like Costco increasing their share since 2016[43].

Another new trend that may gain momentum is the development of smaller format supermarkets that are tailored to the local market and offer a larger range of convenient, ready-to-go foods. Key reasons for the development of smaller supermarket stores is the lack of available land in urbanised areas as the population increases in density, higher rents, the arrival of global players in the Australia markets forcing store closures and rising inventory costs and wages requiring downsizing. Supermarket operators, however, see the smaller format as an opportunity to offer tailored products of convenience rather than focusing on a wide selection of goods, at a range of prices. They see customer habits have changed where Australians want faster, takeaway foods of high quality which fits with the smaller

[41] Australian Organic, 2018, Australian Organic Market Report, https://user-cprcmgz.cld.bz/Australian-Organic-Market-Report-2018, date accessed: 09/04/2019, p. 27
[42] Australian Organic, 2018, Australian Organic Market Report, https://user-cprcmgz.cld.bz/Australian-Organic-Market-Report-2018, date accessed: 09/04/2019, p. 47
[43] Australian Organic, 2018, Australian Organic Market Report, https://user-cprcmgz.cld.bz/Australian-Organic-Market-Report-2018, date accessed: 09/04/2019, p. 48

supermarket format[44]. For the supermarket giants, Coles and Woolworths, the new format is a way to compete with the independent retailers such as Harris Farm and IGA.

Convenience stores are struggling with the strong competition posed by the new supermarket formats. Operators are having to adjust product ranges and prices to provide value for money. Industry revenue is expected to fall -0.8 per cent annually from 2019 to 2024 [45].

It is worth noting that while supermarkets capture a significant proportion of food retailing, the role of non-supermarket specialty food stores, such as bakeries, grocers, and delicatessens, in meeting food retailing needs is not insignificant.

[44] Mitchell, S, 2018, 'Coles unveils first Coles Local convenience store format', Financial Review, https://www.afr.com/business/retail/coles-unveils-first-coles-local-convenience-store-format-20181111-h17rz5, date accessed: 10/04/2019; Grimmer, L & Mortimer, G, 2018, 'Honey I shrunk the store: why your local supermarket is getting smaller', https://theconversation.com/honey-i-shrunk-the-store-why-your-local-supermarket-is-getting-smaller-98246, date accessed: 10/04/2019; Hatch, P, 2018, 'Coles opens its own little shop as battle for customers goes small', https://www.smh.com.au/business/companies/coles-opens-its-own-little-shop-as-battle-for-customers-goes-small-20181113-p50foj.html, date accessed: 15/05/2019

[45] IBISWorld, 2019, 'Convenience Stores in Australia', www.ibisworld.com.au, p. 3

Case Study: Coles Local, Surrey Hills, Melbourne

In 2018, in the quiet, leafy suburb of Surrey Hills, east Melbourne, Coles unveiled its first small format store under the 'Coles Local' branding, catering to time-poor customers doing more frequent, smaller grocery shops during the week and are willing to pay for premium products.

The store is built inside an old printing plant and is half the size of a traditional supermarket at 1,200 sqm. It carries one third of the usual range of products (8,000 products) which is twice the number of products of Woolworths Metro stores. This allows customers to do a full grocery shop.

More than half the floorspace is allocated to fresh food, including chilled ready-to-eat meals. Packaged groceries are heavily tailored to the local demographic and includes premium, locally produced items such as honey, meats and bakery items; has Asian, vegetarian and vegan options; and offers 100 per cent Australian fruits, vegetables and seafood. The store is also experimenting with an in-house barista, ground-to-order peanut butter and a 'Foodie Hub' housed by an in-house chef offering recipes and advice.

Coles is planning to assess the success of the Surrey Hills site, although it already has several sites earmarked for similar ventures. Woolworths started its small format Metro stores five years ago and now has 33 stores.

Source: Google Image, 2019

Rise of Regional Shopping Centres

Historically, retailing has been viewed as a city centre or town centre activity, particularly for higher order retailing. However, regional suburban centres have emerged as the preferred destination for many consumers and preferred location for retailers which has often come at the expense of traditional local retail centres.

In recent years, some regional suburban centres, such as Bondi Junction, Chatswood and the Macquarie Centre have attracted large international retailers ahead of store development in the city centre. The trend of retail decentralisation is driven by a number of factors including:

- Growth of an affluent and mobile population in suburban areas
- Development of strong corporate chains with fewer ties to a locality and more willingness and need to move shops to areas of demand and opportunity
- Changes in the methods of selling which have seen a demand for larger stores and associated parking.

It has been noted that the popularity of regional shopping centres is being challenged with the rise of online retailing, emerging international brands, pop-up stores, general weak retail sales growth and smaller neighbourhood centres offering a range of conveniences. Repurposing these centres is seen as a requirement to gain back market share that includes changes in the retail mix that may include medical centres, gyms and the inclusion of entertainment and events[46].

Change in Retail Trading Hours

Retail trading hours have relaxed over the past twenty years where shops tend to open on both weekdays and weekends. They are also increasingly trading for longer during the day and into the evening. In part, retailers are reassessing their trading hours as operating hours are seen as outdated - failing to keep up with societal shifts, such as flexible working hours and single parent households that demand alternate shopping times, but also comes in response to the rise of online shopping and an attempt to gain a competitive angle[47].

Tenancies that have longer opening hours can also support retail services that operate 'after hours', such as cinemas and restaurants. This creates a symbiotic relationship and can help to promote and sustain the night-time economy in a precinct.

Fine Grain Spaces

'Fine grain' is a term used to describe small-scale spaces that provide a low-cost layer of diverse and specialised activities in a place[48]. Fine grain spaces can encourage greater community interaction, cultural and creative expression and promote more walkability and sociability in activities and through the fabric of the built environment[49].

In terms of retail, fine grain involves shop fronts at a human scale, often in the form of a main street or high street. A fine grain high street shopping experience offers a more unique retail experience to shopping centres with small local businesses and boutiques. Examples are often seen in villages in the Blue Mountains (for example Leura or Blackheath) or in the Southern Highlands (for example Bowral), both key visitor destinations.

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[46] Commercial Property Guide, 2019, 'Sub-regional shopping centres set course for survival', https://www.commercialpropertyguide.com.au/blog/investing/sub-regional-shopping-centres-set-course-for-survival-126, date accessed: 10/04/2019

[47] Inside Retail, 2014, 'Should retailers extend trading hours?', https://www.insideretail.com.au/news/retailers-extend-trading-hours-201407, date accessed: 09/04/2019

[48] City of Sydney, 2015, George Street 2020 – A public domain activation strategy, part 3, https://www.cityofsydney.nsw.gov.au/__data/assets/pdf_file/0010/308827/George-Street-2020-A-Public-Domain-Activation-Strategy_Part3.pdf, date accessed: 09/04/2019

[49] Greater Sydney Commission, 2017, Fine Grain People Places, https://issuu.com/roberts-day-global/docs/gsc_fin_-_fine_grain_people_places_, date accessed: 10/04/2019, p. 4

As shopfronts are often owned and rented individually along a high street, there is limited control on where certain shops and businesses set up. This contrasts with shopping centres, where centre mangers can direct the location of stores to create clusters, such as fashion floors and fresh food sections. The inability to control the clustering of businesses may limit the ability for collaboration, which in turn may impact on the shopping experience as a 'one-trip' experience. However, this lack of synergy may form part of the appeal of high street retailing with an eclectic mix of stores in proximity.

High street retailing has faced significant challenges in recent years. This is attributed to the rise of regional shopping centres, changes in consumer habits and online retailing. Fine grain retailing along high streets has, however, been adapting to combat these changes, changing from a convenience shopping role to a destination and an experience, as evident in the rise of cafés and cultural uses, such as art galleries and performance spaces that are not easily replicated in shopping centres and not available online.

Principles to successfully promote fine grain activities include having a variety of scales with small and large activities; proximity of shared activities; permeability and engagement with the street; and having spaces that are multifunctional and encourage shared use always of the day[50].

[50] Greater Sydney Commission, 2017, Fine Grain People Places, https://issuu.com/roberts-day-global/docs/gsc_fin_-_fine_grain_people_places_, date accessed: 10/04/2019, p. 20-21

Case Study: Springwood, Blue Mountains

The suburb of Springwood in the Blue Mountains is an example of a suburb that contains fine grain retail development. The fine grain nature of the suburb has been incorporated into the fabric of the built form by a range of different elements which include:

- A balanced mix of open space and built form elements
- A mix of uses including art galleries, cafes, restaurants and public spaces
- Smaller lot sizes which encourage a human scale streetscape
- Residential uses are setback from the core retail area which encourages active street frontages and retains a commercial mix.

Promoting and facilitating this through policy and urban design will underpin finer grain retail. Finer grain streetscapes promote planning on a human scale. The detailed streetscape encourages permeability and interest and makes it an attractive place for people to shop, relax and recreate.

Source: Google Maps 2019 & Blue Mountains Council 2018

Emergence of Café Culture, Food Centres and Experience Dining

Fuelled by Australia's strong coffee culture, the café and coffee shop industry has experienced moderate growth in the last five years. In 2018-19, the industry was estimated to be worth $9.8 billion where a growing number of speciality cafes and coffee shops have opened for business and have led to high industry competition, pushing down profitability[51]. Industry revenue is forecast to increase at an annualised 1.9 per cent over five years through to 2023-24 at a worth of $10.7 billion[52].

[51] IBISWorld, 2018, 'Cafes and coffee shops in Australia', www.ibisworld.com.au, p. 4
[52] IBISWorld, 2018, 'Cafes and coffee shops in Australia', www.ibisworld.com.au, p. 7

NAB notes food retailing has been one of the better performers in the retail sector, largely driven by a boom in breakfast and lunches at cafes and online ordering of take-way for dinner[53]. Artisan bakeries and patisseries have increasingly sought to re-position themselves as cafés, encouraged by the strong growth in recent times. It is anticipated restaurants will expand café-style operations as they compete with cafés for customers[54].

Cafés and restaurants currently account for approximately 14 per cent of retail sales volumes across Australia at $3.5 billion, up from $2.5 billion in 2009[55]. Consumers are expected to spend more on eating out in the next five years from 2018. Trends and drivers supporting growth of this industry include busier lifestyles requiring fast and convenient food and dining options; increased expenditure on recreation and leisure activities; and an appreciation for coffee culture and the lifestyle associated with it[56].

Outdoor dining in Sydney has remained popular, particularly given the conducive climate. This is witnessed in the presence of a number of local high street outdoor food retail options, including Church Street, Parramatta; Willoughby Road, Crows Nest; Crown Street, Surry Hills; and Haldon Street, Lakemba. The move towards outdoor dining and restaurant-defined retail strips requires a reconfiguration of footpaths and road alignment, a strong focus on urban amenity, including street trees, provision of furniture and pedestrian/diner safety, as well as supportive policies that enable these developments to take place.

For shopping centres and associated food courts, it has been noted they are now being refitted into high quality, contemporary dining precincts that refocus the food offering with some clustering cafes, restaurants and fresh food outlets. These can occur inside shopping centres but can also include outdoor components. Colliers states department stores are no longer the key drawcard for customers to shopping centres. The 'contemporary food courts' are new spaces to congregate rather than just transact and are increasingly used as the driver of footfall by shopping centre operators. Furthermore, with the rise in online retailing and home food delivery, retail landlords are also using this evolution of shopping centre food courts to draw back customers. Recent examples include Top Ryde Shopping Centre's Piazza Dining Precinct with outdoor sections, Westfield Chatswood's Hawker Lane and Westfield Hurstville with its new rooftop dining and entertainment precinct[57]. Colliers notes three design principles often used in these such developments include:

- Outdoor/alfresco: rooftop, high street, open-air, indoor/outdoor combinations appear vital to producing a successful product and add to existing nightlife in close surrounds.
- Green: relevant to the outdoor dining environment, consumers are responsive to plants, trees and earthy tones, extending the duration of patronage.
- Access: night-time accessibility is fundamental, with clear pathways, street frontages and easy access to parking facilities[58].

The Property Council of Australia has noted that the rise of UberEATS and Deliveroo and the popularity of ordering food-on-demand at home, is encouraging restauranteurs to set up 'dark kitchens'. This is where restauranteurs set up multi-kitchen sites, often in a low-grade retail space or repurposed basements, to cope with the demands of home delivery[59].

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[53] NAB, 2017, The Future of Retail: the trends reshaping retail and the future implications for the Australian marketplace', https://business.nab.com.au/wp-content/uploads/2017/09/The-future-of-retail-September-2017.pdf, date accessed: 09/04/2019
[54] IBISWorld, 2018, 'Cafes and coffee shops in Australia', www.ibisworld.com.au, p. 4
[55] Colliers, 2016, Back to the Future: light rail to spur CBD retail growth, Research and Forecast Report: First Half 2016, p. 10
[56] IBISWorld, 2018, 'Cafes and coffee shops in Australia', www.ibisworld.com.au, p. 5-7
[57] Colliers, 2016, Back to the Future: light rail to spur CBD retail growth, Research and Forecast Report: First Half 2016, p. 28
[58] Colliers, 2016, Back to the Future: light rail to spur CBD retail growth, Research and Forecast Report: First Half 2016, p. 28-9
[59] Property Council of Australia, 2017, 'Top five food retailing trends in 2018, https://www.propertycouncil.com.au/Web/Content/News/National/2017/Top_five_food_retailing_trends_in_2018.aspx, date accessed: 09/04/2019

In contrast, the Property Council also expects restaurants will have to start attracting diners back out of the comfort of their own homes. Eating out will become more of an experience, where the attraction is no longer just about the food but will also become a value-add opportunity for education, sustainability, growing, tasking, listening, learning, hands-on experiences, music and entertainment. As a result, they expect some tenancies will have larger and more expensive fitouts[60]. Examples of 'experience dining' include the Grounds of Alexandria which offers a café, bakery, retailing and garden located in a converted pie factory. Koskela Kitchen in Rosebery is one part of the greater Koskela complex that offers designer retailing, education and workshop classes and an art gallery space in a repurposed industrial warehouse site.

Case Study: The Spot, Randwick

The Spot in Randwick LGA, and is home to several bars, restaurants and cafes. The Spot also houses the Ritz Cinema which is a historic art deco cinema.

The Spot has high amenity as the streetscape is:

- Walkable
- Accessible to the Randwick strategic centre by active transport and accessible to Sydney CBD
- Well maintained
- Fine grained
- Landscaping and trees create a comfortable urban environment
- Attractive and has a range of outdoor dining places
- Park benches also provide people a place to relax
- Traffic calming devices and pedestrian crossing facilitate high pedestrian amenity.

Source: Domain, 2019

The Spot is an example of how place can be transformed through urban design principles such as landscaping, traffic calming interventions, the provision of street furniture and encourage an outdoor dining culture.

Rise of Online Retailing

Online retail currently makes up a small proportion of retail turnover in Australia where online spending has been estimated at about 6.4 per cent of total retail turnover. Despite these low levels, growth has been strong. Since 2013, it is estimated online retail turnover has grown 142 per cent[61]. NAB estimated that in the 12 months leading up to January 2019, Australians

[60] Property Council of Australia, 2017, 'Top five food retailing trends in 2018, https://www.propertycouncil.com.au/Web/Content/News/National/2017/Top_five_food_retailing_trends_in_2018.aspx, date accessed: 09/04/2019

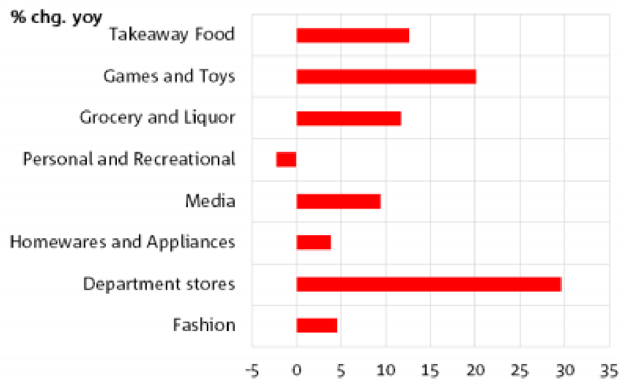
[61] Department of Industry, Innovation and Science, 2017, Inquiry into impacts on local businesses in Australia from global internet-based competition: Department of Industry, Innovation and Science submission, industry.gov.au, p. 9

spent approximately $28.88 billion on online retail which was the equivalent of about nine per cent of retail in the traditional 'brick and mortar' retail sector[62].

Reasons individuals choose to shop online include the reduced amount of time it takes to undertake purchases; it is easier to find the cheapest price for a good; and online shopping provides the flexibility to shop at convenient times[63].

Department and variety stores recorded the highest online retail sales at approximately 29.6 per cent year to year sales average, followed by games and toys (20.1 per cent) and takeaway food (12.7 per cent).

FIGURE 144: ONLINE RETAIL SALES BY INDUSTRY (YOY S.A.)



Source: NAB, Online Retail Sales Index, January 2019

The introduction of Amazon in Australia is expected to contribute to the growth of online shopping and further impact bricks and mortar retail. While the Department of Industry, Innovation and Science expects Australia's small and dispersed population will mean the impact of Amazon will take time to gain a significant market share, it is estimated it could reach two per cent of retail sales within five years of entering Australia. This compares to five per cent current market share in the US[64].

It has been noted in both domestic and international contexts that growth in online retailing has led to increased demand for industrial and logistics property. Colliers International expects the demand for industrial space in Australian due to growth in eCommerce will occur over the shore, medium and long term and have greater emphasis on supply chain efficiency and effectiveness[65]. To compete with Amazon, it is expected Australian online retailers will need to make investment in automation to offer comparable services given Amazon's sophisticated and efficient automation systems that improve warehousing, logistics and distribution[66].

For traditional 'bricks and mortar' retailers, to overcome the impact of online retailing and optimise centre competitiveness, landlords are providing increased floorspace for food, beverage, grocery and non-retail uses to align with strong customer trends towards dining out. Shopping centre are also exploring mixed-use options or change-of-use options where more value is extracted from the site by adding residential, commercial or hotels to surplus

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[62] 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/, date accessed: 28/03/2019

[63] CBRE, 2015, Asia Pacific Consumer Market: How we like to shop online, https://www.cbre.com/research-and-reports/apac-consumer-survey-how-we-like-to-shop-online.

[64] Department of Industry, Innovation and Science, 2017, Inquiry into impacts on local businesses in Australia from global internet-based competition, industry.gov.au, p. 10

[65] Colliers International, 2018, 'eCommerce is driving Australian Industrial Investment', https://www.colliers.com.au/news/2018/industrial-most-in-demand-property-asset-class-for-2018/, date accessed: 28/03/2019

[66] Department of Industry, Innovation and Science, 2017, Inquiry into impacts on local businesses in Australia from global internet-based competition, industry.gov.au, p. 11

land or air space above centres. Entertainment, events and 'experiences' are also becoming more important to develop the social aspect of retail, as millennials seeks a different shopping experience than previous generations[67].

For large retailers, it is predicted that Australia's trend of department store floorspace expansion and the existing footprint of these stores will decrease as market share is lost to online retailers. For small retailers, it is expected that leveraging local customer relationships and providing in-store services and advice will continue to make these retailing options relevant[68].

The impact of international retailing competition on employment is unclear. It is expected Amazon's arrival will put pressure on job growth in traditional retail, but this could be offset by employment growth in other areas, such as logistics and warehousing. In the US, it was estimated 51 thousand jobs were lost in the general retail sector between 2007 and 2016 but this was outweighed by growth in 355 thousand warehousing jobs, noting Amazon is also headquartered in the US which may add weight to the increase in job numbers in this industry[69].

Considerations for Northern Beaches: Growth of smaller format supermarkets in centres may be arise; Warringah Mall is likely to continue to be a centre of gravity as a regional shopping mall; fine grain retailing could set smaller Local Centres apart from larger Strategic Centres; the rise of online retailing means the value of industrial lands for logistics in Northern Beaches could become more apparent.

13.17 Industrial and Urban Services Lands

Changes in Freight Transportation

Part of the experience of online retailing is also an expectation that goods will be rapidly delivered to customers. A study by McKinsey & Company found approximately one quarter of consumers would pay a premium for same-day delivery[70]. With the growth in online retailing and e-commerce and raised expectations for speedy delivery, 'last mile' logistics has become a priority. In terms of land, this places an even higher value on logistics, industrial services and dispatch land uses in the right areas close to populations.

'Last mile' delivery is the final part of a product journey from warehouse to the customer doorstep and is often the most expensive and time-consuming part of the shipping process. In urban areas, traffic congestion is often one of the key issues affecting 'last mile' delivery. 'Last mile' delivery costs are about 53 per cent of the total cost of shipping. Additionally, customers have become less willing to pay delivery fees with the presence of some 'free shipping' options.

As a result, retailers and logistics companies are seeking new, technological solutions to improve the last leg of this process, and overcome geographical challenges, such as drones or crowdsourcing local delivery sources[71]. However, in the interim, the value of industrial,

[67] 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, dated accessed: 28/03/2019

[68] Department of Industry, Innovation and Science, 2017, Inquiry into impacts on local businesses in Australia from global internet-based competition, industry.gov.au, p. 12, 14.

[69] Department of Industry, Innovation and Science, 2017, Inquiry into impacts on local businesses in Australia from global internet-based competition, industry.gov.au, p. 18

[70] McKinsey & Company, 2016, 'How customer demands are reshaping last-mile delivery', https://www.mckinsey.com/industries/travel-transport-and-logistics/our-insights/how-customer-demands-are-reshaping-last-mile-delivery, date accessed: 28/03/2019

[71] Business Insider, 2018, 'The Challenges of Last Mile Logistics & Delivery Technology Solutions', https://www.businessinsider.com/last-mile-delivery-shipping-explained/?r=AU&IR=T, date accessed: 28/03/2019; Strategy + Business, 2018, 'Convenience is key in last-mile delivery around the world', https://www.strategy-business.com/article/Convenience-Is-Key-in-Last-Mile-Delivery-around-the-World?gko=bef84, dated accessed: 28/03/2019

logistics land and dispatch centres close to urban areas remains apparent and highly valuable for speed of delivery – particularly given land use is highly contested and land prices are high.

Advanced Manufacturing

Globally, manufacturing and the supply chains that support it are changing. While manufacturing covers a large spectrum of industries, services and products, increasingly complex and inter-connected changes are transforming these industries into what is collectively referred to as 'advanced manufacturing'.

The CSIRO defined advanced manufacturing as 'the set of technology-based offerings, systems and processes that will be used to transition the current manufacturing sector into one that is centred on adding value across entire supply chains'[72]. Advanced manufacturing is where industrial and knowledge sectors are more closely integrated and have close links to research and development.

Examples of advanced manufacturing include the use of sensors and data analytics not only during production but across the whole value chain; replacing workers for hazardous tasks with assistive smart robotics and automation; and proactive integration of advanced materials in the early design phase like biodegradability, energy efficiency and self-repairing.

Driving this change are five mega trends:

- Made to Measure – advances in technology and greater consumer expectations are causing a shift from mass production of goods to bespoke solutions.
- Service Expansion – manufacturers are expanding their role in the value chain from making 'widgets' to developing tightly integrated service-product bundles.
- Smart and Connected – advances in data capture and analytics are optimising operations across the manufacturing value chain and the factory floor.
- Sustainable Operations – resource scarcity and increasingly valued environmental and social credentials are encouraging manufacturers to look for more efficient and sustainable processes and operating models.
- Supply Chain Transformations – specialisation is promoting collaboration in some markets while technological advancements are enabling the vertical integration of others[73].

Success in fostering an advanced manufacturing economy is contingent upon a number of wider socio-economic and governance factors. The CSIRO identified several comparative advantages and disadvantages presented by the Australian economy in attracting or developing an advanced manufacturing sector.

TABLE 169: AUSTRALIA'S COMPETITIVE LANDSCAPE

Comparative Advantages	Comparative Disadvantages
Education and research skills	High labour costs
Quality and standards	Geographical remoteness
Small and medium-sized enterprises	Small and dispersed domestic market
Access to Asia	Risk averse culture
Early adopters	Segregated national agenda
Political and economic stability	Commercialisation
Natural resources	Staff training and development

[72] CSIRO, 2016, Advanced manufacturing: roadmap for unlocking future growth opportunities for Australia, p. 6
[73] CSIRO, 2016, Advanced manufacturing: roadmap for unlocking future growth opportunities for Australia, p. 11

Intellectual property laws	Digital infrastructure
	Public perception
	Quality and quantity of leaders

Source: CSIRO, Advanced manufacturing: roadmap for unlocking future growth opportunities for Australia, p. 16-20

The Committee for Sydney notes cities are at the heart of this evolution in manufacturing and Sydney is well placed to lead the manufacturing revolution due to recent investment in infrastructure, the fact our universities are heavily invested in progressing the innovation agenda, and Sydney is a hub for tech start-up and fintech capital with the capacity for digital innovation and technology and the creative and design talent that underpins it[74].

Case Study: Industrial Lands & the Night-Time Economy

One Drop Brewing Co, South Sydney

One Drop Brewing Co is South Sydney's first microbrewery which was established in 2019. The Brewery is an example of what type of uses are emerging and adjoining industrial precincts. Food trucks come to the site every day of the week. The Brewery is open to the public five days a week 12pm to 8pm/10pm.

The philosophy behind One Drop Brewing Co is to support community, humanity, one love, free thinking and unique creative self-expression, all of which inspires the beer, the food, the tunes and atmosphere of the Brewery.

Source: One Drop Brewery Co, https://www.onedropbrewingco.com.au/, 2019

Metropolitan Industrial Land Policy

Both the Greater Sydney Region Plan and the North District Plan reference the importance of industrial lands in their policy. Industrial lands should be recognised not for the number of jobs they offer but the important urban services role it plays for the city.

[74] Committee for Sydney, 2017, Manufacturing 4.0 Cracking the code for Western Sydney, http://www.sydney.org.au/wp-content/uploads/2015/10/Manufacturing-4.0.pdf, date accessed: 12/04/2019, p. 4

Falling within the North District, Northern Beaches industrially zoned land has been designated as 'Retain and Manage', to arrest the gradual erosion of industrial land that has taken place over the past twenty years in Greater Sydney. Retain and manage is where all existing industrial and urban services land should be safe guarded from development pressure, particularly from residential and mixed-use land uses.

This policy direction sets a clear position that Northern Beaches industrial lands have a viable and, indeed, critical role to play in Greater Sydney's economy in the future. By providing certainty through policy, this enables Council and industries to plan for growth without the pressure of rezoning and the accompanying land speculation.

A study completed by SGS in 2018 for the Greater Sydney Commission about employment lands identified that there is now a mixture of businesses occurring in industrial zones with IN1 having the largest count of a mixture of businesses; IN2 having the highest density of a mixture of businesses and IN3 showing the greatest variety of businesses when compared to B5, B6, and B7.

As these land use zones are at risk of becoming a 'catch-all' for uses, a challenge will be to ensure there is a balance of businesses locating in these sites fulfil the critical role that industrial and urban services lands provide for local communities and are not overcome by 'creative-led gentrification'[75].

Considerations for Northern Beaches: Metropolitan Industrial Lands Policy, changes in freight transportation and the importance of 'last mile' delivery and the opportunities that are opening up with the transition to advanced manufacturing production reiterate the value, importance and opportunities that could arise from the industrial and urban services lands in Northern Beaches LGA.

13.18 Night-Time Economy

A highly contested issue in Sydney in recent years, where it is argued the introduction of lock-out laws in 2014 has impacted the economic strength and vibrancy of the 'after hours' hospitality and music industry in the city.

For Manly, there has been tension where some businesses believe they are losing money due to lock-out laws, but authorities believe the isolated geography in addition to a lack of after-hours public transport and a culture of binge drinking means the location is actually conducive to violence and therefore, lock-out laws should remain enforced[76].

As shown in Figure 145, core NTE establishments[77] fell between 2015 and 2016 and then increased post-2016. In contrast, Non-Core NTE activities[78] increased between 2015 and 2016 and continued to grow as 2016 progressed. The total economy of the Northern Beaches has exhibited growth over this period, yet Core NTE establishment fell, as shown in Figure 146. This suggests venues related to food, drink and entertainment may have been affected in the immediate years once the 2014 lock-out laws were introduced.

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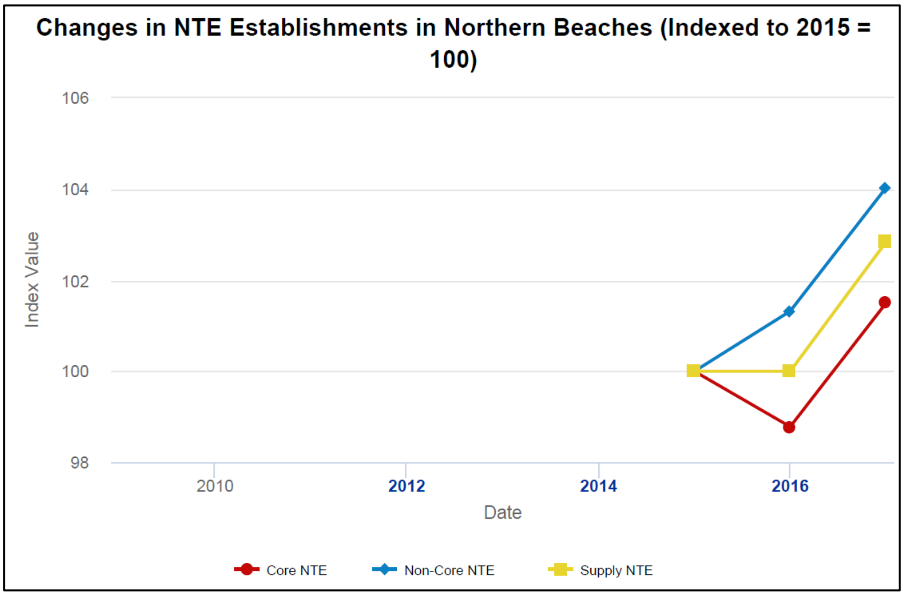
[75] GSC, 2018, Metropolis That Works Paper, p. 24

[76] ABC News, March 2008, Manly pubs urged to keep lockout, https://www.abc.net.au/news/2008-03-28/manly-pubs-urged-to-keep-lockout/2385392, dated accessed: 03/06/2019

[77] Core NTE denotes activities in three key sectors of food, drink and entertainment which are access by the public between 6pm and 6am.

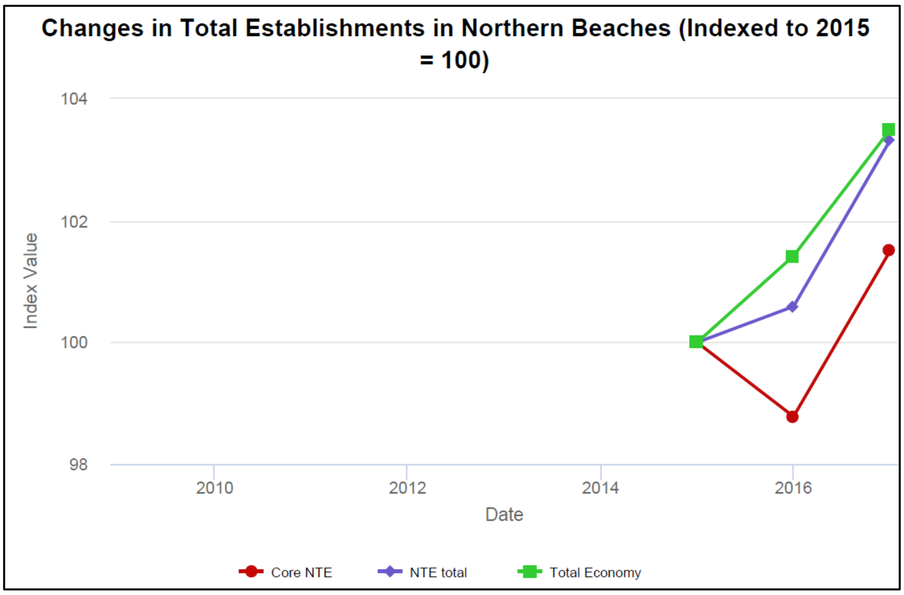
[78] Non-Core NTE activities includes those which operate in the evening and night-time to a greater or lesser degree such as retail trading (except liquor), hotels and guest houses

FIGURE 145: CHANGES IN NIGHT-TIME ECONOMY ESTABLISHMENTS FOR NORTHERN BEACHES



Source: Northern Beaches Council, 2019

FIGURE 146: CHANGES IN TOTAL ESTABLISHEMENT FOR NORTHERN BEACHES



Source: Northern Beaches Council, 2019

The value of the night-time economy in Greater Sydney is estimated to be over $27.2 billion per annum, employing about 234,000 people and with over 180 night-time economy establishments per sq km in the Eastern Harbour City. The food sector contributed $15.7 billion, entertainment sector contributed $7.1 billion and the drinks sectors was valued as $4.4 billion.

In the United Kingdom, the night-time economy makes up six per cent of the economy, whereas in Australia it makes up 3.8 per cent[79].

Deloitte argues it is reductive to simply focus on pubs, clubs and a drinking culture for the urban, young as all that makes up Sydney's night-time economy. A vibrant night-time economy should be seen as a broader range of activities that can include 24-hour gyms, late

[79] Deloitte, 2019, Imagine Sydney: Play, p. 29, 33, 34

night supermarkets, other late-night shopping options, late night museum and gallery openings, food festivals, as well as the obvious options of bars, restaurants, nightclubs, theatre and performances and sporting events. It would include a range of activities that appeal to all age groups, both locals and visitors. All of these activities then must be underpinned by extended hours of public transport.

Case Study: Governance & the Night-Time Economy, Amsterdam

The concept of the Night Mayor originated in Amsterdam in 2014. Creativity has been a key developmental element. A central operating principle was that the night was seen as a meeting point for creative talent - where like-minded individuals could find each other, creative talent could develop and blooms.

Achieving a vibrant nightlife is placed within industrial, government and spatial structures. The Night Mayor Structure is based around 20 positions including a board of directors, an advisory board and the Night Mayor board with backgrounds in nightclubs, festival, culture and diversity and safety legislation governance.

The Night Mayor position is funded by government, industries and self-raised monies. The role is to be a point of liaison that also spots trends, connects stakeholders, sets agendas and stimulates subcultures.

Source: Music Victoria.com.au

The potential value of Greater Sydney's night-time economy is thought to be around $43.3 billion, approximately six per cent of Australia's economy[80].

Some aspects to consider in order to improve a night-time economy include:

- Increasing business potential – Aussie NightMarkets in Western Sydney is a moving night market of food and shopping stalls that operates from 5pm to midnight five or six nights a week. Created by a group of entrepreneurs, in 2017 they were attracting about 12,000 visitors.
- Creating a platform for artistic creation and fostering a sense of identity for a region – Parramatta Lanes has become an annual food and cultural festival that supports multiculturalism and local artistic expression.
- Sustaining visitor growth and cultural tourism – by packaging cultural events with tourism. For example, Vivid Sydney travel packages are sold to tourists, including international tourists.
- Creating economic opportunity – Eastwood has grown its night-time economy with development of the Eastwood Night Market and the Taiwan Night Market, suited in a

[80] Deloitte, 2019, Imagine Sydney: Play, p. 34

safe and vibrant pedestrianised town centre and include food, market retail and gaming areas, kids playground and outdoor performances[81].

- Consideration of local features and attributes – does the area identified for night-time economy development have additional drawcard features beyond simply the tenancy mix? Attributes could include views, a promenade, ability for kids to play somewhere in sight, dining outdoors or ample parking. Attributes should align with the size of the market and generate frequent engagement with the site and a sense of energy.
- Understand the population - where young families may have different preferences to university students and Millennials.
- Consider the practicality of the activity – the precinct for the night-time economy must be easily accessible, preferably have comfortable and passive surveillance features such as wider footpaths, pedestrianised malls or a promenade past outdoor dining, as well as visible security camera, high levels of street lighting and parking lighting.
- Providing a critical mass – where floorspace includes retail, leisure and entertainment, rather than an emphasis on food catering[82].

Case Study: Laneways & Potts Point, Sydney

In 2013, the City of Sydney collaborated with Potts Point Partnership to develop a one-year trial that granted an additional metre of outdoor dining spaces for cafes and restaurants in Llankelly Place. The Council worked alongside local businesses and residents to create a village feel and improve the sense of community in the laneway through the inclusion of better lighting, street market, public art and live jazz.

The trial was a success with more people visiting the area, new restaurants, increased staff hours for the existing restaurants and a reduction in the number of vacant shops. In 2018, City of Sydney considered extending the trial to other areas.

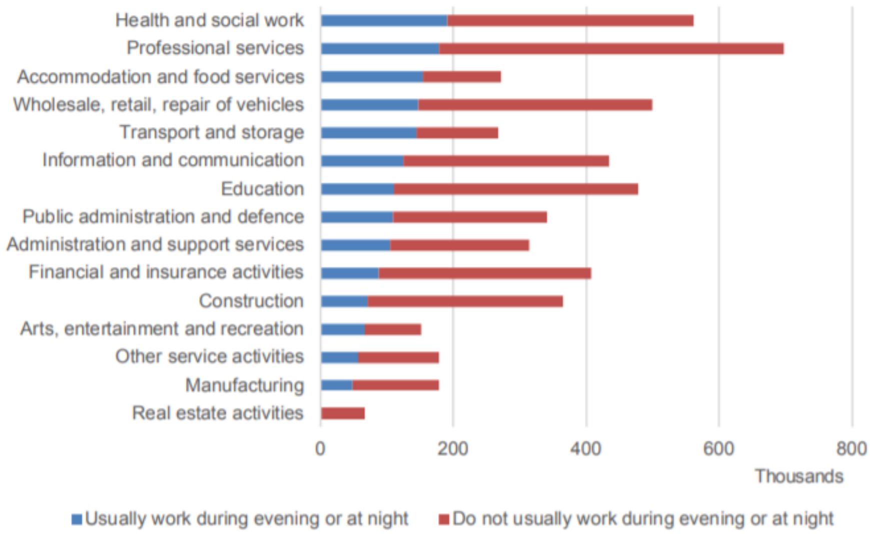
Source: Google Image 2019, Councillor Jenny Green.wordpress.com

Dr Rob Shaw, a geography lecturer at the University of Newcastle in the United Kingdom, also writes that it must be recognised that the night-time economy of a city is broader in the sense of being more than just entertainment and activities. The night-time economy has a practical and functional layer associated to it where people also work to 'reset' the city to make it inhabitable for daytime city functions. The night-time economy is also where workers clean the streets, conduct road works, organise distribution and logistics, or complete night-time shift work in places like hospitals.

[81] Deloitte, 2019, Imagine Sydney: Play, p. 35
[82] B&P, 2016, Beyond bars: 5 critical success factors for a booming night time economy, https://www.brainandpoulter.com.au/food-trends/5-critical-success-factors-for-a-booming-night-time-economy/, date accessed: 10/04/2019
*The NTE components that made up this calculation were not clearly defined in the report but may have included a broader consideration than bars, clubs and restaurants.

The trend in major European cities, such as London, Amsterdam and Paris, has been to employ night mayors. Shaw believe this is a positive move, but actions can be limited and focused towards improving the pub, bar and club scene. For example, in London, certain lines of the Tube network now run 24-hours a day which has been good for those going out and coming home from entertainment districts and for the people who work and service the entertainment districts. Yet, the Tube service actually only supports 20-25 per cent of people who work at night and usually not those working in healthcare, distribution or logistics. Figure 147 shows the variety of industries that evening and night-time employees work within London. Facilities and services, Shaw concludes, are needed that service broader range of activities that people do at night[83].

FIGURE 147: WORKERS IN MAJOR INDUSTRY GROUPS IN LONDON BY USUAL WORK PATTERN, 2017



Source: Mayor of London, https://www.london.gov.uk/sites/default/files/london_at_night_-_executive_report_-_final.pdf, date accessed: 11/04/2019

Considerations for Northern Beaches: There are two sides to the night-time economy for Northern Beaches to consider. On the social side, night-time activities need to cater to all demographics, and for a centre like Manly, to locals and visitors. The night-time economy in French Forest, Dee Why, Mona Vale and smaller Local Centres would also have to be developed. With the development of the Frenchs Forest health and education precinct, actions for the night-time economy would also have consider the more practical component – assisting the movements and safety of shift workers.

13.19 CoWorking Spaces

The phenomenon of coworking originated in 2005 in San Francisco and representing a 'third way' of working that was between the traditional format of an office workplace/community environments and the freelance/independent mode of work that was more isolated and tended to be homebased. The 'third way' was the practice of working individually but in a shared environment[84].

Coworking spaces are shared workplaces that are used by professionals working in different knowledge related industries, often freelance and self-employed workers. Physically, these

[83] Shaw, R, 2018, 'Newcastle at Night', University of Newcastle, https://www.ncl.ac.uk/who-we-are/vision/ncl-at-night/?utm_source=fb&utm_medium=social&utm_campaign=vision&utm_term=link&utm_content=newcastle-at-night, date accessed: 11/04/2019

[84] Gandini, A, 2015, ' The Rise of Coworking Spaces: A Literature Review', http://www.ephemerajournal.org/sites/default/files/pdfs/contribution/15-1gandini.pdf, date accessed: 15/05/2019

coworking spaces are rented office facilities that can include a desk, wifi connection, common areas, as well as a range of other amenities like printers, private phone booths, 24/7 access, front desk services, mail and package handling and professional and social events. Rental options vary and can include a standalone office for a team, a hot desk in an open space or a permanent desk in a shared office[85].

Case Study: Commune, Erskineville and Waterloo

Commune Erskineville is a re-purposed warehouse site located in the suburban backstreets off the Princes Highway. Commune provides the opportunity for people to rent out a communal desk space either on a full-time basis for $155 per week or part time basis for $100 per week. Spaces can be rented out for $25 a day on a casual basis.

Commune Waterloo is a space is divided into a number of different areas that can be hired for small to large events of 1000 people. It includes studio spaces for use by photographers and artists. Creativity is supported and events that are held at Commune including regular yoga and dancehall by donation. Commune aims to foster collaboration, creative experiences and have a positive impact on the local community.

Source: Commune Co-Working, 2016

85 WeWork, https://www.wework.com/workspace, date accessed: 15/05/2019

A European study completed in 2018 indicated the top five motivations for using a coworking space were:

- I was looking for a workplace outside my home
- Vibrant and creative atmosphere in the coworking space
- Affordable accommodation
- Social interaction with co-workers
- The opportunity to network with co-workers.

Important attributes for the coworking space as identified by users, in order of importance, were:

- Accessibility
- Atmosphere and interior aesthetics
- Layout of the space
- Type of lease contract
- Diversity of tenant
- Reception and hospitality
- Events
- Diversity in supply spaces[86].

Coworking spaces are seen to foster collaboration – one of the key elements required to drive innovation in business practice – with people working across firms and spreading ideas.

In recent years there has been an increase in the number of coworking spaces in Australia. In 2017, a total of 300 coworking spaces were counted, this was up from 60 spaces in 2013. Coworking spaces attracted mainly professional service workers and knowledge-based workers[87].

Technological improvements have provided an opportunity for people to engage in 'footloose' jobs. The defining characteristic of a footloose job is that they are not required for commercial purposes to be in a specific location. A recent study by SGS Economics & Planning found that the proportion of footloose jobs was increasing. Footloose jobs provide individuals with the opportunity to work location independent[88]. Research by Reichenberger (2018) suggests that digital nomads are on the rise worldwide as footloose jobs allow individuals to engage in professional and spatial freedom through international travel[89]. Overall, coworking spaces seed collaboration, creativity and present an opportunity to support the rise of the 'digital nomad', who can locate in high amenity locations.

Con Artist is a New York based coworking art space. The space is mixed use and provides a place for artists to work, create, hold events, and engage in community events.[90]. Weekly night-time events such as Life Drawing runs from 7pm-10pm and provides a community and creative space for people to meet and draw. Such a space can be used to support and facilitate creativity and to grow innovation within the community.

Considerations for Northern Beaches: Coworking spaces have grown in popularity in recent years. The relevance of these spaces to the local population will have to be investigated more closely through business surveys to determine whether the local population has need of these spaces, and if so, what particular format would work best to support greater productivity.

[86] Weijs-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, date accessed: 15/05/2019, pp. 542-3.

[87] Mahlberg, T 2017, 'Australian coworking spaces cater to a more diverse crowd than just young tech entrepreneurs', date accessed 15/04/2019.

[88] SGS Economics and Planning, 2016, 'Macro-economic demographic factors shaping jobs growth', date accessed 24/04/2019

[89] Reichenberger, 2018, 'Digital nomads – a quest for holistic freedom in work and leisure', https://www-tandfonline-com.ezproxy1.library.usyd.edu.au/doi/pdf/10.1080/11745398.2017.1358098?needAccess=true, date accessed 24/04/19

[90] Con Artist, 2019, 'About Con Artist', date accessed 23/04/2019, https://conartistnyc.com/pages/about.php

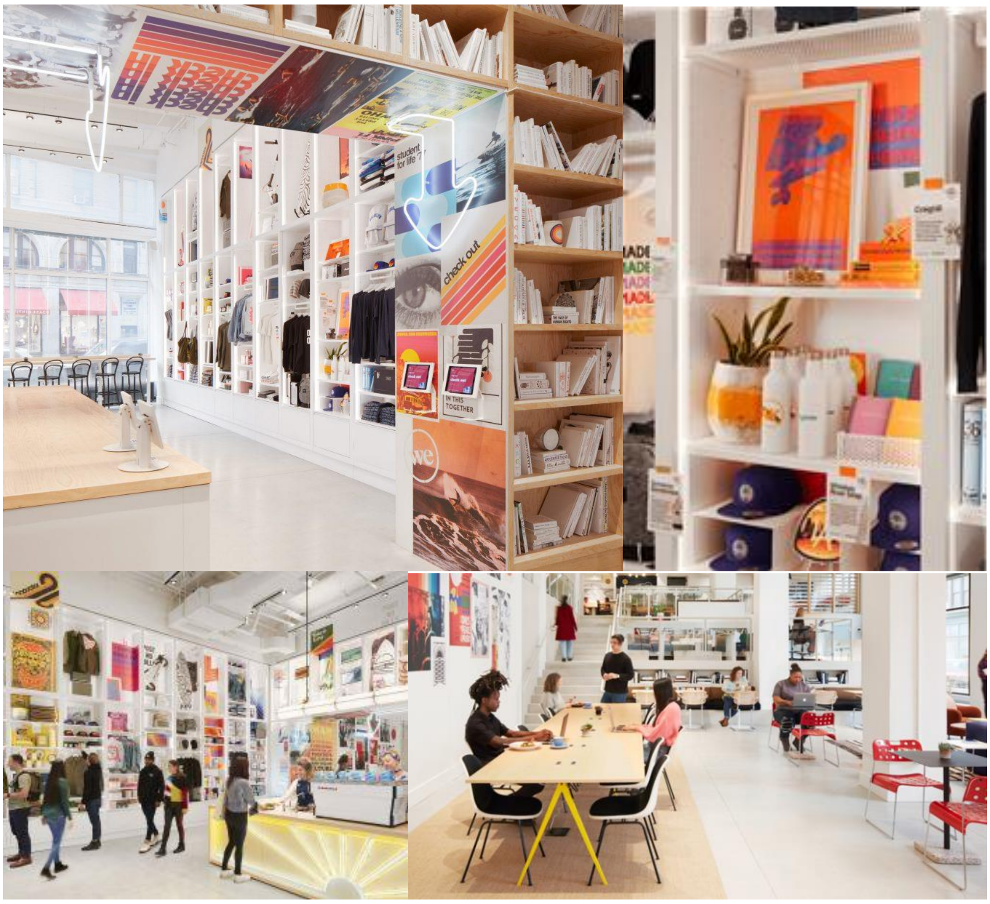
Case Study: the WeCompany evolution, New York City

WeWork is an American company that started in New York City in 2010. The primary concept for the company was to offer coworking spaces for entrepreneurs with a 'green' and sustainable focus. By January 2019, WeWork had expanded to 100 cities around the world with 425 locations. The mission of the company has since transitioned to focus on the concept of 'community' as the future of work.

With the focus on building community, WeWork has again evolved and rebranded under the banner of the WeCompany. Coworking spaces and the WeWork offering remains a primary aspect of the company but now also includes the WeLive concept (coliving), WeGrow (a private elementary school in NYC where young students receive lessons from WeWork employees and clients) and now Made by We.

In 2019, on Broadway in the Flatiron District of NYC, Made By We opened. On the groundfloor is a retail-café-coworking space where members of the public can sit and have a coffee, reserve a desk and also purchase gift products made by WeWork members. Some of the WeWork offices also sell member products, by the Broadway location is the first to open its doors to the public.

Made By We's 96 desks are rentable for at least 30 minutes, starting at US$6 and are reservable online.



Source: Google Image 2019, www.fastcompany.com, www.wework.com

13.20 An Ageing Population

In 1991, there were approximately 700,000 people aged 65 years and over in NSW. The NSW Government estimates by 2031 about 20 per cent of the NSW population, or 1.8 million people, will be aged over 65 years. Alongside an ageing population, population increase in the 15 to 64-year range will slow in the next few decades due to lower fertility rates[91].

The *NSW Ageing Strategy 2016-2020* highlights the need for a-whole-of-community response to the ageing population phenomenon, where change and preparation is required throughout government, the private sector, non-for-profit organisations, communities and individuals.

In relation to economic centres, actions to assist the needs of an ageing population and supporting greater health, wellbeing and quality of life and reduce isolation and loneliness, would be centred on two aspects:

- Creating employment opportunities that support their financial independence later in life.
- Ensuring economic centres cater to their shopping, medical care, social services, recreation and activities needs, and that the built environment, infrastructure and transport services to the economic centres supports their mobility needs.

The NSW Government notes older people can contribute to the economy and society as paid full-time or part-time workers, volunteers, and students in further education. They also provide support to family members and others as carers. They can influence the economy as consumers where their demands for services can create new markets and expand existing ones[92].

The World Health Organisation has identified a checklist of eight domains that should be addressed within a city to ensure it is 'age-friendly', as related to Figure 148. In relation the economic activity centres and employment, this could include civic participation and employment, outdoor spaces and building and transportation [to the economic activity centre].

For The Hague, The Netherland and Krakow, Poland this has included some of the following measures:

- Civic Participation and Employment: In the Hague there is a baking programme for older people, where the baked products are sold by volunteers and the money is used for leisurely activities and other programmes.
- Transportation: In the Hague bicycle lanes are well maintained and are being widened, there is free high-frequency transport for older people, delivery services from pharmacies to homes, voluntary taxi services for access to economic centre activities such as seeing the doctor or attending church and there is free rental of mobility scooters. In Krakow, free transportation for seniors aged 70 and over has been in place for a long time, and there are agreements with taxi companies.
- Outdoor spaces and building: In the Hague, green spaces are well maintained to encourage older persons to use the areas, ATMs are user-friendly. In Krakow, there has been more effort to create green spaces with benches and outdoors gyms that can be used by all ages.

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[91] NSW Government, 2016, NSW Ageing Strategy 2016-2020: a whole of government strategy and a whole of community approach, p. 12; NSW Office of Local Government, https://www.olg.nsw.gov.au/councils/integrated-planning-and-reporting/councils-planning-for-an-ageing-population/why-plan-ageing-population, date accessed: 24/05/2019

[92] NSW Government, 2016, NSW Ageing Strategy 2016-2020: a whole of government strategy and a whole of community approach, p. 14

FIGURE 148: EIGHT DOMAINS OF AN AGE FRIENDLY CITY

Source: Van Hoof, 2018

Case Study: Creating Age-Friendly Cities

City of Monash, VIC

In 2016, the City of Monash was declared an 'Age Friendly City' by the World Health Organisation after Council and older residents worked for two years to develop the long-term Age Friendly Monash Plan.

Age Friendly Cities are where older people can live safely, maintain good health and be active in social activities.

Some of the economic activity actions from the Plan include:

- Improving and increasing the number of 'places to rest' in public places
- Review Council volunteer opportunities and work with key stakeholders to identify opportunities for volunteers to support community activities
- Promote government economic incentives for employing seniors to local employers
- Encourage businesses in Monash to embrace economic opportunities created by an ageing population through promotion of age friendly practices.

City of Melville, WA

The City of Melville worked with one of the biggest shopping centres in the LGA, Garden City, to become more age-friendly and accessible for older people in the future as the shopping centre doubled in size over the course of a five-year period.

Some of the aims of the project included:

- Encourage local businesses to implement age-friendly accessible initiatives
- Raise awareness among the business community to the requirements and benefits of becoming more age-friendly and accessible
- Support businesses to have access to free basic training and support around dementia.

Source: City of Monash, https://www.monash.vic.gov.au/Services/Older-Adults/Age-Friendly-Monash, date accessed: 26/05/2019; World Health Organisation, https://extranet.who.int/agefriendlyworld/afp/age-friendly-garden-city-shopping-centre/, date accessed: 26/05/2019

Case Study: the future of the Health Care and Social Assistance industry and its role in Northern Beaches LGA

The global trend of the shift towards older population has seen the rise of the Health Care and Social Assistance industry. As older people generally require more health services than younger people, there will be more demand on Health Care and Social Assistance services and an increase of health expenditure.

Health Care and Social Assistance industry is the largest employment industry in Australia (13.4 per cent of total employment), and projections indicate that Health Care and Social Assistance jobs will grow by a further 14.9 per cent over the next four years. Large jobs growth has been observed in Hospitals, Residential Care Services, Other Social Assistance Services and Allied Health Services.

The Northern Beaches Hospital delivered by the NSW Government in 2018 not only provides essential medical services to patients, particularly those in the Northern District, it is also a major job hub for people working in the Health Care and Social Assistance industry.

Like many other industries, the Health Care and Social Assistance industry will enter a period of rapid change according to the Economist. The Economist noted that innovation trends in healthcare point to a future where health is monitored constantly, and on-demand services are provided outside of hospitals. The Internet of Things (IOT) technology could enable doctors and allied health professionals to monitor patients' health statues and prompt individuals to live a healthy lifestyle. On-demand services and the application of IOT technology will drive further growth in Health Care and Social Assistance jobs. Northern Beaches LGA is well positioned to leverage from this growth, as there were many residents who studied Nursing (4,892 persons) and Human Welfare Studies and Services (2,985 persons). A smaller proportion of residents studied other Health fields such as Rehabilitation Therapy, Medical Studies, Dental Studies, Behavioural Science and others. Overall, 9.19 per cent of residents reported Health as their field of study and 13.54 per cent reported Society and Culture (includes Social Work and Psychology) as their field of study.

Source: NSW Health Infrastructure, https://www.hinfra.health.nsw.gov.au/our-projects/project-search/northern-beaches-hospital; Australian Government, Department of Employment, Skills, Small and Family Business 2018, https://www.employment.gov.au/newsroom/health-care-and-social-assistance-jobs-rise, date accessed: 03/07/2019

Considerations for Northern Beaches: The Northern Beaches has a significant ageing population. Design and access to economic centres in the LGA will have to consider their needs. Socially, businesses in these centres and the activities offered will have to cater to their abilities and interests to ensure they continue to be active and engage members of the community. With the rise in this population, the need for allied and social assistance services may increase within the LGA. Determining how the Frenchs Forest health and education precinct can assist this increase will be beneficial.

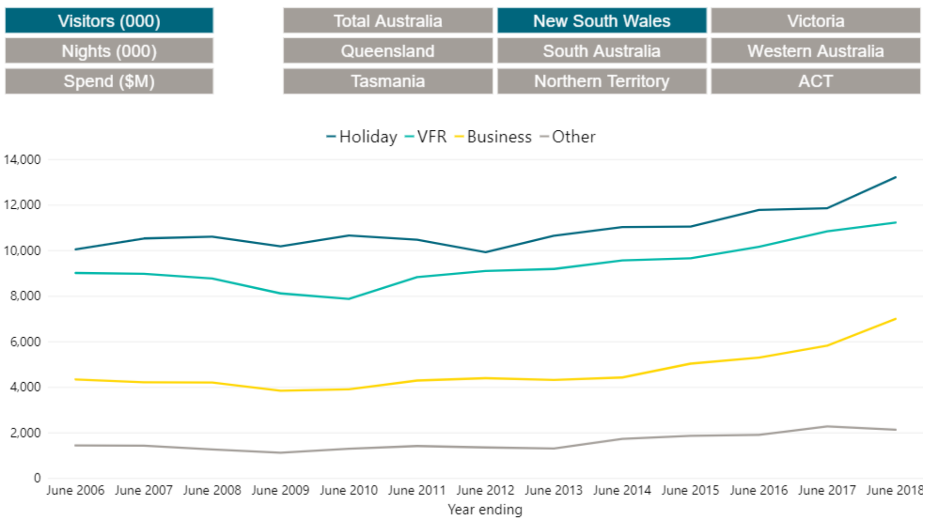
13.21 Visitor Economy

Tourism plays an important role in the Australian economy. The tourism economy accounts for 4.7 per cent of Australia's GDP and provides significant benefits and advantages to business. Greater Sydney welcomes 3.75 million international visitors who spend $9.03 billion a year[93].

In 2017, 8.8 million international tourists visited Australia. Of these 8.8 million people the highest proportion of visitors came from China, this was followed by New Zealand, the United States, the United Kingdom, Japan and Singapore[94]. In Australia, the most popular place for holiday makers was Sydney. The Sydney Opera House is ranked number one on the list of top attractions in Australia. Second, is the Great Barrier Reef, this is followed by Uluru[95]. The Sydney Harbour Bridge is ranked fourth, followed by the Blue Mountains. This suggests that the Greater Sydney area boasts some of the most internationally recognised tourism attractions in Australia[96].

According to Tourism Research Australia, domestic overnight tourism for holiday, visiting friends and relatives and business have generally increased in recent years.

FIGURE 149: DOMESTIC OVERNIGHT TOURISM TRENDS

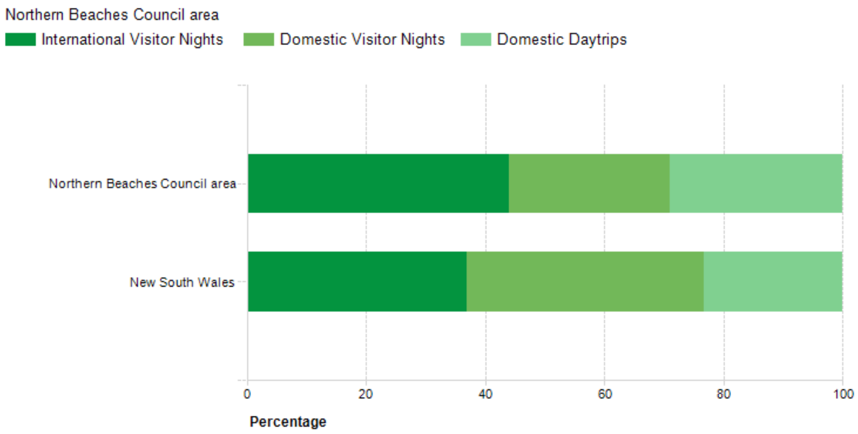


Source: Tourism Research Australia, 2019

In 2017/18, there were 2,464,956 international visitor nights and 1,522,023 domestic visitor nights in the Northern Beaches. This represented approximately 2.6 per cent of total international visitors nights and 1.5 per cent of domestic visitor nights in NSW. As referred to in section 3.3, in 2017/18, it was estimated that Northern Beaches LGA drew more international visitor nights and domestic day trips than NSW combined. Visitation to Northern Beaches LGA has been variable overtime, however since 2015, it has generally increased to between 5,800,000 to 6,000,000 when accounting for international and domestic visitor nights and domestic daytrips.

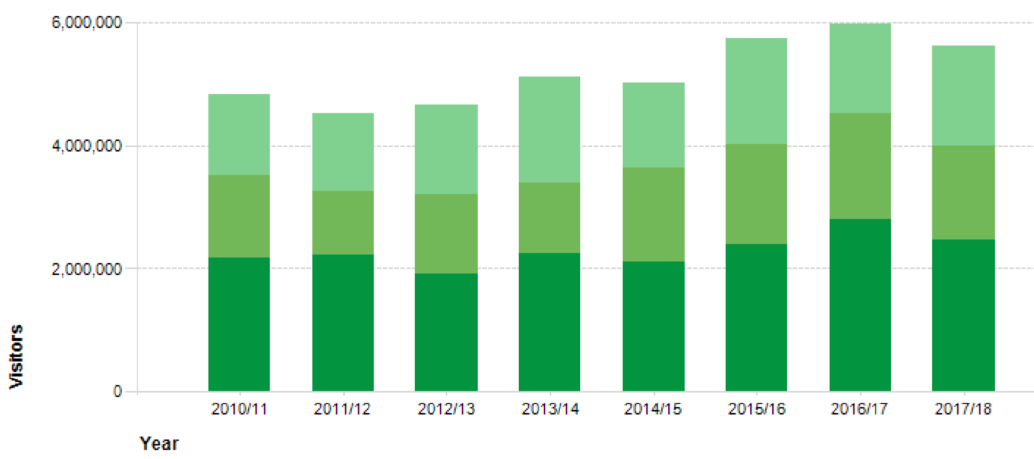
[93] Greater Sydney Commission, 2018, https://greater.sydney/metropolis-of-three-cities/productivity/jobs-and-skills-city/economic-sectors-are-targeted-success, date accessed: 25/05/2019
[94] Tourism Research Australia, 2010, https://www.tra.gov.au/International/International-tourism-results/overview date accessed 16/04/19
[2] Planetware, 2019,https://www.planetware.com/tourist-attractions/australia-aus.htm, date accessed: 16/04/2019
[96] Tourism Research Australia 2013–14 Survey Results, news. com.au, www.news.com.au/travel/travelupdates/sydney-named-australias-top-tourist-destination/ news-story/f6379d446da7d50ebc4506bed14c7bbd, date accessed: 9/04/2019

FIGURE 150: NORTHERN BEACHES LGA, BREAKDOWN OF VISITOR NIGHTS 2017/18



Source: Economy ID, https://economy.id.com.au/northern-beaches/tourism-visitor-summary, date accessed: 04/06/2019

FIGURE 151: NORTHERN BEACHES LGA, TIME SERIES – TOURISM NIGHTS

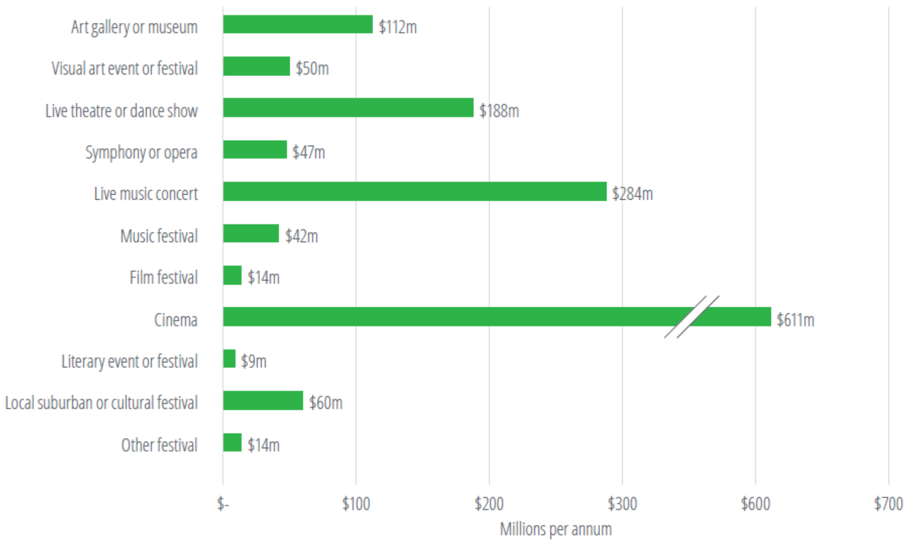


Source: Economy ID, https://economy.id.com.au/northern-beaches/tourism-visitor-summary, date accessed: 04/06/2019

Arts and Culture Based Tourism

A study by Deloitte Access Economics identified the economic visitation value for the arts and cultural scene in Sydney. The study found the highest value was attributed to cinema, ($611m) followed by live music concerts ($284m), live theatre or dance show ($188m), and art gallery or museum ($112).

FIGURE 152: ECONOMIC VISITION VALUE FOR ARTS AND CULTURAL SCENE IN SYDNEY



Source: Deloitte, 2016

Nature Based Tourism

Nature based tourism is leisure travel undertaken largely or solely for the purpose of enjoying natural attractions and engaging in a variety of nature-based activities. Nature based tourism is currently experiencing growth.

In 2015, there was 13 per cent growth in international visitors who went to State and National Parks. In 2016, 68 per cent of all international visitors engaged in nature-based activity. Nature based tourism was also found to be popular among overnight domestic tourists, research suggests that 27 per cent of overnight tourists engaged in nature-based tourism[97].

Food & Wine Tourism

Tourism Australia reports that, of people who have never visited Australia, only 26 per cent associate the destination with good food and wine. Those who *have* visited Australia, rank the country as second across 15 major markets for food and wine experiences[98]. This suggests food and wine tourism is of high quality in Australia but there is a need for this message to become more widespread.

Some of the most attractive food related experiences amongst high value travellers includes:

- Heritage: gourmet experiences which speak of a region's heritage and highlight local produce.
- Wellness: desire for balanced eating using the freshest and most nutritious produce.
- Occasions: experiences where the food takes centre stage at any price point from street food to find dining.
- Stories: the provenance, production, craftmanship of products and personalised culinary experiences[99].

In 2018, the NSW Government released its *NSW Food and Wine Tourism Strategy and Action Plan 2018-2022* that recognises the trend of eating and drinking local produce in a unique location or venue is an integral part of the travel experience and is a notable way to connect travellers with local customs and culture.

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[97] Tourism Australia, 2017, https://www.ecotourism.org.au/assets/Uploads/Manifesto-v5.0.pdf, date accessed: 14/04/2019
[98] Tourism Australia, 2019, Food and Wine, http://www.tourism.australia.com/en/about/our-campaigns/food-and-wine.html, date accessed: 27/05/2019
[99] Tourism Australia, 2019, Food and Wine, http://www.tourism.australia.com/en/about/our-campaigns/food-and-wine.html, date accessed: 27/05/2019

It has been estimated that in the year ending December 2017, there were approximately 1.3 million domestic wine travellers spending $1 billion. In relation to food travellers, there was 3.5 million domestic overnight visitors spending $3.1 billion and 1.4 million international visitors, spending $5.4 billion[100].

Accommodation

The Australian accommodation monitor (2017-2018) found that Australian accommodation created $14.7 billion worth of revenue. Australian capitals cities had the highest revenue per room and the highest occupancy rate at 79.8 per cent. Luxury and upper scale rooms were found to have a higher occupancy rate of 80.9 per cent which was compared to a 75.5 per cent of upscale and upper mid classes. The occupancy rate of midscale and economy rooms were found to have a 68.9 per cent occupancy rate[101].

Considerations for Northern Beaches: Northern Beaches contains a number of valuable natural assets. Given tourism and visitors are such an important component of the Greater Sydney economy, identifying how they can better access and engage in activities or business within the LGA is important.

13.22 Sustainability

In 2015, 193 Member States including Australia adopted the 2030 Agenda for Sustainable Development. It provides a blueprint for countries to work together to tackle climate change and achieve a sustainable future through improving health and education, reducing inequality, fostering economic growth, preserving oceans and forests and collaboration. The Agenda aims to integrate the social, environmental and economic dimensions of sustainable development.

Australia Government is on the way to achieve Goal 11: Sustainable Cities and Communities through its many initiatives. In 2016, the Australian Government set out its national approach to cities in the 2016 Smart Cities Plan which outlines a vision for productive and liveable cities by driving collaboration between all levels of government, the private sector, research organisations and the community. The Smart Cities Plan includes three pillars: Smart Investment, Smart policy and Smart Technology.

The Government invested $50 million in the Smart Cities and Suburbs Program to support the delivery of innovative smart city projects. 21 projects in NSW were funded through this program including 3D Technology for Urban Planning in Woollahra, ChillOUT Smart Social Spaces in Georges River, Energy Data for Smart Decision Making for several LGAs including Northern Beaches, Interactive City management in Melbourne, Liveable Neighbourhoods in Lake Macquarie and Sydney City and Melrose Park: Smart Planning for Climate Responsive Neighbourhood. These projects are at various stages and addressing different issues such as mobility, social health, urban irrigation, energy and water systems and management of cities.

New developments and urban renewal projects are central to the development of sustainable cities and communities. Many developers have integrated the Sustainable Development Goal into their projects. One recent example is the development of Barangaroo. The 22-hectare disused container wharf was converted into a mixed-use precinct with the goal of a carbon neutral precinct. In 2009, the NSW Government committed Barangaroo to the Climate Positive Development Program. Barangaroo includes centralised infrastructure such as Sydney Harbour water cooling, embedded electricity networks, recycled water treatment plants and on-site renewable energy generation. External agencies, contractors and organisations are required to contribute to the Sustainability Goals through the following measures:

[100] NSW Government, 2018, NSW Food and Wine Tourism Strategy and Action Plan 2018-2022, https://www.destinationnsw.com.au/wp-content/uploads/2018/11/nsw-food-and-wine-tourism-strategy-and-action-plan-2018-2022.pdf?x15361, date accessed: 27/05/2019
[101] Tourism Research Australia, 2010, https://www.tra.gov.au/Economic-analysis/Australian-Accommodation-Monitor/aam-2018, date accessed: 16/04/2019

- Carbon neutral. All buildings at Barangaroo are required to report annual greenhouse gas emissions and contribute to renewable energy and carbon offsets.
- Water positive. The precinct uses captured rainwater and treated water for toilet flushing, irrigation, wash down and fire suppression.
- Zero waste emissions. At Barangaroo, all food, office, commercial and industrial waste is treated and managed using methods that are climate neutral.
- Community well-being. More than 50 per cent of Barangaroo will be public space.

Case Study: Smart Social Spaces: Smart Street Furniture supporting Social Health, Georges River Council Area

University of New South Wales and Georges River Council have been awarded the Round One Smart Cities and Suburbs Program funding to pilot a smart infrastructure management system. This project used a variety of environmental IoT sensors (sound sensors, use counters, flow meters, power draw counters etc.) to record real-time use of urban furnishings in public spaces. This enables efficient and informed management of public space and its infrastructure in a local government precinct.

This project also designed and tested a new smart street furniture which includes General Power Outlets (GPO), USB outlets and a water tap. The street furniture allows people to recharge their phones, wash their hands and use cooking appliances. Georges River Council has since then secured the Round Two funding and will deliver smart outdoor community spaces called ChillOUT hubs that utilise IoT environmental sensors and provide Wifi access points, flexible work and rest spaces. The ChillOUT hubs are community spaces where people can connect technologically, professionally and socially, at the same time, they collect data that will aid Council's future planning.

Source: Georges River Council, https://www.georgesriver.nsw.gov.au/Council/About-Your-Council/Publications/Media/Smart-city-innovations-to-connect-the-Georges-Rive

Case Study: Vertical Farming using Hydroponics - Sproutstack

With the global population projected to grow to 9.8 billion in 2050, the demand for food and other agricultural products will increase. Agricultural production that depends on soil and water might not be sufficient to meet future demands as climate change could cause declines in overall productivity. It has been found that changeable weather conditions are the primary driver of variations in agricultural output over time. There are opportunities to use more sustainable and less space restricted way of farming. As 80 per cent of all food is expected to be consumed in cities by 2050, urban farming presents a unique opportunity to reduce food miles and carbon footprints.

One method that is not restricted by weather conditions is hydroponic farming. Hydroponic farming doesn't require soil, instead it applies a nutrient-rich solution to deliver water and minerals to the roots of the plants. Weather conditions do not affect hydronic farms as the crops grow in a controlled environment unaffected by fluctuating rainfalls and changes in temperature. A report by Ellen Macarthur Foundation suggests a theoretical maximum of one-third (by weight) of the food needed in urban areas could be grown within cities. One of the main challenges to this hypothesis is the availability of land for urban farming. Hydroponic farming is more space efficient than outdoor production.

Sprout Stack is a Sydney based indoor-farming business that uses hydroponics to grow crops in a shipping container. The founders of Sprout Stack wanted to increase food production in a sustainable way to meet future demands. Sprout Stack grows crops indoors with LED lights to provide ideal light all year round. The automated irrigation system uses 95 per cent less water than traditional growing systems. The shipping containers can be placed near residential areas and therefore reducing food miles.

Source: SBS 2018, https://www.sbs.com.au/news/small-business-secrets/article/2018/07/20/sprout-stack-changing-face-australian-farming

Considerations for Northern Beaches: Northern Beaches Council is aiming to be a leader in sustainability. Case studies highlight there are innovative business and design concepts that could be implemented to help progress the sustainability agenda within the LGA.

13.23 Key Findings

All facets of the retail landscape are changing

The retailing landscape is varied and changing. Some of the new supermarkets offerings are smaller in format with a more tailored and gourmet selection of foods and are also aimed at appealing to time-poor workers that want healthy and ready-to-go meals. Growth of smaller format supermarkets in centres may arise in the Northern Beaches.

Regional shopping centre maintain popularity but are also becoming more mixed-use centres to compete with the rise in online retailing. Fine grain retailing offers a point of difference to centres that contain large shopping centres and can encourage a more unique, boutique experience at a human scale. Warringah Mall is likely to continue to be a centre of gravity as a regional shopping mall for the LGA. Fine grain retailing could set smaller local centres apart from the larger strategic centres. The food and dining scene have seen strong success in cafes, some restaurants are building the 'experience' components with other activity to attract diners and food courts are redeveloping to engage with the 'outdoors' and improve amenity.

Online retailing is impacting traditional bricks and mortar retailing and these retailers are having to find new ways to engage and attract customers. Online retailing growth has increased the value of industrial and urban services lands that process these products and reiterates the value of these lands in the LGA.

Retaining valuable industrial and urban services lands

With the rise in online retailing, the value of industrial and urban services lands for logistics uses located in close proximity to residential areas has never been more apparent. Advanced manufacturing has seen the inclusion of greater technology in the manufacturing process and some of these types of manufacturing processes could locate in the industrial precinct into the future. There has also been growth in creative led land uses in these areas. Ensuring these lands in the Northern Beaches LGA are retained will be important to ensure industrial and urban services provide for local communities and are not overcome by creative-led gentrification.

There are two components to a night-time economy that require a planning response

A night-time economy has two components, firstly, a practical and functional component where services, safety and amenity assist late-night workers and shift workers. A relevant planning response will be required around the Frenchs Forest centre in this regard. Secondly, a more social component where events, places and activities should cater to the needs and interests of the local community in the LGA. Local studies and policies indicate this is a key priority for the Northern Beaches and will have to be progressed in centres like Manly, Dee Why, Mona Vale and the smaller local centres.

Coworking spaces can take many forms

Coworking spaces can cater to different work styles for individuals to small companies, for freelancers, independent workers and start-ups. Coworking spaces can support a variety of concepts, such as promoting the arts, sustainability or the concept of community. Some coworking spaces are evolving to include cafes and retail spaces.

The relevance of these spaces to the local population will have to be investigated more closely through business surveys to determine whether the local population has need of these spaces, and if so, what particular format would work best to support greater productivity.

Employment opportunities, changes to the built environment and economic services and activities will be needed to support the ageing population

The Northern Beaches has a significant ageing population. Design and access to economic centres in the LGA will have to consider their needs. Socially, businesses in these centres and the activities offered will have to cater to their abilities and interests to ensure they continue to be active and engage members of the community. With the rise in this population, the need for allied and social assistance services may increase within the LGA. Determining how the Frenchs Forest health and education precinct can assist this increase will be beneficial. Economic centres must also respond and cater to the rest of the population in the LGA, including those migrating in to the LGA that will help replenish the workforce.

There are many strengths to tourism in Australia

Arts and culture-based tourism, food and wine centred tourism and nature-based tourism are all strongly represented within the NSW visitor economy. There is potential for these areas to be capitalised upon further in NSW.

Northern Beaches contains a number of valuable natural assets. Given tourism and visitors are such an important contributor to the Greater Sydney economy and Manly is already internationally recognised as a key tourism site; it will be valuable to ensure visitor access and ability to engage in local activities or local businesses within the LGA is important. Protecting the natural environmental should also be a key consideration.

The drive to build sustainable and smart cities

Actions to tackle climate change have to be supported by all levels of government. The Australian Government has adopted the Agenda for Sustainable Development. Technology offers local councils innovative ways to contribute and progress this movement.

Northern Beaches Council is aiming to be a leader in sustainability. Case studies highlight there are innovative business and design concepts that could be implemented to help progress the sustainability agenda within the LGA.

APPENDIX 4 – DETAILED PRECINCT PROFILES

13.24 Strategic centres

Frenchs Forest

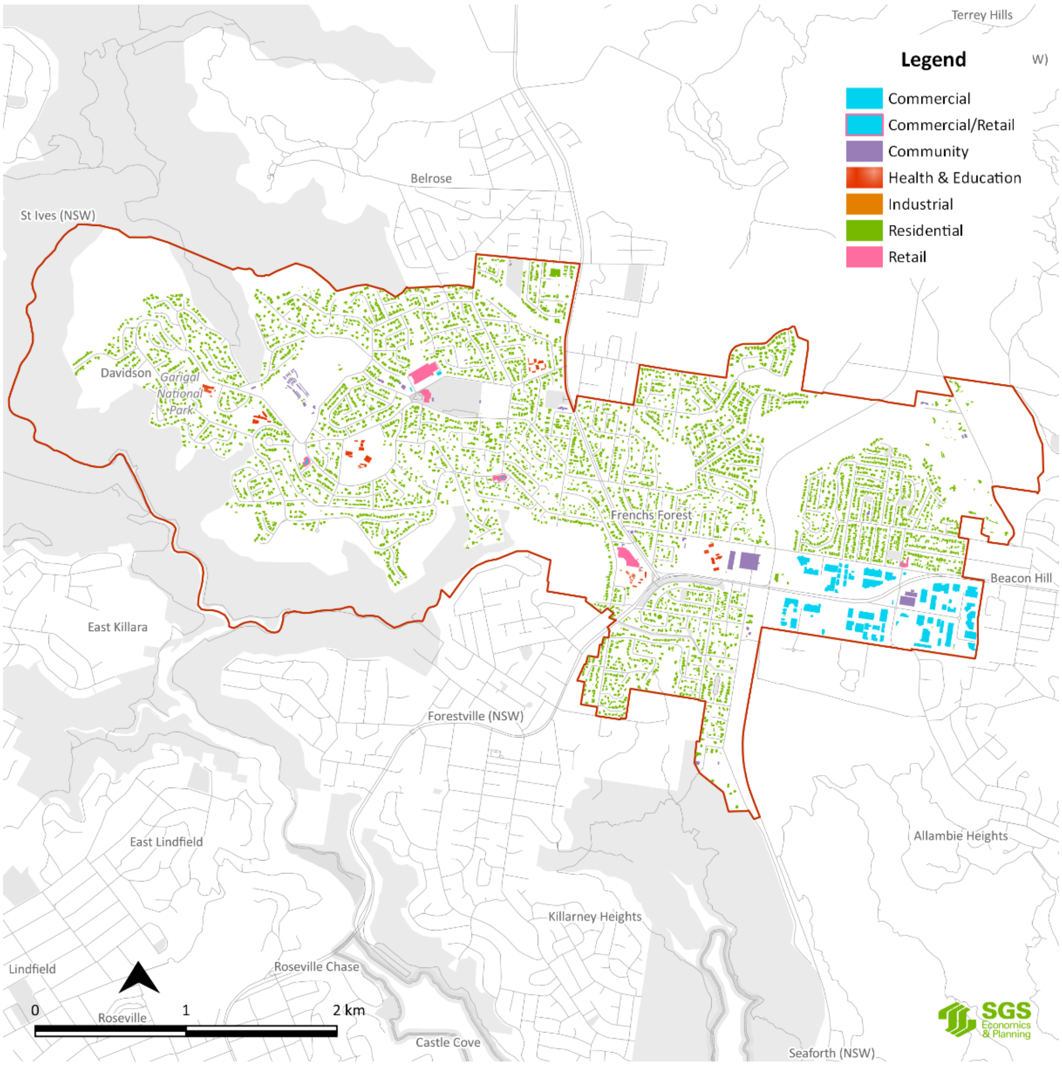
Overview

Frenchs Forest is a suburban neighbourhood transitioning to a major employment centre with a developing Health and Education Precinct being anchored by the Frenchs Forest Hospital, a developing town centre and a business park in close proximity. Workers in the centre come from both within and outside of the LGA, reflecting the strategic nature of the centre.

Frenchs Forest is characterised by a separation between the Frenchs Forest hospital and future Town Centre from the 1970s Business Parks to the eastern edge of the suburb by the Wakehurst Parkway and Warringah Road. The Business Parks are large-format office buildings with on-site carparking facilities. They have a network of trees and bushland which makes the area more amenable. The Business Park contains a diverse collection of large businesses including Integrated Technology Services, Autonomous Energy, Fujitsu Australia Software Technology, and a range of other businesses. The Parkway Hotel helps to break up the extent of the industrial precincts by acting as a place for food or accommodation.

Land Use overview

FIGURE 153: FRENCHS FOREST



Source: SGS Economics and Planning, 2019

TABLE 170: FRENCHS FOREST LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	4,996	0.2%
	Other Food	765	0.0%
	Clothing	1,176	0.1%
	Hospitality	2,961	0.1%
	Household goods	195	0.0%
	Other Retailing	1,877	0.1%
	Department Stores	147	0.0%
Non-Retail	Residential	1,493,361	68.1%
	Commercial	516,365	23.5%
	Industrial	-	0.0%
	Health & Education	68,313	3.1%
	Community	103,123	4.7%
	Total	**2,193,278**	**100.0%**

Source: SGS Economics and Planning, 2019

Residents

Over +5,000 additional people are projected to be living in Frenchs Forest over the 20 years between 2016 and 2036. While Retirees are the fastest growing age group, Mature Adults are projected to make up the largest age group in Frenchs Forest by 2036. This may lead to a mature local workforce being present in the future.

TABLE 171: FRENCHS FOREST AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	1,251	1,523	274	22%
Youth	4,748	5,629	879	19%
Young Adult	1,677	2,327	647	**39%**
Adult	3,680	4,062	382	10%
Mature Adult	5,361	**6,721**	**1,357**	25%
Retirees	3,323	4,887	**1,562**	**47%**
Total	*20,040*	*25,149*	*5,101*	

Source: TZP2016 v1.51 (TPA)

Industry

The Health Care and Social Assistance Industry is projected to grow significantly into the future, with an additional +1,429 jobs over the 20 years between 2016 and 2036. Professional, Scientific and Technical Services (+626), Education and Training (+285) and Accommodation and Food Services (+202) are all projected to grow as Industries within Frenchs Forest.

TABLE 172: FRENCHS FOREST EMPLOYMENT PROJECTIONS BY 1-DIGIT ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	25	21	-4	-16%
Mining	-	-	-	-
Manufacturing	776	517	-258	-33%
Electricity, Gas, Water and Waste Services	12	16	4	33%
Construction	764	825	62	8%
Wholesale Trade	1,228	1,301	74	6%
Retail Trade	1,544	1,630	86	6%
Accommodation and Food Services	696	898	202	29%
Transport, Postal and Warehousing	460	383	-77	-17%
Information Media and Telecommunications	490	507	15	3%
Financial and Insurance Services	148	205	56	38%
Rental, Hiring and Real Estate Services	93	108	14	15%
Professional, Scientific and Technical Services	1,355	1,981	626	46%
Administrative and Support Services	393	381	-12	-3%
Public Administration and Safety	179	274	95	53%
Education and Training	664	949	285	43%
Health Care and Social Assistance	1,157	**2,584**	1,429	124%
Arts and Recreation Services	304	412	108	36%
Other Services	504	690	184	37%
Total	*10,792*	*13,682*	*2,889*	-

Source: TZP2016 v1.51 (TPA)

Employment by BICs reflects the growing presence of the Health and Education industry in Frenchs Forest, projected to grow significantly more than other industries. Knowledge Intensive is also projected for substantial growth.

TABLE 173: FRENCHS FOREST EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	2,657	3,452	796	30%
Health and Education	1,820	3,534	1,714	94%
Population Serving	3,814	**4,458**	644	17%
Industrial	2,500	2,236	-263	-11%

Source: TZP2016 v1.51 (TPA)

Health and Education is projected to grow significantly in Frenchs Forest. While TPA does not provide a breakdown of employment projections beyond a 1-digit ANZSIC level (2-digit for Manufacturing), the current Health and Education sector is able to be broken down for 2016 using ABS data. The totals are slightly different across TPA and ABS due to the different boundaries that are used to define the precincts.

The data shows that Other Social Assistance Services have a large presence in Frenchs Forest (421 jobs), followed by a number of Education and Training sub-industries such as Secondary Education (205), Child Care Services (163) and Primary Education (155).

There is a high presence of Specialist Medical and GP Services, culminating to a combined total of 122 jobs in Frenchs Forest. While Allied Health Services comparatively do not have the highest amount of jobs (such as Pathology and Diagnostic Imaging, Physiotherapy, and Chiropractic and Osteopathic Services), their significance to the economy and the community cannot be quantified by the number of jobs. They serve as an important component of patient-centred care in Health and Education Precincts by providing on-going support for recovery, rehabilitation and care established by hospitals and medical specialists.

TABLE 174: FRENCHS FOREST BREAKDOWN OF HEALTH AND EDUCATION AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment (Health and Education)	2016 Jobs	4-digit ANZSIC Employment (Health and Education)	2016 Jobs	4-digit ANZSIC Employment (Health and Education)	2016 jobs
Other Social Assistance Services	421	Other Allied Health Services	57	Arts Education	17
Secondary Education	205	Health Care and Social Assistance, nfd	28	Physiotherapy Services	16
Child Care Services	163	Adult, Community and Other Education nec	26	Dental Services	15
Primary Education	155	Hospitals (except Psychiatric Hospitals)	24	Chiropractic and Osteopathic Services	15
Sports and Physical Recreation Instruction	81	Pathology and Diagnostic Imaging Services	24	Optometry and Optical Dispensing	11
Specialist Medical Services	63	Aged Care Residential Services	20	Education and Training, nfd	11
General Practice Medical Services	59	Combined Primary and Secondary Education	20	Higher Education	11
Preschool Education	58	Other Residential Care Services	18	*. . . Total*	*1,589*

Source: ABS Census TableBuilder (2016)

In terms of Professional, Scientific and Technical Services, there is a high amount of Computer System Design and Related Services jobs (442), followed by Management Advice and Related Consulting Services (63) and Accounting Services (60).

TABLE 175: FRENCHS FOREST BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Computer System Design and Related Services	442
Management Advice and Related Consulting Services	63
Accounting Services	60
Engineering Design and Engineering Consulting Services	55
Scientific Research Services	40
Market Research and Statistical Services	35
Other Specialised Design Services	29
Architectural Services	27
Legal Services	18
Advertising Services	18

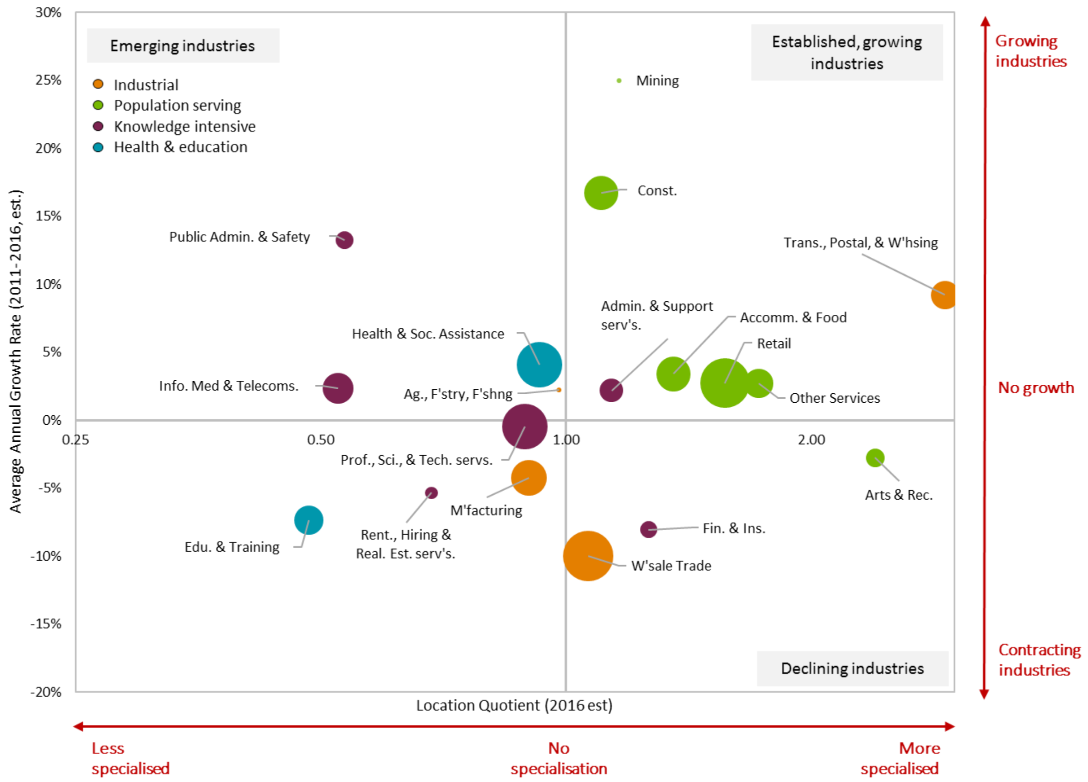
Source: ABS Census TableBuilder (2016)

Industry specialisation

Frenchs Forest is largest specialised in population serving industries such as Admin. and Support Services, Accommodation and Food Services, Retail Trade, and Other Services. While these industries are specialised, it is important to know that the specialisations are all below the LQ of 2 (meaning they do not reach 'double' the shares seen in the Northern District, but still contain a higher proportion comparatively).

Transport, Postal and Warehousing in Frenchs Forest's most specialised industry. While Professional, Scientific and Technical Services are one of the largest industries in Frenchs Forest, it is not specialised compared to the Northern District (with an LQ below 1).

FIGURE 154: LOCATION QUOTIENT OF FRENCHS FOREST COMPARED TO THE NORTH DISTRICT



Source: SGS 2019 using ABS Census TableBuilder (2011, 16)

Within the Transport, Postal and Warehousing industry, Postal Services has grown the most over the five years between 2011 and 2016, adding +41 jobs. Other Warehousing and Storage Services has also grown (+22 jobs), followed by Courier Pick-up and Delivery Services (+14).

Urban Bus Transport (including Tramway) has declined the most (-4 jobs), followed by Customs Agency Services (-3 jobs).

In terms of Arts and Recreation Services, Other Gambling Activities has grown the most (+32 jobs), while a number of other sub-industries have declined. The greatest decline has been in Sports and Physical Recreation Venues, Grounds and Facilities Operation (-16), and Amusement and Other Recreational Activities nec (-14).

The table below does not include sub-industries which had zero jobs in 2016. Any sub-industries which had zero jobs in 2016 but contained a modest number of jobs in 2011 have been qualitatively discussed above.

TABLE 176: FRENCHS FOREST SUB-INDUSTRY CHANGE, 2011-16 (POW)

Industry	Sub-industry	2011 Jobs	2016 Jobs	Change 2011-16
Transport, Postal and Warehousing	Transport, Postal and Warehousing, nfd	0	10	10
	Road Freight Transport	21	19	-2
	Taxi and Other Road Transport	0	6	6
	Air and Space Transport	0	9	9
	Postal and Courier Pick-up and Delivery Services, nfd	0	4	4
	Postal Services	174	215	41
	Courier Pick-up and Delivery Services	8	22	14
	Other Transport Support Services nec	3	4	1
	Other Warehousing and Storage Services	16	38	22
Arts and Recreation Services	Arts and Recreation Services, nfd	0	4	4
	Performing Arts Operation	3	4	1
	Creative Artists, Musicians, Writers and Performers	22	15	-7
	Performing Arts Venue Operation	9	3	-6
	Health and Fitness Centres and Gymnasia Operation	49	41	-8
	Sports and Physical Recreation Venues, Grounds and Facilities Operation	32	16	-16
	Other Horse and Dog Racing Activities	3	4	1
	Other Gambling Activities	26	58	32

Source: ABS Census TableBuilder (2011, 16)

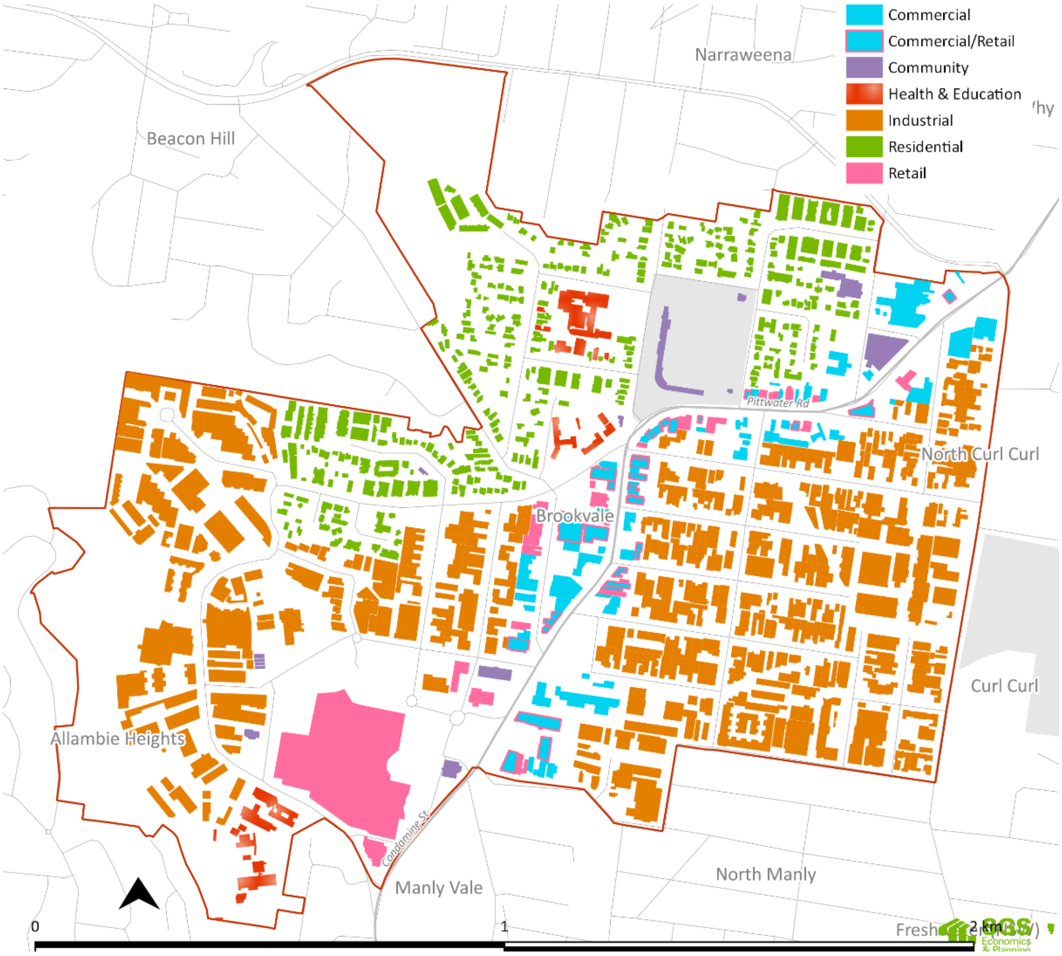
Brookvale

Overview

Brookvale is a unique centre that encompasses residential, commercial, retail and industrial land uses. A number of industrial and urban service businesses are located both east and west of Pittwater Road, providing significant employment and supply chain opportunities and also contributing to the functionality of the Northern Beaches and Greater Sydney. Industrial land uses in the centre are mainly traditional (such as plumbing, car and electronic repair) but there is also a presence of some modern industrial uses, such as breweries. Warringah Mall acts as a centre of gravity for the local population with its provision of high end, population servicing retail uses. Along Pittwater Road, are a number of commercial and retail uses such as car show rooms, real estate agents and homeware supply businesses. The thoroughfare has a low level of amenity. Low-density residential tends to surround the centre.

Land use overview

FIGURE 155: BROOKVALE LAND USE AUDIT



Source: SGS Economics and Planning, 2019

TABLE 177: BROOKVALE LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	12,799	1.4%
	Other Food	2,210	0.2%
	Clothing	35,405	3.8%
	Hospitality	5,237	0.6%

	Household goods	17,793	1.9%
	Other Retailing	14,307	1.5%
	Department Stores	43,363	4.7%
Non-Retail	Residential	157,946	17.0%
	Commercial	182,062	19.5%
	Industrial	342,989	36.8%
	Health & Education	75,749	8.1%
	Community	41,796	4.5%
	Total	**931,656**	**100.0%**

Source: SGS Economics and Planning, 2019

Residents

Only +754 additional people are projected to be living in Brookvale over the 20 years between 2016 and 2036. While Retirees are the fastest growing age group, Adults are projected to make up the largest age group in Frenchs Forest by 2036, followed by Mature Adults and Young Adults.

TABLE 178: BROOKVALE AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	218	262	43	20%
Youth	344	406	64	19%
Young Adult	558	741	183	**33%**
Adult	928	**1,036**	109	12%
Mature Adult	756	**948**	190	25%
Retirees	322	489	165	**51%**
Total	*3,126*	*3,882*	*754*	-

Source: TZP2016 v1.51 (TPA)

Industry

Brookvale's largest industry by 2036 will be Retail Trade (3,903 jobs), significantly higher than any other industry. This was also the case in 2016. Furthermore, the Professional, Scientific and Technical Services Industry is projected to grow significantly more than any other industry into the future, with an additional +646 jobs over the 20 years between 2016 and 2036. Other Services (+368), Education and Training (+308) and Public Administration and Safety (+214) are also projected for comparatively higher growth into the future.

Manufacturing is expected to drop significantly into the future, losing -707 jobs in the 20 years between 2016 and 2036.

TABLE 179: BROOKVALE EMPLOYMENT PROJECTIONS BY 1-DIGIT ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	38	32	-6	-16%
Mining	16	19	3	19%
Manufacturing	2,199	1,492	-707	-32%
Electricity, Gas, Water and Waste Services	106	147	41	39%
Construction	1,516	1,637	121	8%
Wholesale Trade	1,569	1,664	95	6%
Retail Trade	3,698	**3,903**	205	6%
Accommodation and Food Services	667	863	196	29%
Transport, Postal and Warehousing	581	483	-98	-17%
Information Media and Telecommunications	327	337	10	3%
Financial and Insurance Services	296	410	114	39%
Rental, Hiring and Real Estate Services	237	273	36	15%
Professional, Scientific and Technical Services	1,398	2,044	646	46%
Administrative and Support Services	572	553	-19	-3%
Public Administration and Safety	401	615	214	53%
Education and Training	718	1,026	308	43%
Health Care and Social Assistance	909	1,032	123	14%
Arts and Recreation Services	229	311	82	36%
Other Services	999	1,367	368	37%
Total	*16,476*	*18,208*	*1,732*	-

Source: TZP2016 v1.51 (TPA)

Employment by BICs reflects the growing presence of the Knowledge Intensive industry in Brookvale, closely followed by the Population Serving Sector. Industrial is projected to decline significantly.

TABLE 180: BROOKVALE EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	3,228	4,231	1,003	31%
Health and Education	1,627	2,059	432	27%
Population Serving	7,108	**8,080**	972	14%
Industrial	4,508	3,839	-669	-15%

Source: TZP2016 v1.51 (TPA)

Due to Brookvale containing a significant extent of industrial land, there is merit in analysing changes to the Industrial industry beyond a 1-digit level using TPA's projections. TPA's projections provide 2-digit ANZSIC projections for the Manufacturing industry. It shows that all sub-industries of Manufacturing are projected to decline, however, some are projected to decline drastically more than others.

In 2036, Furniture and Other Manufacturing is projected to continue having the largest presence of Manufacturing sub-industries (505 jobs), despite also having the largest number of jobs lost over the 20 years between 2016 and 2036 compared to any other Manufacturing sub-industry (-189 jobs).

The second largest sub-industry in 2036 will be Machinery and Equipment Manufacturing (140 jobs), followed by Primary Metal and Metal Product Manufacturing (118 jobs) and Polymer Product and Rubber Product Manufacturing (105 jobs).

Pulp, Paper and Converted Paper Product Manufacturing is expected to maintain a relatively similar level of employment as 2016 (49 jobs).

Beverage and Tobacco Product Manufacturing and Textile, Leather, Clothing and Footwear Manufacturing are projected to decline the most over the 20 years between 2016 and 2036.

TABLE 181: BROOKVALE MANUFACTURING EMPLOYMENT PROJECTIONS BY 2-DIGIT ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Food Product Manufacturing	134	85	-49	-37%
Beverage and Tobacco Product Manufacturing	40	13	-27	-68%
Textile, Leather, Clothing and Footwear Manufacturing	102	25	-77	-75%
Wood Product Manufacturing	98	87	-11	-11%
Pulp, Paper and Converted Paper Product Manufacturing	53	49	-4	-8%
Printing (including the Reproduction of Recorded Media)	183	100	-83	-45%
Petroleum and Coal Product Manufacturing	78	43	-35	-45%
Basic Chemical and Chemical Product Manufacturing	63	39	-24	-38%
Polymer Product and Rubber Product Manufacturing	157	105	-52	-33%
Non-Metallic Mineral Product Manufacturing	67	44	-23	-34%
Primary Metal and Metal Product Manufacturing	133	118	-15	-11%
Fabricated Metal Product Manufacturing	112	75	-37	-33%
Transport Equipment Manufacturing	91	64	-27	-30%
Machinery and Equipment Manufacturing	194	140	-54	-28%
Furniture and Other Manufacturing	694	**505**	-189	-27%
Total	*2,199*	*1,492*	*-707*	-

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific and Technical Services industry in Brookvale, there is a high amount of Accounting Services (209 jobs), followed by Computer System Design and Related Services jobs (178), Professional Photographic Services (124) and Advertising Services (109).

TABLE 182: BROOKVALE BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Accounting Services	209
Computer System Design and Related Services	178
Professional Photographic Services	124
Advertising Services	109
Other Specialised Design Services	70
Legal Services	70
Management Advice and Related Consulting Services	67
Engineering Design and Engineering Consulting Services	61
Architectural Services	53

Source: ABS Census TableBuilder (2016)

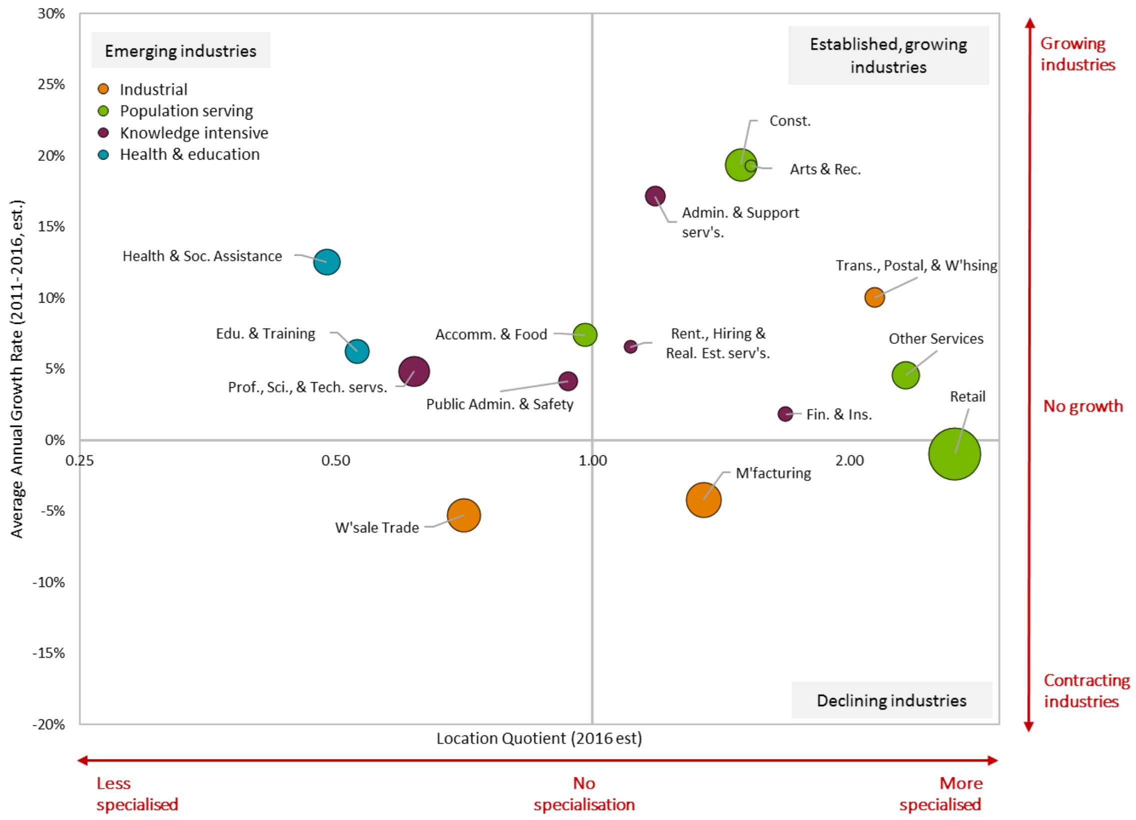
Industry Specialisation

Brookvale is largely specialised in Retail Trade. It is also one of its largest industries. Other Services is also specialised, but as a comparatively smaller industry.

The Knowledge Intensive industries of Brookvale are a mix of specialised and unspecialised. Professional, Scientific and Technical Services is the largest Knowledge Intensive industry; however, it is not specialised compared to the North District.

Financial and Insurance Services has an approx. LQ of 1.7, however, the industry presence in Brookvale is small.

FIGURE 156: LOCATION QUOTIENT OF BROOKVALE COMPARED TO THE NORTH DISTRICT



Source: SGS 2019 using ABS Census TableBuilder (2011, 16)

The table below breaks down just the Manufacturing industry at a 3-dig level. It shows that Beverage Manufacturing has increased the most over the five years between 2011 and 2016, adding +31 jobs. Bakery Product Manufacturing has also increased (+23 jobs) as well as Basic Non-Ferrous Metal Manufacturing (+14). Structural Metal Product Manufacturing has declined the most (-52), followed by Other Wood Product Manufacturing (-38).

There are a number of Manufacturing sub-industries which recorded zero jobs in 2016 but had a presence in 2011. They are not included in the table alongside Manufacturing sub-industries which had no presence in 2016 or 2011.

The industries which did have a presence in 2011 but no longer do (i.e. zero jobs) are the following:

- Pump, Compressor, Heating and Ventilation Equipment Manufacturing (-38 jobs)
- Polymer Product and Rubber Product Manufacturing (-10)
- Basic Ferrous Metal Product Manufacturing (-7)
- Iron and Steel Forging (-7)
- Textile Manufacturing (-4)
- Reproduction of Recorded Media (-4)
- Metal Container Manufacturing (-4)
- Log Sawmilling and Timber Dressing (-3)
- Pulp, Paper and Paperboard Manufacturing (-3)
- Other Basic Chemical Product Manufacturing (-3)
- Ceramic Product Manufacturing (-3)

TABLE 183: BROOKVALE MANUFACTURING SUB-INDUSTRY CHANGE, 2011-16 (POW)

Sub-industry	2011 Jobs	2016 Jobs	Change 2011-16
Manufacturing, nfd	231	208	-23
Food Product Manufacturing, nfd	13	21	8
Meat and Meat Product Manufacturing	20	18	-2
Dairy Product Manufacturing	0	12	12
Fruit and Vegetable Processing	6	4	-2
Bakery Product Manufacturing	25	48	23
Sugar and Confectionery Manufacturing	5	5	0
Other Food Product Manufacturing	21	15	-6
Beverage Manufacturing	0	31	31
Textile, Leather, Clothing and Footwear Manufacturing, nfd	11	5	-6
Leather Tanning, Fur Dressing and Leather Product Manufacturing	3	8	5
Textile Product Manufacturing	26	21	-5
Clothing and Footwear Manufacturing	47	24	-23
Other Wood Product Manufacturing	99	61	-38
Converted Paper Product Manufacturing	33	31	-2
Printing and Printing Support Services	184	161	-23
Petroleum and Coal Product Manufacturing	46	58	12
Basic Chemical and Chemical Product Manufacturing, nfd	7	3	-4
Basic Chemical Manufacturing	8	6	-2
Basic Polymer Manufacturing	17	9	-8

Pharmaceutical and Medicinal Product Manufacturing	3	4	1
Cleaning Compound and Toiletry Preparation Manufacturing	14	7	-7
Polymer Product Manufacturing	118	102	-16
Natural Rubber Product Manufacturing	6	3	-3
Glass and Glass Product Manufacturing	9	4	-5
Cement, Lime, Plaster and Concrete Product Manufacturing	22	18	-4
Other Non-Metallic Mineral Product Manufacturing	14	10	-4
Basic Ferrous Metal Manufacturing	47	29	-18
Basic Non-Ferrous Metal Manufacturing	16	30	14
Basic Non-Ferrous Metal Product Manufacturing	19	4	-15
Fabricated Metal Product Manufacturing, nfd	21	4	-17
Structural Metal Product Manufacturing	88	36	-52
Sheet Metal Product Manufacturing (except Metal Structural and Container Products)	0	3	3
Other Fabricated Metal Product Manufacturing	44	27	-17
Motor Vehicle and Motor Vehicle Part Manufacturing	42	29	-13
Other Transport Equipment Manufacturing	13	14	1
Machinery and Equipment Manufacturing, nfd	14	14	0
Professional and Scientific Equipment Manufacturing	16	11	-5
Computer and Electronic Equipment Manufacturing	31	15	-16
Electrical Equipment Manufacturing	45	37	-8
Domestic Appliance Manufacturing	3	3	0
Specialised Machinery and Equipment Manufacturing	8	8	0
Other Machinery and Equipment Manufacturing	29	9	-20
Furniture Manufacturing	125	109	-16
Other Manufacturing	50	36	-14

Source: ABS Census TableBuilder (2011, 16)

TABLE 184 looks at the other interesting specialisations, such as Transport, Postal and Warehousing and Other Services, while also breaking down the Professional, Scientific and Technical Services industry. It shows that Urban Bus Transport jobs have increased significantly (+46 jobs), followed by Other Warehousing and Storage Services (+38) and Road Freight Transport (+20).

Furthermore, in terms of Other Services, Other Automotive Repair and Maintenance increased the most (+57), closely followed by Automotive Body, Paint and Interior Repair (+46).

In terms of Professional, Scientific and Technical Services, Professional Photographic Services has increased significantly (+64), followed by Management Advice and Related Consulting Services (+21). Decline has been minimal; however, it has been present in Surveying and Mapping Services (-3), Scientific Testing and Analysis Services (-2), and Veterinary Services (-2).

TABLE 184: BROOKVALE SUB-INDUSTRY CHANGE, 2011-16 (POW)

Industry	Sub-industry	2011 Jobs	2016 Jobs	Change 2011-16
Transport, Postal and Warehousing	Transport, Postal and Warehousing, nfd	12	24	12
	Road Freight Transport	65	85	20
	Road Passenger Transport, nfd	18	10	-8
	Interurban and Rural Bus Transport	0	9	9
	Urban Bus Transport (Including Tramway)	84	130	46
	Taxi and Other Road Transport	27	48	21
	Water Transport, nfd	0	3	3
	Air and Space Transport	0	3	3
	Postal Services	23	7	-16
	Courier Pick-up and Delivery Services	10	13	3
	Freight Forwarding Services	0	3	3
	Other Transport Support Services nec	11	12	1
	Other Warehousing and Storage Services	31	69	38
Other Services	Repair and Maintenance, nfd	20	13	-7
	Automotive Electrical Services	21	17	-4
	Automotive Body, Paint and Interior Repair	138	184	46
	Other Automotive Repair and Maintenance	222	279	57
	Machinery and Equipment Repair and Maintenance, nfd	4	9	5
	Domestic Appliance Repair and Maintenance	7	17	10
	Electronic (except Domestic Appliance) and Precision Equipment Repair and Maintenance	33	26	-7
	Other Machinery and Equipment Repair and Maintenance	20	18	-2
	Other Repair and Maintenance nec	18	21	3
	Hairdressing and Beauty Services	90	104	14
	Laundry and Dry-Cleaning Services	13	12	-1
	Photographic Film Processing	21	10	-11
	Other Personal Services nec	32	65	33
	Religious Services	5	12	7
	Business and Professional Association Services	0	3	3
	Other Interest Group Services nec	16	22	6
	Professional, Scientific and Technical Services, nfd	3	9	6
Professional, Scientific and	Professional, Scientific and Technical Services (except Computer System Design and Related Services), nfd	6	7	1
	Scientific Research Services	13	19	6
	Architectural, Engineering and Technical Services, nfd	0	8	8
	Architectural Services	39	53	14
	Surveying and Mapping Services	9	6	-3
	Engineering Design and Engineering Consulting Services	50	61	11
	Other Specialised Design Services	58	70	12
	Scientific Testing and Analysis Services	5	3	-2

Technical Services	Legal Services	61	70	9
	Accounting Services	172	209	37
	Advertising Services	101	109	8
	Market Research and Statistical Services	16	11	-5
	Management and Related Consulting Services, nfd	0	5	5
	Management Advice and Related Consulting Services	46	67	21
	Veterinary Services	6	4	-2
	Professional Photographic Services	60	124	64
	Other Professional, Scientific and Technical Services nec	0	6	6
	Computer System Design and Related Services	176	178	2

Source: ABS Census TableBuilder (2011, 16)

Dee Why

Overview

Dee Why is a residential suburb of walk-up apartments supported by a commercial spine running along Pittwater Road containing a range of employment uses.

Dee Why is a largely population-serving centre, with no real drawcard from an employment specialisation perspective compared to the rest of the Northern Beaches or wider Greater Sydney. It extends beyond and north of Brookvale along Pittwater Road and contains a range of local businesses that service the local area such as cafes and restaurants, pharmacies, gyms, banks, and supermarkets amongst others.

Its character is typical of main street retail, however, the Meriton apartment developments make the eastern side of Dee Why appear significantly more dense from a built environment perspective.

There are also some commercial office floors above main street retail in Dee Why, particularly near the intersection of Pittwater Road and Sturdee Parade.

Dee Why has a suburban structure that since the latter half of the twentieth century has seen increasing residential density and, more recently, a mixing of uses in large, planned, centre developments. These mixed-use centre developments are inwards looking and situated behind the main arterial road, where the majority of the remaining commercial and civic floorspace is located, contiguous with the industrial precinct in Brookvale. A short strip of hospitality uses is located along The Strand at Dee Why beach. Medium density residential flat buildings on long, narrow lots can be found in the first two blocks east and west of Pittwater Road; dwelling houses are spread throughout the rest of the precinct.

Land use overview

FIGURE 157: DEE WHY

Source: SGS Economics and Planning, 2019

TABLE 185: DEE WHY LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	5,595	0.3%
	Other Food	2,524	0.1%
	Clothing	1,679	0.1%
	Hospitality	14,004	0.7%
	Household goods	8,490	0.5%
	Other Retailing	3,303	0.2%
	Department Stores	212	0.0%
Non-Retail	Residential	1,442,255	77.1%
	Commercial	259,894	13.9%
	Industrial	6,106	0.3%
	Health & Education	65,273	3.5%
	Community	62,180	3.3%
	Total	**1,871,515**	**100.0%**

Source: SGS Economics and Planning, 2019

Residents

Over +1,500 additional people are projected to be living in Dee Why over the 20 years between 2016 and 2036. Retirees are the fastest growing age group and are also projected to have the greatest presence compared to any other age group in 2036. Young Adults will also grow substantially to become the second largest age group, suggesting a positive outlook for its local employment prospects.

TABLE 186: DEE WHY AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	1,764	1,802	39	2%
Youth	3,536	3,547	8	0%
Young Adult	3,658	4,188	527	14%
Adult	7,125	**6,834**	-290	-4%
Mature Adult	6,001	**6,450**	443	7%
Retirees	2,820	3,631	813	**29%**
Total	*24,904*	*26,452*	*1,540*	-

Source: TZP2016 v1.51 (TPA)

Industry

Dee Why's largest industry by 2036 will be Health Care and Social Assistance (1,197 jobs), closely followed by Accommodation and Food Services (1,049). Furthermore, the Public Administration and Safety (+297 jobs) Professional, Scientific and Technical Services (+282), and Education and Training (+266) are projected to grow the most into the future.

Manufacturing is expected to drop into the future, losing -39 jobs in the 20 years between 2016 and 2036.

TABLE 187: DEE WHY EMPLOYMENT PROJECTIONS BY 1-DIGIT ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	2	2	0	0%
Mining	-	-	0	-
Manufacturing	119	80	-39	-33%
Electricity, Gas, Water and Waste Services	-	-	0	-
Construction	511	550	39	8%
Wholesale Trade	96	102	6	6%
Retail Trade	814	858	44	5%
Accommodation and Food Services	812	**1,049**	237	29%
Transport, Postal and Warehousing	95	80	-15	-16%
Information Media and Telecommunications	21	21	0	0%
Financial and Insurance Services	209	289	80	38%
Rental, Hiring and Real Estate Services	322	369	47	15%
Professional, Scientific and Technical Services	612	894	282	46%
Administrative and Support Services	247	241	-6	-2%
Public Administration and Safety	557	854	297	53%
Education and Training	622	888	266	43%
Health Care and Social Assistance	1,055	**1,197**	142	13%
Arts and Recreation Services	200	270	70	35%
Other Services	238	324	86	36%
Total	*6,532*	*8,068*	*1,536*	-

Source: TZP2016 v1.51 (TPA)

Employment by BICs reflects the growing presence of the Knowledge Intensive industry in Dee Why, closely followed by the Population Serving Sector and Health and Education. Industrial is projected to decline.

TABLE 188: DEE WHY EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	1,966	**2,666**	702	36%
Health and Education	1,676	2,085	410	24%
Population Serving	2,571	3,051	481	19%
Industrial	315	263	-49	-16%

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in Dee Why, the majority of them are either Accounting Services (209 jobs), Computer System Design and Related Services (178 jobs) and Professional Photographic Services (124).

TABLE 189: DEE WHY BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Accounting Services	101
Legal Services	84
Computer System Design and Related Services	65
Engineering Design and Engineering Consulting Services	37
Management Advice and Related Consulting Services	34
Architectural Services	28

Source: ABS Census TableBuilder (2016)

In terms of the Public Administration and Safety industry in Dee Why, the majority of jobs are Local Government Administration (357 jobs), Police Services (153) and State Government Administration (18).

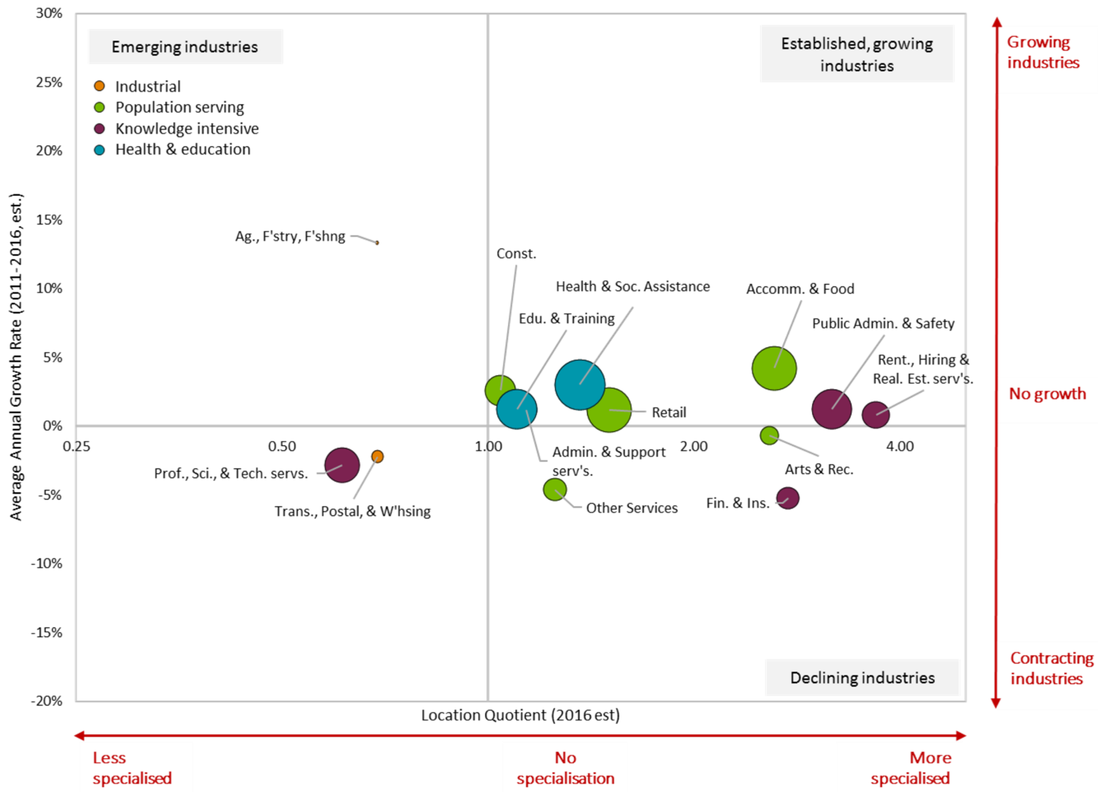
Industry Specialisation

Dee Why has a number of specialisations ranging between an LQ of 1 and 4, however, caution must be taken in drawing out any industry as a clear specialisation compared to the Northern District. For example, the high specialisation of Rental, Hiring and Real Estate Services may be largely driven by the significant uptake of apartments in Dee Why. Furthermore, the specialisation of Pubic Admin. and Safety may be due to Council's presence in the suburb.

Accommodation and Food Services is one of its largest industries and is specialised with an LQ of over 2. This means that its share is over double that of the Northern District average.

While Professional, Scientific and Technical Services is a large industry in terms of Knowledge Intensive industries, it is not as specialised compared to the North District.

FIGURE 158: LOCATION QUOTIENT OF DEE WHY COMPARED TO THE NORTH DISTRICT



Source: SGS 2019 using ABS Census TableBuilder (2011, 16)

As noted previously, Dee Why does not have a stand-out industry specialisation of note apart from Accommodation and Food Services, which is largely a population-serving function.

The table below shows the changes in the Public Admin and Safety industry at a sub-industry level. It shows that Local Government Administration (+15) has increased, as well as Police Services (+15). Central Government Administration had zero jobs in 2016, however, it had 18 jobs in 2011 (reflecting a -18 job decline).

TABLE 190: DEE WHY PUBLIC ADMIN AND SAFETY SUB-INDUSTRY CHANGE, 2011-16 (POW)

Sub-industry	2011 Jobs	2016 Jobs	Change 2011-16
State Government Administration	12	18	6
Local Government Administration	312	327	15
Police Services	138	153	15
Investigation and Security Services	7	9	2
Fire Protection and Other Emergency Services	18	14	-4
Correctional and Detention Services	9	13	4

Source: ABS Census TableBuilder (2011, 16)

Manly

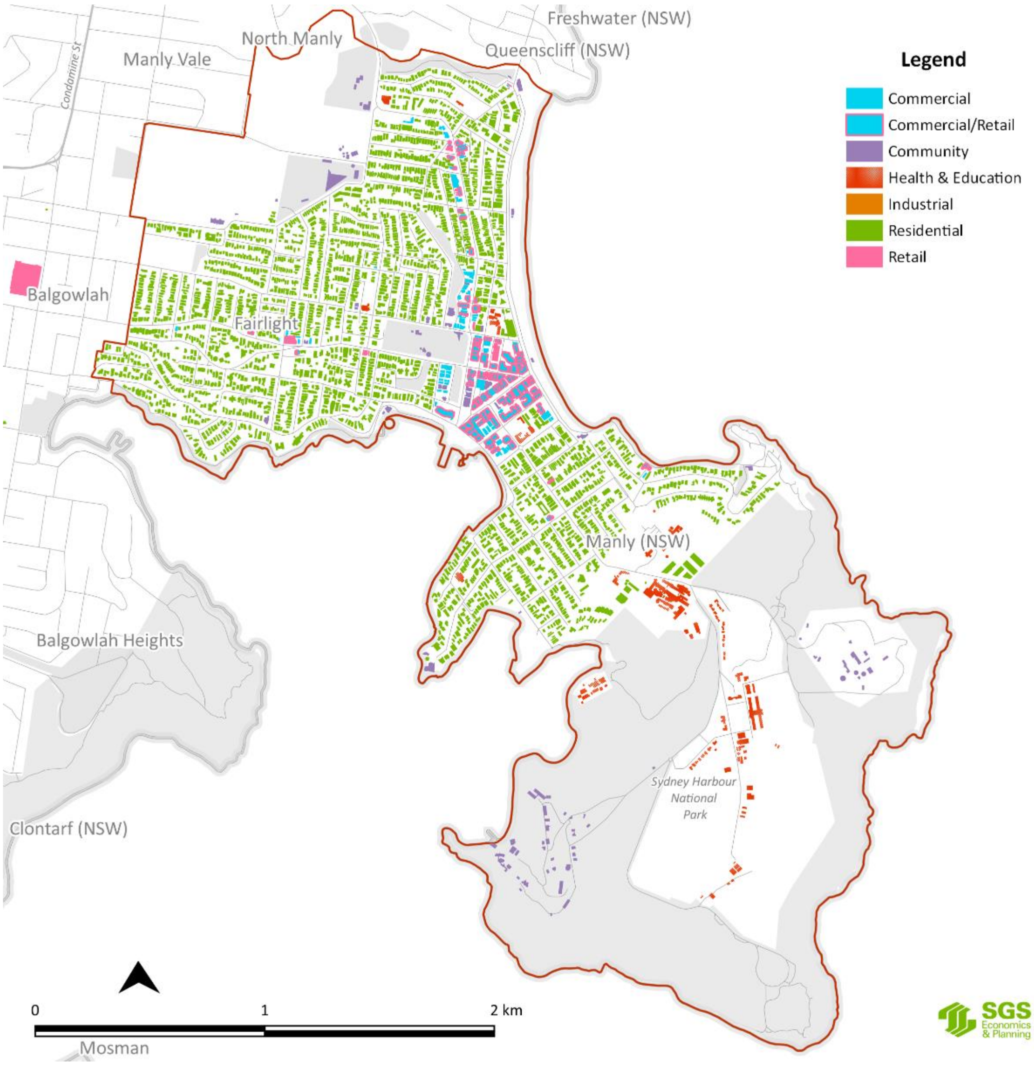
Overview

Manly is one of the largest centres of the Northern Beaches and is a hotspot for retail employment and tourism with its vibrant environment. Manly Beach attracts a variety of people from across Sydney, including visitors domestic and international, to the local area.

While Manly is an attractive precinct, future employment generation is constrained by its existing urban typology, proximity to the foreshore area and Manly Beach, which act as natural boundaries to future development. Manly's employment zones have already largely been built up and function well as a cohesive precinct. There is a collection of cafés and restaurants close to Manly Beach, while the business strips perpendicular to Manly Wharf have a greater focus on knowledge intensive uses.

Land use overview

FIGURE 159: MANLY LAND USE



Source: SGS Economics and Planning, 2019

TABLE 191: MANLY LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	827	0.0%
	Other Food	2,619	0.1%
	Clothing	3,548	0.1%
	Hospitality	11,460	0.4%
	Household goods	2,917	0.1%
	Other Retailing	4,762	0.2%
	Department Stores	566	0.0%
Non-Retail	Residential	1,949,649	73.1%
	Commercial	255,780	9.6%
	Industrial	-	0.0%
	Health & Education	250,751	9.4%
	Community	185,879	7.0%
	Total	2,668,758	100.0%

Source: SGS Economics and Planning, 2019

Residents

Almost +1,400 additional people are projected to be living in Manly over the 20 years between 2016 and 2036. Retirees are the fastest growing age group, while adults and Mature Adults are projected to have the greatest presence compared to any other age group in 2036.

Youth is expected to grow at feeble rate between 2016-36 (3%).

TABLE 192: MANLY AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	1,327	1,464	137	10%
Youth	2,664	2,736	72	3%
Young Adult	3,347	3,599	**257**	8%
Adult	6,785	**6,528**	-257	-4%
Mature Adult	5,041	5,173	135	3%
Retirees	3,176	4,232	**1,047**	**33%**
Total	*22,340*	*23,732*	*1,391*	-

Source: TZP2016 v1.51 (TPA)

Industry

Manly's largest industry by 2036 will be Health Care and Social Assistance (2,470 jobs), closely followed by Accommodation and Food Services (2,209) and Professional, Scientific and Technical Services (2,084 jobs). Education and Training will also be a significant employer (1,236 jobs).

Manufacturing, Transport Postal and Warehousing and Administrative and Support Services are expected to drop into the future, losing -122 jobs between them in the 20 years between 2016 and 2036.

TABLE 193: MANLY EMPLOYMENT PROJECTIONS BY ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	3	14	11	367%*
Mining	-	-	0	-
Manufacturing	107	55	-52	-49%
Electricity, Gas, Water and Waste Services	86	128	42	49%
Construction	583	644	61	10%
Wholesale Trade	101	106	5	5%
Retail Trade	827	903	76	9%
Accommodation and Food Services	1,828	**2,209**	381	21%
Transport, Postal and Warehousing	74	57	-17	-23%
Information Media and Telecommunications	186	182	-4	-2%
Financial and Insurance Services	298	415	117	39%
Rental, Hiring and Real Estate Services	321	383	62	19%
Professional, Scientific and Technical Services	1,371	**2,084**	713	52%
Administrative and Support Services	365	312	-53	-15%
Public Administration and Safety	428	589	161	38%
Education and Training	851	1,236	385	45%
Health Care and Social Assistance	1,990	**2,470**	480	24%
Arts and Recreation Services	237	296	59	25%
Other Services	330	436	106	32%
Total	*9,986*	*12,519*	*2,533*	-

Source: TZP2016 v1.51 (TPA)
*The industry's low amount of jobs means any change to 2036 is extremely significant as a percentage

Employment by BICs reflects the growing presence of the Knowledge Intensive and Health and Education Industry in Manly. However, the Population Serving sector will still be the largest industry in Manly by 2036.

TABLE 194: MANLY EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	2,973	3,963	995	33%
Health and Education	2,839	3,705	868	31%
Population Serving	3,803	**4,489**	683	18%
Industrial	375	367	-10	-3%

Source: TZP2016 v1.51 (TPA)

In terms of international tourism, Manly accounts for a quarter of all international visitors to NSW. The top three visitor markets to Manly in the Year that Ended December 2018 were the United Kingdom (16%), USA (14%) and China (7%). Top activities were ate out at restaurants and cafes (96%), went to the beach (90%), went sightseeing (87%), went shopping for pleasure (82%) and visited national/state parks (66%).

Furthermore, Manly accounts for 3% of all domestic visitors to NSW. They mainly travelled to visit friends and relatives (42%). Their top activities were eating out at restaurants (88%), visiting friends and relatives (55%), going to the beach (51%) and sightseeing (33%).

TABLE 195: TOTAL VISITORS TO MANLY (DOMESTIC AND INTERNATIONAL)

	YE March 2015	YE March 2016	YE March 2017	YE March 2018	4 Year Average
Visitors staying overnight in Manly (000)	161.1	177.1	273.7	205.0	204.2
Domestic day visitors (000)	520.9	500.4	372.4	592.9	496.7
*Total visitors to Manly (000)**	2,164.5	2,256.4	2,308.0	2,566.4	2,323.8

Source: Destination NSW

*Total visitors include those who stayed overnight elsewhere but visited Manly

FIGURE 160: MANLY BEACH

Source: Wikipedia

In terms of the Professional, Scientific & Technical Services industry in Manly, the majority of the jobs there are Computer System Design and Related Services (211 jobs), Architectural Services (134), Management Advice and Related Consulting Services (126), and Legal Services (125).

TABLE 196: MANLY BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Computer System Design and Related Services	211
Architectural Services	134
Management Advice and Related Consulting Services	126
Legal Services	125
Accounting Services	75
Other Specialised Design Services	57
Advertising Services	52
Market Research and Statistical Services	43

Source: ABS Census TableBuilder (2016)

In terms of the Education and Training Industry in Manly, the majority of the jobs are Secondary Education (211), Primary Education (123) and Technical and Vocational Education and Training (104).

TABLE 197: MANLY BREAKDOWN OF EDUCATION AND TRAINING AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Secondary Education	211
Primary Education	123
Technical and Vocational Education and Training	104
Sports and Physical Recreation Instruction	72
Adult, Community and Other Education nec	63
Preschool Education	53

Source: ABS Census TableBuilder (2016)

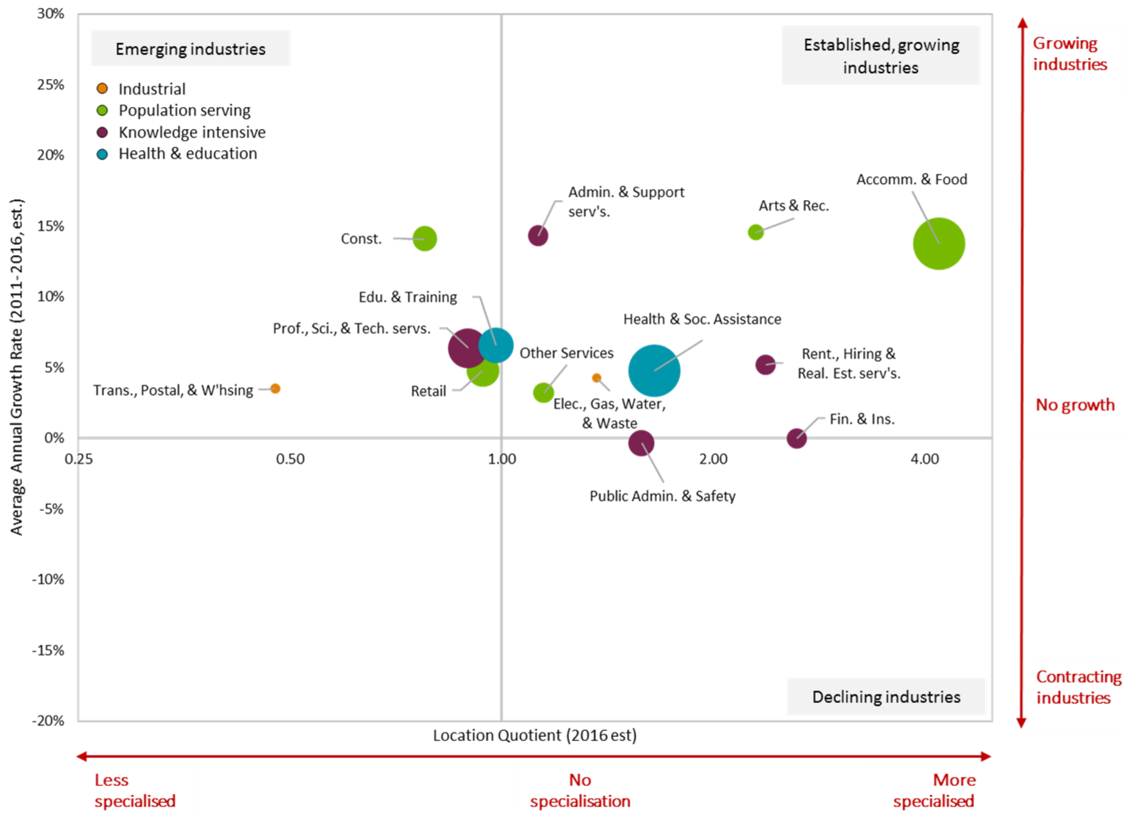
Industry Specialisation

Manly is largely specialised in Accommodation and Food Services. It is also a growing industry. Other specialisations are smaller industries including Arts and Recreation Services, Rental, Hiring and Real Estate Services and Financial and Insurance Services.

Health Care and Social Assistance is one of its largest industries, with an LQ of just below 2.

The share of Retail Trade, Professional, Scientific and Technical Services and Education and Training in Manly are similar to the North District average.

FIGURE 161: LOCATION QUOTIENT OF MANLY COMPARED TO THE NORTH DISTRICT



Source: SGS 2019 using ABS Census TableBuilder (2011, 16)

While Professional, Scientific and Technical Services' presence in Manly is similar to the North District, Architectural Services is shown to have grown significantly in the area by +69 jobs. Furthermore, Computer System Design and Related Services (+29), Management Advice and Related Consulting Services (+22) and Advertising Services (+21) have also grown.

Arts and Recreation Services was a specialised but small industry. Its growth at a sub-industry level has been diverse, but largely in Sports and Physical Recreation (combined total of +34 jobs), followed by Zoological and Botanical Gardens Operation (+17) and Museum Operation (+11).

In terms of Public Administration and Safety, Local Government Administration has declined the most (-36), followed by Police Services (-25). Investigation and Security Services (+16) and Fire Protection and Other Emergency Services (+12) have increased the most.

TABLE 198: MANLY SUB-INDUSTRY CHANGE, 2011-16 (POW)

Industry	Sub-industry	2011 Jobs	2016 Jobs	Change 2011-16
	Professional, Scientific and Technical Services, nfd	3	11	8
	Professional, Scientific and Technical Services (except Computer System Design and Related Services), nfd	4	16	12
	Scientific Research Services	9	12	3
	Architectural, Engineering and Technical Services, nfd	0	3	3
	Architectural Services	65	134	69
Professional, Scientific and	Engineering Design and Engineering Consulting Services	26	37	11
	Other Specialised Design Services	39	57	18

Technical Services	Scientific Testing and Analysis Services	3	10	7
	Legal Services	105	125	20
	Accounting Services	75	75	0
	Advertising Services	48	52	4
	Market Research and Statistical Services	22	43	21
	Management and Related Consulting Services, nfd	0	4	4
	Management Advice and Related Consulting Services	104	126	22
	Professional Photographic Services	20	14	-6
	Other Professional, Scientific and Technical Services nec	6	5	-1
	Computer System Design and Related Services	182	211	29
Arts and Recreation Services	Arts and Recreation Services, nfd	0	3	3
	Museum Operation	3	14	11
	Zoological and Botanical Gardens Operation	0	17	17
	Nature Reserves and Conservation Parks Operation	4	7	3
	Creative Artists, Musicians, Writers and Performers	46	44	-2
	Sports and Physical Recreation Activities, nfd	0	4	4
	Health and Fitness Centres and Gymnasia Operation	13	23	10
	Sports and Physical Recreation Clubs and Sports Professionals	0	11	11
	Sports and Physical Recreation Venues, Grounds and Facilities Operation	16	29	13
Public Administration and Safety	Public Administration, nfd	3	4	1
	Central Government Administration	6	12	6
	State Government Administration	23	28	5
	Local Government Administration	251	215	-36
	Justice	16	4	-12
	Police Services	103	78	-25
	Investigation and Security Services	3	19	16
	Fire Protection and Other Emergency Services	17	29	12
	Other Public Order and Safety Services	0	4	4
	Regulatory Services	0	7	7
	Public Administration, nfd	3	4	1
	Central Government Administration	6	12	6

Source: ABS Census TableBuilder (2011, 16)

Mona Vale

Overview

Mona Vale is a centre containing large-format employment uses across both its business and industrial zones. Some of the larger businesses in the area include Officeworks, Mitre 10, Woolworths and Coles. 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.

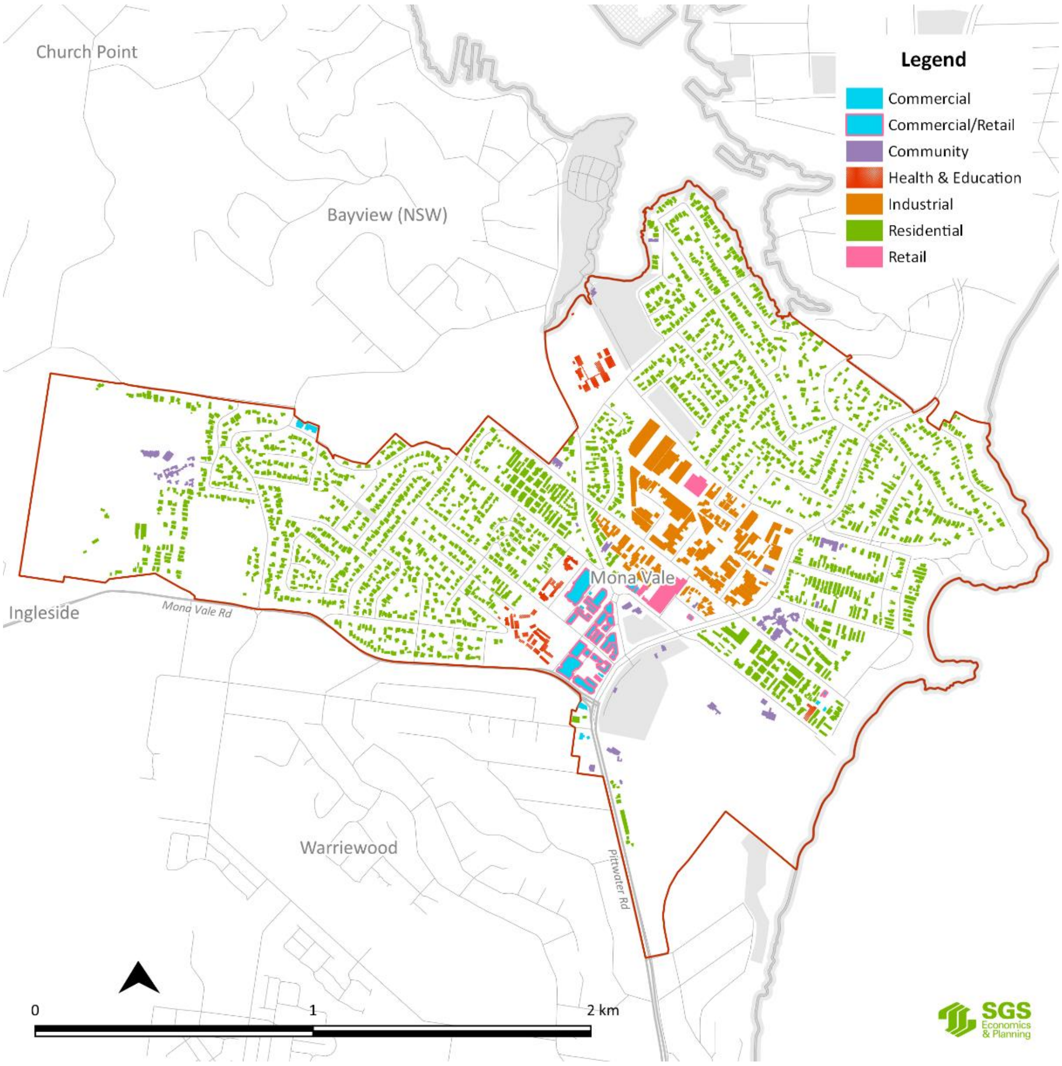
Pittwater Road contains the majority of the smaller-scale businesses suitable for high streets, with a greater mix in the roads adjacent to it. It is a largely population-serving centre characterised by a main street retail strip and surrounded by small-to-medium industrial facilities. The industrial facilities contain a mix of businesses; including offices, production, repair and storage. The industrial facilities appear to be light manufacturing or urban services. There is one stand-alone commercial facility, containing largely health care businesses.

In terms of economic contribution, Retail Trade contributes the most in GVA ($33.08m), followed by Financial and Insurance Services ($28.55m) and Public Administration and Safety ($28.29m). Overall, Mona Vale's IN2 Industrial land contributes $239.16m in GVA. This is slightly lower than the Northern Beaches average of $267.73m, and lower than the Greater Sydney average of $309.03m.

44% of Mona Vale's industrial land is surrounded by residential. This is slightly higher than the Northern Beaches average of 41%, and higher than the Greater Sydney average of 36%.

Land Use overview

FIGURE 162: MONA VALE LAND USE



Source: SGS Economics and Planning, 2019

TABLE 199: MONA VALE LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	6,605	0.7%
	Other Food	2,676	0.3%
	Clothing	2,321	0.2%
	Hospitality	4,329	0.4%
	Household goods	8,175	0.8%
	Other Retailing	1,827	0.2%
	Department Stores	87	0.0%
Non-Retail	Residential	664,619	67.6%
	Commercial	102,341	10.4%
	Industrial	83,906	8.5%
	Health & Education	41,111	4.2%
	Community	65,559	6.7%
	Total	983,557	100.0%

Source: SGS Economics and Planning, 2019

Residents

Approximately +1,100 additional people are projected to be living in the Mona Vale catchment over the 20 years between 2016 and 2036, and most of the growth is projected to be of Retirees. Retirees (2,336) are also projected to be the largest age group by 2036, followed by Mature Adults (1,685) and Adults (1,210).

Youth is expected to grow at feeble rate between 2016-36 (8%).

TABLE 200: MONA VALE AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	350	423	73	21%
Youth	1,069	1,154	84	8%
Young Adult	605	689	84	14%
Adult	1,210	1,380	169	14%
Mature Adult	1,648	1,685	39	2%
Retirees	1,646	**2,336**	**685**	**42%**
Total	*6,528*	*7,667*	*1,134*	-

Source: TZP2016 v1.51 (TPA)

Industry

Mona Vale's largest industry by 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).

Manufacturing is expected to drop into the future, losing -133 jobs in the 20 years between 2016 and 2036.

TABLE 201: MONA VALE EMPLOYMENT PROJECTIONS BY ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	11	6	-5	-45%
Mining	10	11	1	10%
Manufacturing	434	301	-133	-31%
Electricity, Gas, Water and Waste Services	15	15	0	0%
Construction	344	397	53	15%
Wholesale Trade	244	258	14	6%
Retail Trade	1,057	**1,233**	176	17%
Accommodation and Food Services	334	433	99	30%
Transport, Postal and Warehousing	162	119	-43	-27%
Information Media and Telecommunications	19	20	1	5%
Financial and Insurance Services	157	217	60	38%
Rental, Hiring and Real Estate Services	157	187	30	19%
Professional, Scientific and Technical Services	546	**855**	309	57%
Administrative and Support Services	178	188	10	6%
Public Administration and Safety	263	368	105	40%
Education and Training	260	412	152	58%
Health Care and Social Assistance	790	**1,068**	278	35%
Arts and Recreation Services	105	177	72	**69%**
Other Services	438	618	180	41%
Total	*5,524*	*6,883*	*1,359*	-

Source: TZP2016 v1.51 (TPA)

Employment by BICs reflects the growing presence of the Population Serving sector, closely followed by Knowledge Intensive and Health and Education. Population Serving (2,859 jobs) is also expected to be the largest employment industry by 2036.

TABLE 202: 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: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in Mona Vale, the majority of the jobs there are Accounting Services (134 jobs), followed by Computer System Design and Related Services (71) and Legal Services (58).

TABLE 203: MONA VALE BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Accounting Services	134
Computer System Design and Related Services	71
Legal Services	58
Management Advice and Related Consulting Services	29
Other Specialised Design Services	26
Engineering Design and Engineering Consulting Services	23

Source: ABS Census TableBuilder (2016)

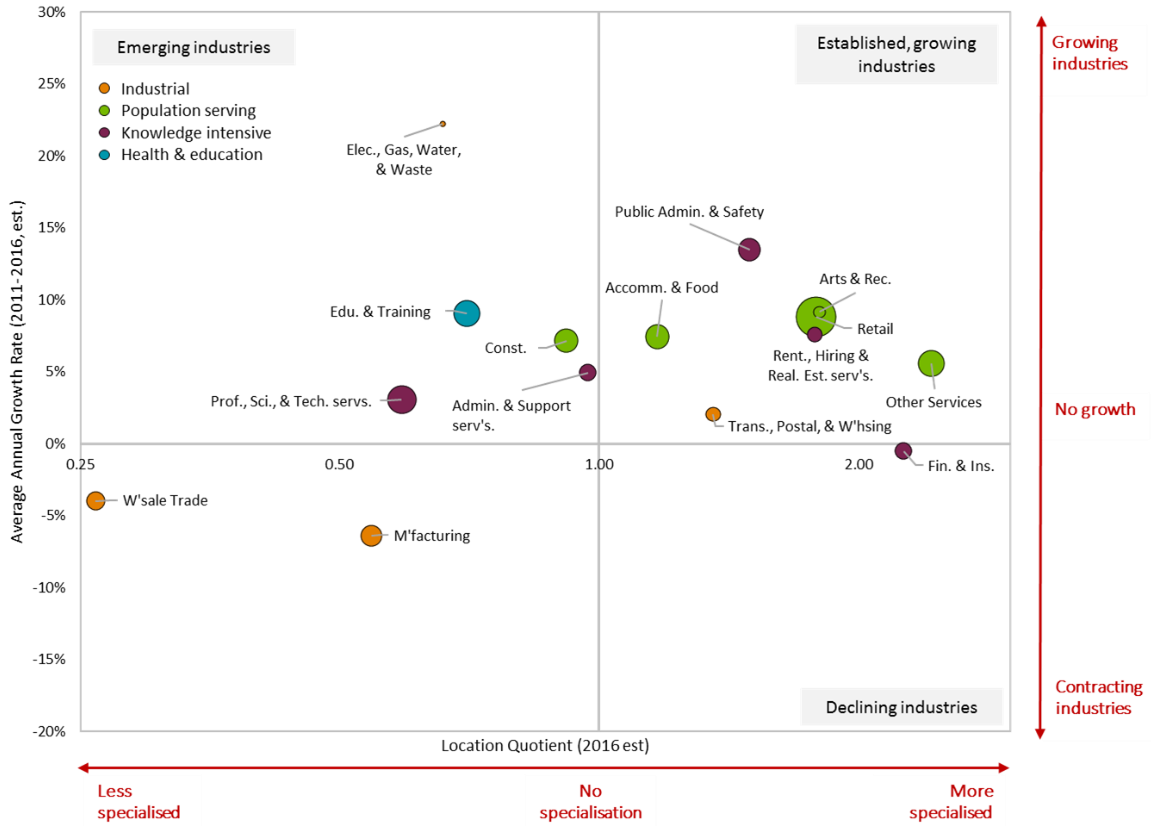
In terms of Education and Training, the highest number of jobs are in Primary Education (128), Secondary Education (111) and Preschool Education (37).

In terms of Arts and Recreation Services, the highest number of jobs are in Health and Fitness Centres and Gymnasia Operation (34), Creative Artists, Musicians, Writers and Performers (15) and Sports and Physical Recreation Clubs and Sports Professionals (13).

Industry Specialisation

Mona Vale is largely specialised in Other Services, however, the industry is much smaller comparatively to the Retail Trade industry. There are a number of other Population Serving industries that are slightly more specialised than the North District in Mona Vale such as Accommodation and Food Services, and Arts and Recreation Services. All of these industries are also growing. Professional, Scientific and Technical Services is the largest Knowledge Intensive industry in Mona Vale, however, it is not specialised compared to the North District.

FIGURE 163: LOCATION QUOTIENT OF MONA VALE COMPARED TO THE NORTH DISTRICT



Source: SGS 2019 using ABS Census TableBuilder (2011, 16)

Hairdressing and Beauty Services has grown significantly in the Other Services industry, adding +52 jobs over the five years between 2011 and 2016. Other Automotive Repair and Maintenance has also increased (+20). Other Machinery and Equipment has declined the most (-9 jobs). Most Other Services sub-industries have shown zero to minimal change.

Within the Public Administration and Safety industry, Local Government Administration (+51 jobs) and State Government Administration (+46 jobs) have increased the most. They are also the largest sub-industries of Public Admin, with 92 and 140 jobs respectively. All other sub-industries have largely remained the same, with a slight decrease in Investigation and Security Services (-2 jobs).

The table below does not include sub-industries which had zero jobs in 2016. Any sub-industries which had zero jobs in 2016 but contained jobs in 2011 have been qualitatively discussed above.

TABLE 204: MONA VALE SUB-INDUSTRY CHANGE, 2011-16 (POW)

Industry	Sub-industry	2011 Jobs	2016 Jobs	Change 2011-16
Other Services	Repair and Maintenance, nfd	12	6	-6
	Automotive Electrical Services	3	5	2
	Automotive Body, Paint and Interior Repair	48	46	-2
	Other Automotive Repair and Maintenance	76	96	20
	Domestic Appliance Repair and Maintenance	6	12	6
	Electronic (except Domestic Appliance) and Precision Equipment Repair and Maintenance	3	9	6
	Clothing and Footwear Repair	3	3	0
	Other Repair and Maintenance nec	3	3	0
	Hairdressing and Beauty Services	71	123	52
	Diet and Weight Reduction Centre Operation	6	3	-3
	Funeral, Crematorium and Cemetery Services	7	12	5
	Laundry and Dry-Cleaning Services	3	6	3
	Other Personal Services nec	13	38	25
	Religious Services	13	12	-1
	Business and Professional Association Services	3	4	1
Public Administration and Safety	Public Administration, nfd	0	7	7
	Central Government Administration	3	10	7
	State Government Administration	94	140	46
	Local Government Administration	41	92	51
	Investigation and Security Services	7	5	-2
	Fire Protection and Other Emergency Services	11	15	4

Source: ABS Census TableBuilder (2011, 16)

13.25 Local centres

Avalon

Avalon is a local beach suburb of predominantly detached housing serviced by a retail strip along Old Barrenjoey Road. The businesses located on the strip are diverse, and include a cinema, restaurants, gyms, supermarkets, and an RSL club.

FIGURE 164: AVALON LAND USE

Source: SGS Economics and Planning, 2019

TABLE 205: AVALON LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	163	0.1%
	Other Food	698	0.2%
	Clothing	1,833	0.6%
	Hospitality	3,582	1.2%
	Household goods	1,689	0.6%
	Other Retailing	1,263	0.4%
	Department Stores	-	0.0%
Non-Retail	Residential	201,819	70.1%
	Commercial	35,637	12.4%
	Industrial	-	0.0%
	Health & Education	15,441	5.4%
	Community	25,865	9.0%
	Total	287,991	100.0%

Source: SGS Economics and Planning, 2019

Avalon's catchment is not projected for much population growth into 2036. Approximately +200 additional people are projected to be living in Avalon over the 20 years between 2016 and 2036, and most of the growth is projected to be of Retirees. Retirees (661) are also projected to be the largest age group by 2036, followed by Mature Adults (607) and Youth (441).

Youth, however, is expected to grow at feeble rate between 2016-36 (1%).

TABLE 206: AVALON AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	111	126	15	14%
Youth	435	441	6	1%
Young Adult	187	200	14	7%
Adult	330	354	24	7%
Mature Adult	631	607	-23	-4%
Retirees	492	661	170	**35%**
Total	*2,186*	*2,389*	*206*	-

Source: TZP2016 v1.51 (TPA)

Avalon's largest industry by 2036 will be Retail Trade (424 jobs), followed by Accommodation and Food Services (312 jobs) and Professional, Scientific and Technical Services (301 jobs).

Professional, Scientific and Technical Services is also projected to grow the most (+109 jobs) over the 20 years between 2016 and 2036, followed by Education and Training (+77 jobs) and Accommodation and Food Services (+72 jobs).

TABLE 207: AVALON EMPLOYMENT PROJECTIONS BY ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	15	8	-7	-47%
Mining	0	0	0	-
Manufacturing	24	14	-10	-42%
Electricity, Gas, Water and Waste Services	5	4	-1	-20%
Construction	94	109	15	16%
Wholesale Trade	31	33	2	6%
Retail Trade	363	**424**	61	17%
Accommodation and Food Services	240	**312**	72	30%
Transport, Postal and Warehousing	14	10	-4	-29%
Information Media and Telecommunications	33	36	3	9%
Financial and Insurance Services	65	89	24	37%
Rental, Hiring and Real Estate Services	80	95	15	19%
Professional, Scientific and Technical Services	192	**301**	**109**	57%
Administrative and Support Services	34	36	2	6%
Public Administration and Safety	21	30	9	43%
Education and Training	131	208	77	59%
Health Care and Social Assistance	179	242	63	35%
Arts and Recreation Services	38	64	26	68%
Other Services	64	91	27	42%
Total	*1,623*	*2,106*	*483*	-

Source: TZP2016 v1.51 (TPA)

Population Serving (1,000 jobs) is expected to be the largest employment industry by 2036, growing by +200 jobs. Knowledge Intensive (587 jobs) and Health and Education (450) are present but significantly lower comparatively to Population Serving.

TABLE 208: AVALON EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	425	587	162	38%
Health and Education	311	450	139	45%
Population Serving	799	**1,000**	200	25%
Industrial	88	69	-20	-23%

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in Avalon, many of the jobs there are Architectural Services (69 jobs), followed by Computer System Design and Related Services (62) and Accounting Services (52).

TABLE 209: AVALON BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

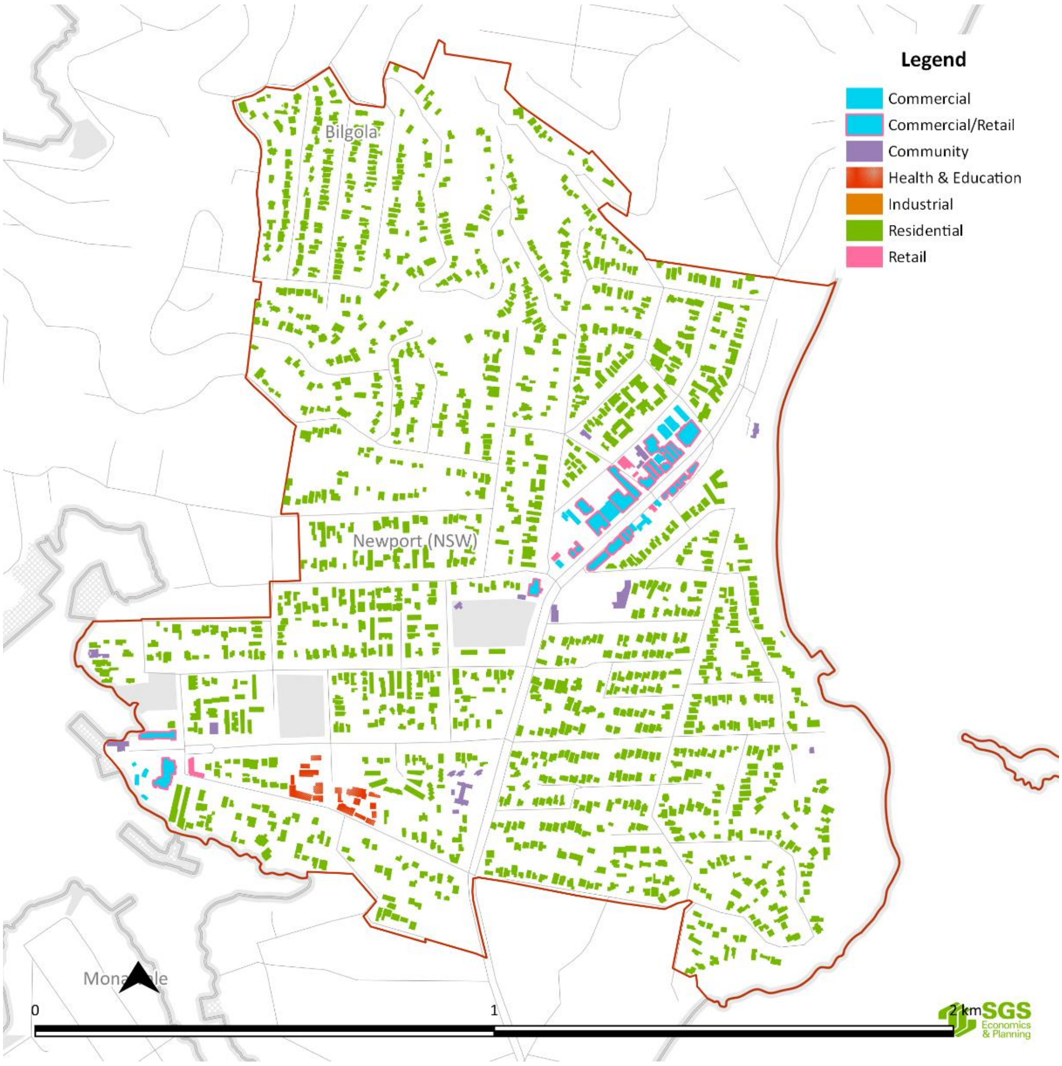
4-digit ANZSIC Employment	2016 Jobs
Architectural Services	69
Computer System Design and Related Services	62
Accounting Services	52
Management Advice and Related Consulting Services	49
Other Specialised Design Services	27
Legal Services	18
Market Research and Statistical Services	15
Advertising Services	14
Engineering Design and Engineering Consulting Services	13
Professional Photographic Services	12

Source: ABS Census TableBuilder (2016)

Newport

Newport is a local beach suburb of detached housing serviced by range of retail and services along Barrenjoey Road. There are a number of cafes, bars and restaurants as well as a Coles, Australia Post Office, and medical/dental/pharmaceutical centres.

FIGURE 165: NEWPORT LAND USE



Source: SGS Economics and Planning, 2019

TABLE 210: NEWPORT LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	720	0.1%
	Other Food	849	0.1%
	Clothing	1,035	0.1%
	Hospitality	4,841	0.6%
	Household goods	821	0.1%
	Other Retailing	1,789	0.2%
	Department Stores	-	0.0%
Non-Retail	Residential	776,822	90.2%
	Commercial	48,944	5.7%
	Industrial	-	0.0%
	Health & Education	9,437	1.1%
	Community	16,145	1.9%
	Total	861,402	100.0%

Source: SGS Economics and Planning, 2019

Newport is not projected for much population growth into 2036. Approximately +600 additional people are projected to be living in the Newport catchment over the 20 years between 2016 and 2036, and most of the growth is projected to be of Retirees. Mature Adults (2,164), however, are projected to be the largest age group by 2036, followed by Retirees (1,505), Youth (1,451) and Adults (1,317).

Youth, however, is expected to grow at feeble rate between 2016-36 (1%), while Mature Adults is expected to be slightly lower than 2016 levels despite their strong presence (-2%).

TABLE 211: NEWPORT AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	422	487	65	15%
Youth	1,401	1,451	49	3%
Young Adult	777	851	74	10%
Adult	1,206	1,317	111	9%
Mature Adult	2,206	**2,164**	-41	-2%
Retirees	1,196	1,505	**311**	**26%**
Total	7,208	7,775	569	-

Source: TZP2016 v1.51 (TPA)

Newport's largest industry by 2036 will be Professional, Scientific and Technical Services (522 jobs), followed by Accommodation and Food Services (383 jobs) and Education and Training (252 jobs).

Professional, Scientific and Technical Services is also projected to grow the most (+190 jobs) over the 20 years between 2016 and 2036, followed by Education and Training (+92 jobs) and Accommodation and Food Services (+88 jobs).

Arts and Recreation Services is expecting the largest % increase in 2036 compared to 2016 job levels.

Manufacturing and Transport, Postal and Warehousing are expected to lose a combined -21 jobs into the future.

TABLE 212: NEWPORT EMPLOYMENT PROJECTIONS BY ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	0	0	0	-
Mining	0	0	0	-
Manufacturing	47	37	-10	-21%
Electricity, Gas, Water and Waste Services	11	11	0	0%
Construction	193	223	30	16%
Wholesale Trade	23	24	1	4%
Retail Trade	204	238	34	17%
Accommodation and Food Services	295	**383**	88	30%
Transport, Postal and Warehousing	40	29	-11	-28%
Information Media and Telecommunications	34	37	3	9%
Financial and Insurance Services	33	46	13	39%
Rental, Hiring and Real Estate Services	55	65	10	18%
Professional, Scientific and Technical Services	332	**522**	190	57%
Administrative and Support Services	66	69	3	5%
Public Administration and Safety	12	18	6	50%
Education and Training	160	**252**	92	58%
Health Care and Social Assistance	146	198	52	36%
Arts and Recreation Services	33	56	23	**70%**
Other Services	85	120	35	41%
Total	1,769	2,328	*559*	-

Source: TZP2016 v1.51 (TPA)

Population Serving (1,021 jobs) is expected to be the largest employment industry by 2036, growing by +210 jobs. Knowledge Intensive (757 jobs) and Health and Education (451) are present but lower comparatively to Population Serving.

TABLE 213: NEWPORT EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	534	757	223	42%
Health and Education	307	451	144	47%
Population Serving	810	**1,021**	210	26%
Industrial	122	100	-21	-17%

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in Newport, many of the jobs there are Computer System Design and Related Services (79), followed by Accounting Services (42) and Management Advice and Related Consulting Services (42).

TABLE 214: NEWPORT BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

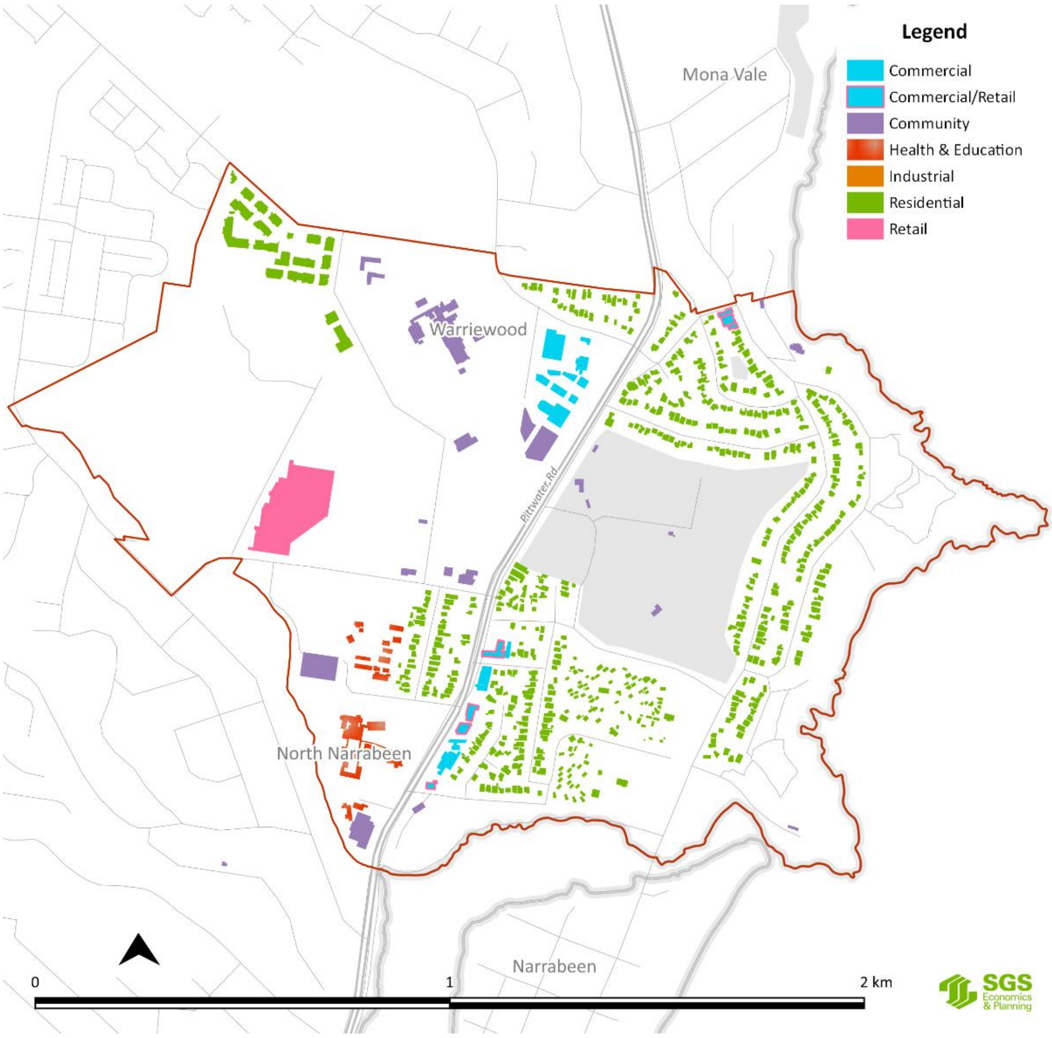
4-digit ANZSIC Employment	2016 Jobs
Computer System Design and Related Services	79
Accounting Services	42
Management Advice and Related Consulting Services	42
Other Specialised Design Services	41
Advertising Services	41
Architectural Services	34

Source: ABS Census TableBuilder (2016)

Warriewood Activity Centre

The distribution of employment land in the suburb of Warriewood is unique. The Warriewood Activity Centre is made up of two separated areas of activity which both contain important uses for the local community. Warriewood Square, a major shopping precinct, occupies the majority of an activity centre.

FIGURE 166: WARIEWOOD ACTIVITY CENTRE LAND USE



Source: SGS Economics and Planning, 2019

TABLE 215: WARRIEWOOD ACTIVITY CENTRE LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	8,719	2.2%
	Other Food	497	0.1%
	Clothing	4,548	1.1%
	Hospitality	1,048	0.3%
	Household goods	1,002	0.3%
	Other Retailing	5,950	1.5%
	Department Stores	7,435	1.9%
Non-Retail	Residential	189,425	47.4%
	Commercial	59,673	14.9%
	Industrial	-	0.0%
	Health & Education	47,998	12.0%
	Community	73,022	18.3%
	Total	399,316	100.0%

Source: SGS Economics and Planning, 2019

The Warriewood Activity Centre catchments are not projected for much population growth into 2036. Approximately +700 additional people are projected to be living in the catchment areas over the 20 years between 2016 and 2036, and most of the growth is projected to be of Adults (+195) and Retirees (+174). Mature Adults (953), however, are projected to be the largest age group by 2036, closely followed by Adults (913) and Youth (742).

Mature Adults, however, is expected to grow at feeble rate between 2016-36 (9%).

TABLE 216: WARRIEWOOD ACTIVITY CENTRE AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	201	271	70	35%
Youth	641	**742**	101	16%
Young Adult	336	422	85	25%
Adult	717	**913**	**195**	27%
Mature Adult	873	**953**	78	9%
Retirees	482	655	174	**36%**
Total	3,250	3,956	703	-

Source: TZP2016 v1.51 (TPA)

The Warriewood Activity Centre's largest industry by 2036 will be Retail Trade (825 jobs), followed by Public Administration and Safety (383 jobs) and Education and Training (336 jobs) and Accommodation and Food Services (304 jobs)

Education and Training is also projected to grow the most (+123 jobs) over the 20 years between 2016 and 2036, followed by Retail Trade (+119 jobs) and Public Administration and Safety (+104 jobs).

Arts and Recreation Services is expecting the largest % increase in 2036 compared to 2016 job levels.

Manufacturing is expected to lose -47 jobs into the future by 2036.

TABLE 217: WARRIEWOOD ACTIVITY CENTRE EMPLOYMENT PROJECTIONS BY ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	35	18	-17	-49%
Mining	0	0	0	-
Manufacturing	154	107	-47	-31%
Electricity, Gas, Water and Waste Services	26	26	0	0%
Construction	158	183	25	16%
Wholesale Trade	59	63	4	7%
Retail Trade	706	**825**	119	17%
Accommodation and Food Services	235	304	69	29%
Transport, Postal and Warehousing	6	4	-2	-33%
Information Media and Telecommunications	76	81	5	7%
Financial and Insurance Services	47	65	18	38%
Rental, Hiring and Real Estate Services	28	34	6	21%
Professional, Scientific and Technical Services	124	194	70	56%
Administrative and Support Services	63	66	3	5%
Public Administration and Safety	259	363	104	40%
Education and Training	213	336	123	58%
Health Care and Social Assistance	152	205	53	35%
Arts and Recreation Services	96	165	69	72%
Other Services	112	158	46	41%
Total	*2,549*	*3,197*	*648*	-

Source: TZP2016 v1.51 (TPA)

Population Serving (1,635 jobs) is expected to be the largest employment industry by 2036, growing by +327 jobs. Knowledge Intensive (804 jobs) and Health and Education (541) are present but lower comparatively to Population Serving.

TABLE 218: WARRIEWOOD ACTIVITY CENTRE EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	597	804	207	35%
Health and Education	364	541	177	49%
Population Serving	1,307	**1,635**	327	25%
Industrial	280	217	-64	-23%

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in the Warriewood Activity Centre, many of the jobs there are Computer System Design and Related Services (79), followed by Accounting Services (42) and Management Advice and Related Consulting Services (42).

TABLE 219: WARRIEWOOD ACTIVITY CENTRE BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Computer System Design and Related Services	79
Accounting Services	42
Management Advice and Related Consulting Services	42
Other Specialised Design Services	41
Advertising Services	41
Architectural Services	34

Source: ABS Census TableBuilder (2016)

In terms of Education and Training, Secondary Education (177 jobs), followed by Primary Education (53) and Sports and Physical Recreation Instruction (16).

Narrabeen

Narrabeen is a local centre which has a much more diverse range of age groups comparatively to other local centres in the Northern Beaches. Its retail hub is also diverse with a major Woolworths, a number of cafes and restaurants as well as other service-based uses. Narrabeen Beach makes this centre an attractive place to live.

FIGURE 167: NARRABEEN LAND USE

Source: SGS Economics and Planning, 2019

TABLE 220: NARRABEEN LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	1,977	0.3%
	Other Food	1,787	0.3%
	Clothing	209	0.0%
	Hospitality	4,481	0.7%
	Household goods	2,752	0.5%
	Other Retailing	1,024	0.2%
	Department Stores	200	0.0%
Non-Retail	Residential	490,530	81.1%
	Commercial	72,531	12.0%
	Industrial	-	0.0%
	Health & Education	14,933	2.5%
	Community	14,763	2.4%
	Total	605,187	100.0%

Source: SGS Economics and Planning, 2019

Approximately +900 additional people are projected to be living in the Narrabeen catchment over the 20 years between 2016 and 2036, and most of the growth is projected to be of Retirees (+423). Mature Adults (2,037), however, are projected to be the largest age group by 2036, followed by Adults (1,850) and Retirees (1,675).

Youth and Mature Adults, however, are expected to grow at a feeble rate between 2016-36 (4 each%).

TABLE 221: NARRABEEN AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	497	552	55	11%
Youth	1,048	1,093	46	4%
Young Adult	860	994	136	16%
Adult	1,782	**1,850**	67	4%
Mature Adult	1,895	**2,037**	143	8%
Retirees	1,252	**1,675**	**423**	**34%**
Total	*7,334*	*8,201*	*870*	-

Source: TZP2016 v1.51 (TPA)

Narrabeen's largest industry by 2036 will be Health Care and Social Assistance (377 jobs), closely followed by Professional, Scientific and Technical Services (363 jobs), Retail Trade (360 jobs) and Accommodation and Food Services (354 jobs).

Professional, Scientific and Technical Services is also projected to grow the most (+121 jobs) over the 20 years between 2016 and 2036, followed by Accommodation and Food Services (+81 jobs) and Health Care and Social Assistance (+57 jobs).

Public Administration and Safety is expecting the largest % increase in 2036 compared to 2016 job levels (+53%), followed by Arts and Recreation Services (+51%).

TABLE 222: NARRABEEN EMPLOYMENT PROJECTIONS BY ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	7	3	-4	-57%
Mining	0	0	0	-
Manufacturing	25	14	-11	-44%
Electricity, Gas, Water and Waste Services	8	10	2	25%
Construction	274	303	29	11%
Wholesale Trade	19	20	1	5%
Retail Trade	336	**360**	24	7%
Accommodation and Food Services	273	**354**	81	30%
Transport, Postal and Warehousing	27	22	-5	-19%
Information Media and Telecommunications	10	11	1	10%
Financial and Insurance Services	47	65	18	38%
Rental, Hiring and Real Estate Services	70	81	11	16%
Professional, Scientific and Technical Services	242	**363**	121	50%
Administrative and Support Services	78	78	0	0%
Public Administration and Safety	51	78	27	53%
Education and Training	113	168	55	49%
Health Care and Social Assistance	320	**377**	57	18%
Arts and Recreation Services	63	95	32	51%
Other Services	100	138	38	38%
Total	*2,063*	*2,540*	*477*	-

Source: TZP2016 v1.51 (TPA)

Population Serving (1,250 jobs) is expected to be the largest employment industry by 2036, growing by +327 jobs. Knowledge Intensive (677 jobs) and Health and Education (545) are present but lower comparatively to Population Serving.

TABLE 223: NARRABEEN EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	498	677	179	36%
Health and Education	434	545	111	26%
Population Serving	1,046	**1,250**	205	20%
Industrial	85	70	-16	-19%

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in Narrabeen, many of the jobs there are Accounting Services (59 jobs), Computer System Design and Related Services (39 jobs) and Management Advice and Related Consulting Services (18 jobs).

TABLE 224: NARRABEEN BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

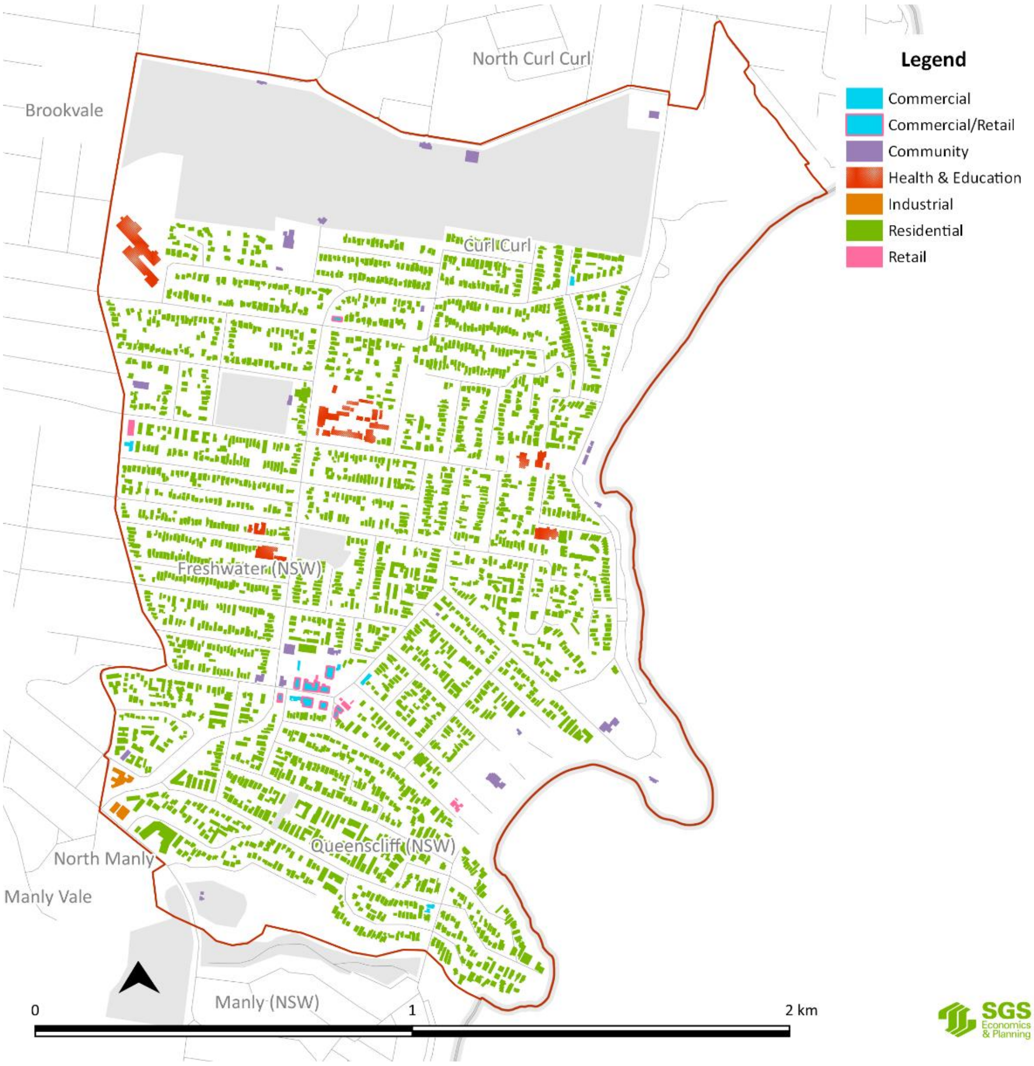
4-digit ANZSIC Employment	2016 Jobs
Accounting Services	59
Computer System Design and Related Services	39
Management Advice and Related Consulting Services	18
Professional Photographic Services	18
Legal Services	16
Architectural Services	15

Source: ABS Census TableBuilder (2016)

Freshwater

Freshwater is a local centre known for its attractive beach lifestyle. Its retail strip is approximately 400m from the shore of the beach. It contains a number of bars, cafes and restaurants, as well as other population-serving uses such as medical centres, clothing and accessories, and fitness studios.

FIGURE 168: FRESHWATER LAND USE



Source: SGS Economics and Planning, 2019

TABLE 225: FRESHWATER LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	-	0.0%
	Other Food	666	0.1%
	Clothing	726	0.1%
	Hospitality	669	0.1%
	Household goods	378	0.0%
	Other Retailing	683	0.1%
	Department Stores	-	0.0%
Non-Retail	Residential	795,536	88.1%
	Commercial	12,425	1.4%
	Industrial	2,314	0.3%
	Health & Education	55,979	6.2%
	Community	33,600	3.7%
	Total	902,975	100.0%

Source: SGS Economics and Planning, 2019

Approximately +300 additional people are projected to be living in the Narrabeen catchment over the 20 years between 2016 and 2036, and most of the growth is projected to be of Retirees (+215). Adults (2,702), however, are projected to be the largest age group by 2036, followed by Mature Adults (2,061) and Young Adults (1,480).

Despite Mature Adults being the largest age group in both 2016 and 2036, they are also projected to decline the most over the 20 years between them (-6%), followed by Youth (-1%).

TABLE 226: FRESHWATER AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	619	625	6	1%
Youth	1,261	1,244	-17	-1%
Young Adult	1,330	1,480	148	11%
Adult	2,876	**2,702**	-174	**-6%**
Mature Adult	1,963	**2,061**	99	5%
Retirees	878	1,092	**215**	24%
Total	*8,927*	*9,204*	*277*	-

Source: TZP2016 v1.51 (TPA)

Freshwater's largest industry by 2036 will be Professional, Scientific and Technical Services (306 jobs), followed by Accommodation and Food Services (259 jobs) and Education and Training (239 jobs).

Professional, Scientific and Technical Services is also projected to grow the most (+97 jobs) over the 20 years between 2016 and 2036, followed by Education and Training (+71 jobs) and Accommodation and Food Services (+58 jobs).

Public Administration and Safety is expecting the largest % increase in 2036 compared to 2016 job levels (+54%).

TABLE 227: FRESHWATER EMPLOYMENT PROJECTIONS BY ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	5	4	-1	-20%
Mining	0	0	0	-
Manufacturing	17	12	-5	-29%
Electricity, Gas, Water and Waste Services	0	0	0	-
Construction	199	214	15	8%
Wholesale Trade	24	25	1	4%
Retail Trade	143	151	8	6%
Accommodation and Food Services	201	**259**	58	29%
Transport, Postal and Warehousing	25	21	-4	-16%
Information Media and Telecommunications	24	24	0	0%
Financial and Insurance Services	31	42	11	35%
Rental, Hiring and Real Estate Services	62	72	10	16%
Professional, Scientific and Technical Services	209	**306**	97	46%
Administrative and Support Services	65	63	-2	-3%
Public Administration and Safety	13	20	7	54%
Education and Training	168	**239**	71	42%
Health Care and Social Assistance	118	135	17	14%
Arts and Recreation Services	36	49	13	36%
Other Services	92	126	34	37%
Total	*1,432*	*1,762*	*330*	-

Source: TZP2016 v1.51 (TPA)

Population Serving (798 jobs) is expected to be the largest employment industry by 2036, growing by +129 jobs. Knowledge Intensive (539 jobs) and Health and Education (374 jobs) are present but lower comparatively to Population Serving.

TABLE 228: FRESHWATER EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	405	529	124	31%
Health and Education	286	374	88	31%
Population Serving	669	**798**	129	19%
Industrial	71	62	-10	-14%

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in Freshwater, many of the jobs there are Computer System Design and Related Services (60 jobs), followed by Management Advice and Related Consulting Services (48 jobs), and Accounting Services (32 jobs).

TABLE 229: FRESHWATER BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Computer System Design and Related Services	60
Management Advice and Related Consulting Services	48
Accounting Services	32
Other Specialised Design Services	31
Architectural Services	22
Legal Services	18

Source: ABS Census TableBuilder (2016)

In terms of the Education and Training industry in Freshwater, many of the jobs are in Primary Education (122 jobs), Secondary Education (70), Preschool Education (43) and Sports and Physical Recreation Instruction (32).

TABLE 230: FRESHWATER BREAKDOWN OF EDUCATION AND TRAINING AT A 4-DIGIT ANZSIC, 2016 (POW)

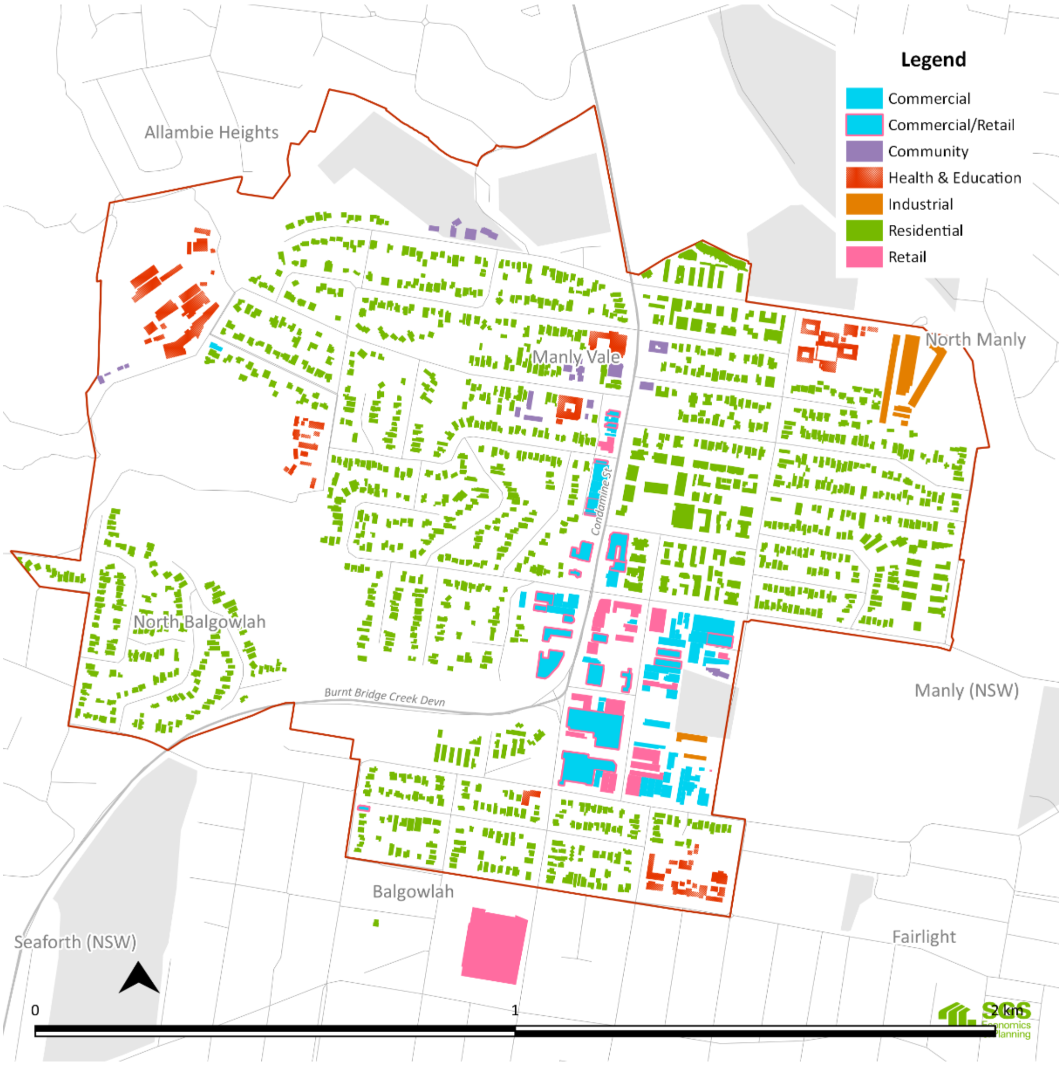
4-digit ANZSIC Employment	2016 Jobs
Primary Education	122
Secondary Education	70
Preschool Education	43
Sports and Physical Recreation Instruction	32
Adult, Community and Other Education nec	27
Combined Primary and Secondary Education	17
Arts Education	16

Source: ABS Census TableBuilder (2016)

Manly Vale

Manly Vale is an inland local centre of the Northern Beaches which contains a number of large-format employment buildings such Bunnings, Fantastic Furniture, Harvey Norman, and Forty Winks in addition to small-scale retail and services. The neighbourhood is predominantly detached houses.

FIGURE 169: MANLY VALE LAND USE



Source: SGS Economics and Planning, 2019

TABLE 231: MANLY VALE LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	948	0.2%
	Other Food	592	0.1%
	Clothing	348	0.1%
	Hospitality	5,415	0.9%
	Household goods	12,377	2.1%
	Other Retailing	1,403	0.2%
	Department Stores	3,138	0.5%
Non-Retail	Residential	403,876	67.4%
	Commercial	70,462	11.8%
	Industrial	7,884	1.3%
	Health & Education	81,130	13.5%
	Community	12,011	2.0%
	Total	**599,581**	**100.0%**

Source: SGS Economics and Planning, 2019

Approximately +450 additional people are projected to be living in the Manly Vale catchment over the 20 years between 2016 and 2036, and most of the growth is projected to be of Retirees (+287). Adults (2,147), however, are projected to be the largest age group by 2036, followed by Mature Adults (1,996) and Youth (1,383).

Despite Adults being the largest age group in both 2016 and 2036, they are also projected to decline the most over the 20 years between them (-5%).

TABLE 232: MANLY VALE AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	663	690	27	4%
Youth	1,375	1,383	7	1%
Young Adult	918	1,037	120	13%
Adult	2,257	**2,147**	-108	-5%
Mature Adult	1,877	**1,996**	116	6%
Retirees	882	1,169	287	33%
Total	*7,972*	*8,422*	*449*	-

Source: TZP2016 v1.51 (TPA)

Manly Vale's largest industry by 2036 will be Retail Trade (714 jobs), followed by Education and Training (583 jobs), Professional, Scientific and Technical Services (513 jobs) and Construction (392 jobs).

Education and Training is also projected to grow the most (+177 jobs) over the 20 years between 2016 and 2036, followed by Professional, Scientific and Technical Services (+167 jobs) and Retail Trade (+53 jobs).

Professional, Scientific and Technical Services is expecting the largest % increase in 2036 compared to 2016 job levels (+48%), while Manufacturing will have the least (-37%).

TABLE 233: MANLY VALE EMPLOYMENT PROJECTIONS BY ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	1	1	0	0%
Mining	0	0	0	-
Manufacturing	228	144	-84	-37%
Electricity, Gas, Water and Waste Services	14	19	5	36%
Construction	360	392	32	9%
Wholesale Trade	120	127	7	6%
Retail Trade	661	**714**	53	8%
Accommodation and Food Services	129	164	35	27%
Transport, Postal and Warehousing	44	35	-9	-20%
Information Media and Telecommunications	56	55	-1	-2%
Financial and Insurance Services	74	102	28	38%
Rental, Hiring and Real Estate Services	48	55	7	15%
Professional, Scientific and Technical Services	346	**513**	167	48%
Administrative and Support Services	108	101	-7	-6%
Public Administration and Safety	117	168	51	44%
Education and Training	406	**583**	177	44%
Health Care and Social Assistance	319	370	51	16%
Arts and Recreation Services	28	38	10	36%
Other Services	122	164	42	34%
Total	*3,181*	*3,745*	*564*	-

Source: TZP2016 v1.51 (TPA)

Population Serving (1,472 jobs) is still expected to be the largest employment industry by 2036, growing by +171 jobs.

However, Knowledge Intensive and Health and Education are expecting the largest increases in employment over the 20 years between 2016 and 2036 (+249 and +228 jobs respectively).

TABLE 234: MANLY VALE EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	748	997	249	33%
Health and Education	725	952	228	31%
Population Serving	1,301	**1,472**	171	13%
Industrial	405	327	-80	-20%

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in Manly Vale, many of the jobs there are Computer System Design and Related Services (39 jobs), followed by Accounting Services (38 jobs), Management Advice and Related Consulting Services (30 jobs), and Other Specialised Design Services (28 jobs).

TABLE 235: MANLY VALE BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Computer System Design and Related Services	39
Accounting Services	38
Management Advice and Related Consulting Services	30
Other Specialised Design Services	28
Engineering Design and Engineering Consulting Services	23
Advertising Services	15

Source: ABS Census TableBuilder (2016)

Balgowlah

Balgowlah is an inherently local population-serving centre anchored by the Stockland Shopping Centre.

FIGURE 170: BALGOWLAH LAND USE

Source: SGS Economics and Planning, 2019

TABLE 236: BALGOWLAH LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	5,572	0.8%
	Other Food	1,350	0.2%
	Clothing	1,583	0.2%
	Hospitality	3,296	0.5%
	Household goods	2,595	0.4%
	Other Retailing	1,255	0.2%
	Department Stores	-	0.0%
Non-Retail	Residential	582,408	85.2%
	Commercial	49,391	7.2%
	Industrial	-	0.0%
	Health & Education	27,310	4.0%
	Community	8,759	1.3%
	Total	683,517	100.0%

Source: SGS Economics and Planning, 2019

Approximately +550 additional people are projected to be living in the Balgowlah catchment over the 20 years between 2016 and 2036, and most of the growth is projected to be of Retirees (+374). Mature Adults (1,781), however, are projected to be the largest age group by 2036, followed by Adults (1,745) and Retirees (1,417).

Despite Adults being one of largest age groups in both 2016 and 2036, they are also projected to decline the most over the 20 years between them (-4%).

TABLE 237: BALGOWLAH AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	564	637	73	13%
Youth	1,249	1,289	39	3%
Young Adult	623	691	68	11%
Adult	1,745	1,681	-63	-4%
Mature Adult	1,781	**1,852**	70	4%
Retirees	1,044	1,417	**374**	36%
Total	7,006	7,567	561	-

Source: TZP2016 v1.51 (TPA)

Balgowlah's largest industry by 2036 will be Retail Trade (549 jobs), followed by Health Care and Social Assistance (424 jobs) and Professional, Scientific and Technical Services (346 jobs).

Professional, Scientific and Technical Services is also projected to grow the most (+118 jobs) over the 20 years between 2016 and 2036, followed by Health Care and Social Assistance (+83 jobs) and Education and Training (+72 jobs).

Agriculture, Forestry and Fishing aside; Professional, Scientific and Technical Services is expecting the largest % increase in 2036 compared to 2016 job levels (+52%), while Manufacturing will have the least (-48%).

TABLE 238: BALGOWLAH EMPLOYMENT PROJECTIONS BY ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	1	3	2	200%*
Mining	0	0	0	-
Manufacturing	23	12	-11	-48%
Electricity, Gas, Water and Waste Services	0	0	0	-
Construction	161	178	17	11%
Wholesale Trade	5	5	0	0%
Retail Trade	505	**549**	44	9%
Accommodation and Food Services	176	213	37	21%
Transport, Postal and Warehousing	14	12	-2	-14%
Information Media and Telecommunications	9	9	0	0%
Financial and Insurance Services	46	64	18	39%
Rental, Hiring and Real Estate Services	142	169	27	19%
Professional, Scientific and Technical Services	228	**346**	118	52%
Administrative and Support Services	120	102	-18	-15%
Public Administration and Safety	14	19	5	36%
Education and Training	160	232	72	45%
Health Care and Social Assistance	341	**424**	83	24%
Arts and Recreation Services	65	81	16	25%
Other Services	120	159	39	33%
Total	*2,130*	*2,577*	*447*	-

Source: TZP2016 v1.51 (TPA)

*The industry's low amount of jobs means any change to 2036 is extremely significant as a percentage

Population Serving (1,181 jobs) is still expected to be the largest employment industry by 2036, growing by +155 jobs. However, Knowledge Intensive and Health and Education are expecting similar increases in employment over the 20 years between 2016 and 2036 (+150 and +155 jobs respectively).

TABLE 239: BALGOWLAH EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	559	709	150	27%
Health and Education	501	656	155	31%
Population Serving	1,026	**1,181**	155	15%
Industrial	43	30	-13	-30%

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in Balgowlah, many of the jobs there are Management Advice and Related Consulting Services (30 jobs), Legal Services (21), Computer System Design and Related Services (21) and Accounting Services (18).

TABLE 240: BALGOWLAH BREAKDOWN OF PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

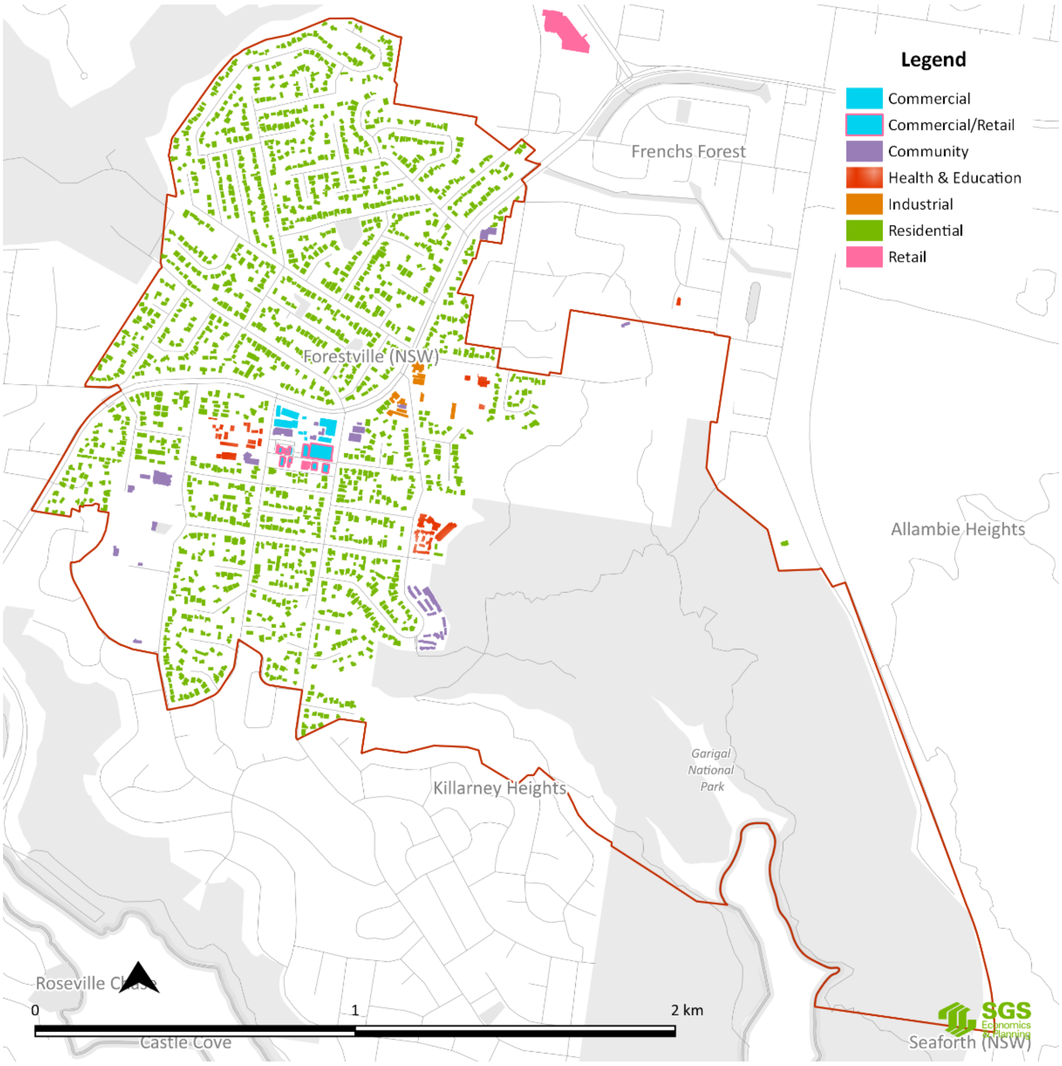
4-digit ANZSIC Employment	2016 Jobs
Management Advice and Related Consulting Services	30
Legal Services	21
Computer System Design and Related Services	21
Accounting Services	18
Architectural Services	11

Source: ABS Census TableBuilder (2016)

Forestville

Forestville is small-scale centre located below the major centre of Frenchs Forest. Its retail centre is anchored by 'The Centre' shopping mall which contains a major Coles supermarket, along with a number of cafes, restaurants and other retail uses along the Centre parade.

FIGURE 171: FORESTVILLE LAND USE



Source: SGS Economics and Planning, 2019

TABLE 241: FORESTVILLE LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	1,464	0.3%
	Other Food	239	0.0%
	Clothing	101	0.0%
	Hospitality	1,254	0.2%
	Household goods	387	0.1%
	Other Retailing	1,386	0.3%
	Department Stores	78	0.0%
Non-Retail	Residential	408,533	81.3%
	Commercial	30,871	6.1%
	Industrial	6,703	1.3%
	Health & Education	24,847	4.9%
	Community	26,824	5.3%
	Total	**502,687**	**100.0%**

Source: SGS Economics and Planning, 2019

Approximately +300 additional people are projected to be living in the Forestville catchment over the 20 years between 2016 and 2036, and most of the growth is projected to be of Retirees (+357). Retirees (1,654) are also projected to be the largest age group by 2036, followed by Mature Adults (1,514) and Youth (1,403).

Adults (1,068) are projected to decline the most over the 20 years between 2016 and 2036 (-9%).

TABLE 242: FORESTVILLE AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	350	346	-4	-1%
Youth	1,446	1,403	-44	-3%
Young Adult	388	437	50	13%
Adult	1,174	1,068	-108	-9%
Mature Adult	1,467	1,514	46	3%
Retirees	1,300	1,654	357	27%
Total	*6,125*	*6,422*	*297*	-

Source: TZP2016 v1.51 (TPA)

Forestville's largest industry by 2036 will be Education and Training (381 jobs), followed by Health Care and Social Assistance (358 jobs), Professional, Scientific and Technical Services (334 jobs) and Retail Trade (251 jobs).

Education and Training is also projected to grow the most (+114 jobs) over the 20 years between 2016 and 2036, followed by Professional, Scientific and Technical Services (+105 jobs).

Public Administration and Safety is expecting the largest % increase in 2036 compared to 2016 job levels (+53%), while Manufacturing will have the least (-39%).

TABLE 243: FORESTVILLE EMPLOYMENT PROJECTIONS BY ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	1	1	0	0%
Mining	0	0	0	-
Manufacturing	23	14	-9	-39%
Electricity, Gas, Water and Waste Services	4	5	1	25%
Construction	149	161	12	8%
Wholesale Trade	18	19	1	6%
Retail Trade	238	251	13	5%
Accommodation and Food Services	145	188	43	30%
Transport, Postal and Warehousing	27	22	-5	-19%
Information Media and Telecommunications	10	10	0	0%
Financial and Insurance Services	23	32	9	39%
Rental, Hiring and Real Estate Services	39	44	5	13%
Professional, Scientific and Technical Services	229	**334**	105	46%
Administrative and Support Services	43	42	-1	-2%
Public Administration and Safety	45	69	24	53%
Education and Training	267	**381**	114	43%
Health Care and Social Assistance	315	**358**	43	14%
Arts and Recreation Services	26	36	10	38%
Other Services	100	137	37	37%
Total	*1,702*	*2,104*	*402*	-

Source: TZP2016 v1.51 (TPA)

Employment across the four Broader Industries is unique to other small centres. Population Serving (774 jobs) and Health and Education (739 jobs) are the largest industries, followed by Knowledge Intensive (532 jobs).

Health and Education is expected the most growth in total (+157 jobs), however, Knowledge Intensive is expecting the largest % increase by 2036 compared to 2016 job levels (+37%).

TABLE 244: FORESTVILLE EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	389	532	143	37%
Health and Education	582	**739**	157	27%
Population Serving	660	**774**	114	17%
Industrial	71	61	-11	-15%

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in Forestville, many of the jobs there are Accounting Services (42 jobs), followed by Computer System Design and Related Services (37), Legal Services (28) and Veterinary Services (20).

TABLE 245: FORESTVILLE BREAKDOWN PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Accounting Services	42
Computer System Design and Related Services	37
Legal Services	28
Veterinary Services	20
Engineering Design and Engineering Consulting Services	18

Source: ABS Census TableBuilder (2016)

In terms of the Education and Training industry in Forestville, many of the jobs are in Primary Education (120), Preschool Education (25) and Special School Education (25).

TABLE 246: FORESTVILLE BREAKDOWN EDUCATION AND TRAINING AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Primary Education	120
Preschool Education	25
Special School Education	25
Adult, Community and Other Education nec	21
Sports and Physical Recreation Instruction	19
Secondary Education	16

Source: ABS Census TableBuilder (2016)

Belrose

Belrose centre is functioning well with its mix of business types. The Belrose catchment contains Glenrose shopping village and surrounding residential areas.

Approximately +130 net additional people are projected to be living in the Belrose catchment over the 20 years between 2016 and 2036, and most of the growth is projected to be of Retirees (+220). Retirees (1,163) are also projected to be the largest age group by 2036, followed by Mature Adults (1,161) and Youth (1,067).

Adults (770) are projected to decline the most over the 20 years between 2016 and 2036 (-10%).

TABLE 247: BELROSE AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	564	637	73	13%
Youth	1,249	1,289	39	3%
Young Adult	623	691	68	11%
Adult	1,745	1,681	-63	-4%
Mature Adult	1,781	**1,852**	70	4%
Retirees	1,044	1,417	**374**	36%
Total	7,006	7,567	561	-

Source: TZP2016 v1.51 (TPA)

Belrose's largest industry by 2036 will be Retail Trade (282 jobs), followed by Health Care and Social Assistance (217 jobs) and Accommodation and Food Services (182 jobs).

Professional, Scientific and Technical Services is also projected to grow the most (+46 jobs) over the 20 years between 2016 and 2036, followed by Accommodation and Food Services (+41 jobs) and Education and Training (+34 jobs).

Public Administration and Safety is expecting the largest % increase in 2036 compared to 2016 job levels (+51%), while Manufacturing will have the least (-30%).

TABLE 248: BELROSE EMPLOYMENT PROJECTIONS BY ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	0	0	0	-
Mining	0	0	0	-
Manufacturing	20	14	-6	-30%
Electricity, Gas, Water and Waste Services	0	0	0	-
Construction	86	93	7	8%
Wholesale Trade	12	13	1	8%
Retail Trade	267	**282**	15	6%
Accommodation and Food Services	141	182	41	29%
Transport, Postal and Warehousing	13	11	-2	-15%
Information Media and Telecommunications	16	17	1	6%
Financial and Insurance Services	9	13	4	44%
Rental, Hiring and Real Estate Services	20	23	3	15%
Professional, Scientific and Technical Services	99	**145**	46	46%
Administrative and Support Services	38	37	-1	-3%
Public Administration and Safety	35	53	18	51%
Education and Training	78	112	34	44%
Health Care and Social Assistance	191	**217**	26	14%
Arts and Recreation Services	56	75	19	34%
Other Services	72	100	28	39%
Total	*1,153*	*1,387*	*234*	-

Source: TZP2016 v1.51 (TPA)

Population Serving (732 jobs) is still expected to be the largest employment industry by 2036, growing by +109 jobs.

Knowledge Intensive and Health and Education are expecting slightly lower increases in employment over the 20 years between 2016 and 2036 (+70 and +60 jobs respectively).

TABLE 249: BELROSE EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	215	284	70	33%
Health and Education	270	329	60	22%
Population Serving	623	732	109	17%
Industrial	46	37	-9	-20%

Source: TZP2016 v1.51 (TPA)

13.26 Business and industrial Parks

Warriewood Business Park

The Warriewood Business Park catchment contains a heavy business and industrial precinct. It contains a number of large-format employment uses. Some of its larger businesses are geared towards medical and pharmaceutical product manufacturing such as Plunketts Pharmaceutical, Blackmores and Nature's Way, in addition to large-format retail supply stores such as The Shelving Shop, Footprint Books, and North Shore Timer and Hardware.

Its economic contribution is largely derived from Manufacturing ($132.47m), Construction ($67.84m) and Wholesale Trade ($59.30m). Overall, Warriewood Valley contributes a total of $470.77m in GVA. This is significantly higher than both the Northern Beaches average ($267.73m) and Greater Sydney average ($309.03m).

24% of Warriewood Valley's industrial land is surrounded by residential uses within a 100m buffer. This is significantly lower than the Northern Beaches average (41%) and Greater Sydney (36%).

Land use overview

FIGURE 172: WARRIEWOOD BUSINESS PARK LAND USE

Source: SGS Economics and Planning, 2019

TABLE 250: WARRIEWOOD BUSINESS PARK LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	-	0.0%
	Other Food	-	0.0%
	Clothing	-	0.0%
	Hospitality	2,023	0.3%
	Household goods	1,012	0.2%
	Other Retailing	-	0.0%
	Department Stores	-	0.0%
Non-Retail	Residential	342,444	56.0%
	Commercial	123,030	20.1%
	Industrial	56,423	9.2%
	Health & Education	16,467	2.7%
	Community	70,516	11.5%
	Total	611,915	100.0%

Source: SGS Economics and Planning, 2019

Residents

Only +929 additional people are projected to be living in the Warriewood Business Park catchment over the 20 years between 2016 and 2036. Retirees are both the fastest growing age group (+454) and projected to be the largest age group by 2036 (1,345). Retirees are closely followed by Mature Adults (1,133), Youth (1,057) and Adults (942).

TABLE 251: WARRIEWOOD BUSINESS PARK AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	245	309	64	26%
Youth	938	1,057	119	13%
Young Adult	317	380	63	20%
Adult	790	942	150	19%
Mature Adult	1,052	1,133	79	8%
Retirees	890	**1,345**	**454**	51%
Total	*4,232*	*5,166*	*929*	-

Source: TZP2016 v1.51 (TPA)

Industry

Warriewood Business Park's largest industry by 2036 will be Manufacturing (3,903 jobs), significantly higher than any other industry. This was also the case in 2016. Furthermore, the Professional, Scientific and Technical Services Industry is projected to grow significantly more than any other industry into the future, with an additional +229 jobs over the 20 years between 2016 and 2036.

Other large industries in the Warriewood Business Park by 2036 will be Construction (854 jobs), Professional, Scientific and Technical Services (631 jobs), Health Care and Social Assistance (529 jobs) and Wholesale Trade (463 jobs)

Arts and Recreation Services is projected for the largest % increase by 2036 compared to 2016 job levels (+71%), followed by Education and Training (+58%) and Professional, Scientific and Technical Services (+57%).

Despite being the largest industry by 2036, Manufacturing is expected to drop significantly into the future, losing -271 jobs in the 20 years between 2016 and 2036.

TABLE 252: WARRIEWOOD BUSINESS PARK EMPLOYMENT PROJECTIONS BY 1-DIGIT ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	16	8	-8	-50%
Mining	11	13	2	18%
Manufacturing	1217	**946**	-271	-22%
Electricity, Gas, Water and Waste Services	21	21	0	0%
Construction	739	**854**	115	16%
Wholesale Trade	437	463	26	6%
Retail Trade	298	348	50	17%
Accommodation and Food Services	224	291	67	30%
Transport, Postal and Warehousing	114	84	-30	-26%
Information Media and Telecommunications	48	51	3	6%
Financial and Insurance Services	42	58	16	38%
Rental, Hiring and Real Estate Services	57	68	11	19%
Professional, Scientific and Technical Services	402	**631**	229	57%
Administrative and Support Services	124	131	7	6%
Public Administration and Safety	23	32	9	39%
Education and Training	137	217	80	58%
Health Care and Social Assistance	383	519	136	36%
Arts and Recreation Services	21	36	15	71%
Other Services	113	159	46	41%
Total	*4,427*	*4,930*	*503*	-

Source: TZP2016 v1.51 (TPA)

Employment by BICs reflects strong employment across all four Broader Industries, leaning towards Population Serving (1,688) and Industrial (1,534).

While Population Serving is projected for the largest growth total (+293 jobs), Health and Education is projected for the largest % increase by 2036 compared to 2016 job levels (+41%), closely followed by Knowledge Intensive (+40%).

Industrial is projected to lose -283 jobs by 2036.

TABLE 253: WARRIEWOOD BUSINESS PARK EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	696	971	275	40%
Health and Education	521	736	215	41%
Population Serving	1,395	**1,688**	293	21%
Industrial	1,817	**1,534**	-283	-16%

Source: TZP2016 v1.51 (TPA)

Due to the Warriewood Business Park containing a significant extent of industrial land, there is merit in analysing changes to the Industrial industry beyond a 1-digit level using TPA's projections. TPA's projections provide 2-digit ANZSIC projections for the Manufacturing industry.

In 2036, Basic Chemical and Chemical Product Manufacturing is projected to continue having the largest presence of Manufacturing sub-industries (617 jobs), despite also having the largest number of jobs lost over the 20 years between 2016 and 2036 compared to any other Manufacturing sub-industry (-139 jobs).

All other sub-industries of Manufacturing have a drastically lower number of jobs, with Furniture and Other Manufacturing being the closest (96 jobs by 2036), followed by Machinery and Equipment Manufacturing (67 jobs), Printing (34 jobs) and Wood Product Manufacturing (28 jobs)

While there is very little job growth projected across the sub-industries, Primary Metal and Metal Product Manufacturing (+4 jobs) and Pulp, Paper and Converted Paper Product Manufacturing (+1 job) are the only sub-industries projected for an increased number of jobs.

Textile, Leather, Clothing and Footwear Manufacturing is projected to decline the most over the 20 years between 2016 and 2036 (-63%).

TABLE 254: WARRIEWOOD BUSINESS PARK MANUFACTURING EMPLOYMENT PROJECTIONS BY 2-DIGIT ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Food Product Manufacturing	27	17	-10	-37%
Beverage and Tobacco Product Manufacturing	5	4	-1	-20%
Textile, Leather, Clothing and Footwear Manufacturing	19	7	-12	-63%
Wood Product Manufacturing	28	28	0	0%
Pulp, Paper and Converted Paper Product Manufacturing	5	6	1	20%
Printing (including the Reproduction of Recorded Media)	56	34	-22	-39%
Petroleum and Coal Product Manufacturing	10	5	-5	-50%
Basic Chemical and Chemical Product Manufacturing	756	**617**	-139	-18%
Polymer Product and Rubber Product Manufacturing	31	27	-4	-13%
Non-Metallic Mineral Product Manufacturing	5	4	-1	-20%
Primary Metal and Metal Product Manufacturing	6	10	4	67%
Fabricated Metal Product Manufacturing	16	11	-5	-31%
Transport Equipment Manufacturing	16	13	-3	-19%
Machinery and Equipment Manufacturing	93	67	-26	-28%
Furniture and Other Manufacturing	144	96	-48	-33%
Total	1217	946	*-271*	-

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in the Warriewood Business Park, many of the jobs there are in Computer System Design and Related Services (60 jobs), followed by Architectural Services (39 jobs) and Management Advice and Related Consulting Services (38).

TABLE 255: WARRIEWOOD BUSINESS PARK BREAKDOWN EDUCATION AND TRAINING AT A 4-DIGIT ANZSIC, 2016 (POW)

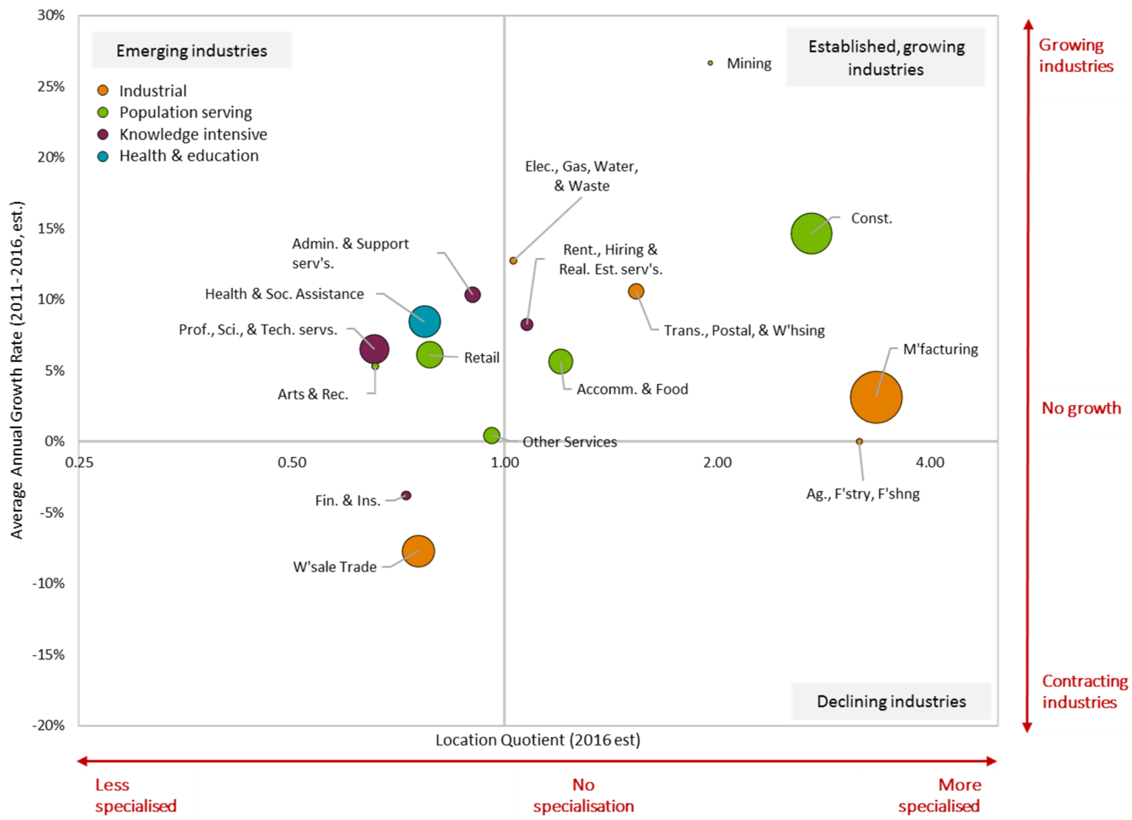
4-digit ANZSIC Employment	2016 Jobs
Computer System Design and Related Services	60
Architectural Services	39
Management Advice and Related Consulting Services	38
Accounting Services	30
Engineering Design and Engineering Consulting Services	23
Other Specialised Design Services	23

Source: ABS Census TableBuilder (2016)

Industry Specialisation

Warriewood is largely specialised in Manufacturing. It is also one of the largest specialisations in the precinct. There are a number of other industries between an LQ of 0.5 and 2, however, they are relatively smaller compared to Manufacturing.

FIGURE 173: LOCATION QUOTIENT OF WARRIEWOOD BUSINESS PARK COMPARED TO THE NORTH DISTRICT



Source: SGS 2019 using ABS Census TableBuilder (2011, 16)

Within Manufacturing's sub-industries, Pharmaceutical and Medicinal Product Manufacturing has grown significantly in the five years between 2011 and 2016 (+213 jobs). All other sub-industries have either grown very little (below 5 jobs), not experienced any change, or declined.

Professional and Scientific Equipment Manufacturing has declined the most (-25 jobs), followed by Computer and Electronic Equipment Manufacturing (-24), and Electrical Equipment Manufacturing (-14).

TABLE 256: WARRIEWOOD BUSINESS PARK MANUFACTURING SUB-INDUSTRY CHANGE, 2011-16 (POW)

Sub-industry	2011 Jobs	2016 Jobs	Change 2011-16
Manufacturing, nfd	52	59	7
Food Product Manufacturing, nfd	0	7	7
Dairy Product Manufacturing	9	11	2
Sugar and Confectionery Manufacturing	0	4	4
Textile Product Manufacturing	16	4	-12
Clothing and Footwear Manufacturing	6	6	0
Other Wood Product Manufacturing	14	18	4
Printing and Printing Support Services	41	49	8
Petroleum and Coal Product Manufacturing	3	3	0
Basic Chemical and Chemical Product Manufacturing, nfd	9	6	-3
Basic Chemical Manufacturing	0	6	6
Basic Polymer Manufacturing	6	3	-3
Fertiliser and Pesticide Manufacturing	0	6	6
Pharmaceutical and Medicinal Product Manufacturing	355	568	213
Cleaning Compound and Toiletry Preparation Manufacturing	14	14	0
Other Basic Chemical Product Manufacturing	0	3	3
Polymer Product Manufacturing	19	18	-1
Structural Metal Product Manufacturing	11	3	-8
Other Transport Equipment Manufacturing	11	7	-4
Machinery and Equipment Manufacturing, nfd	6	10	4
Professional and Scientific Equipment Manufacturing	29	4	-25
Computer and Electronic Equipment Manufacturing	30	6	-24
Electrical Equipment Manufacturing	39	25	-14
Other Machinery and Equipment Manufacturing	10	4	-6
Furniture Manufacturing	27	21	-6
Other Manufacturing	16	12	-4

Source: ABS Census TableBuilder (2011, 16)

Cromer Industrial Park

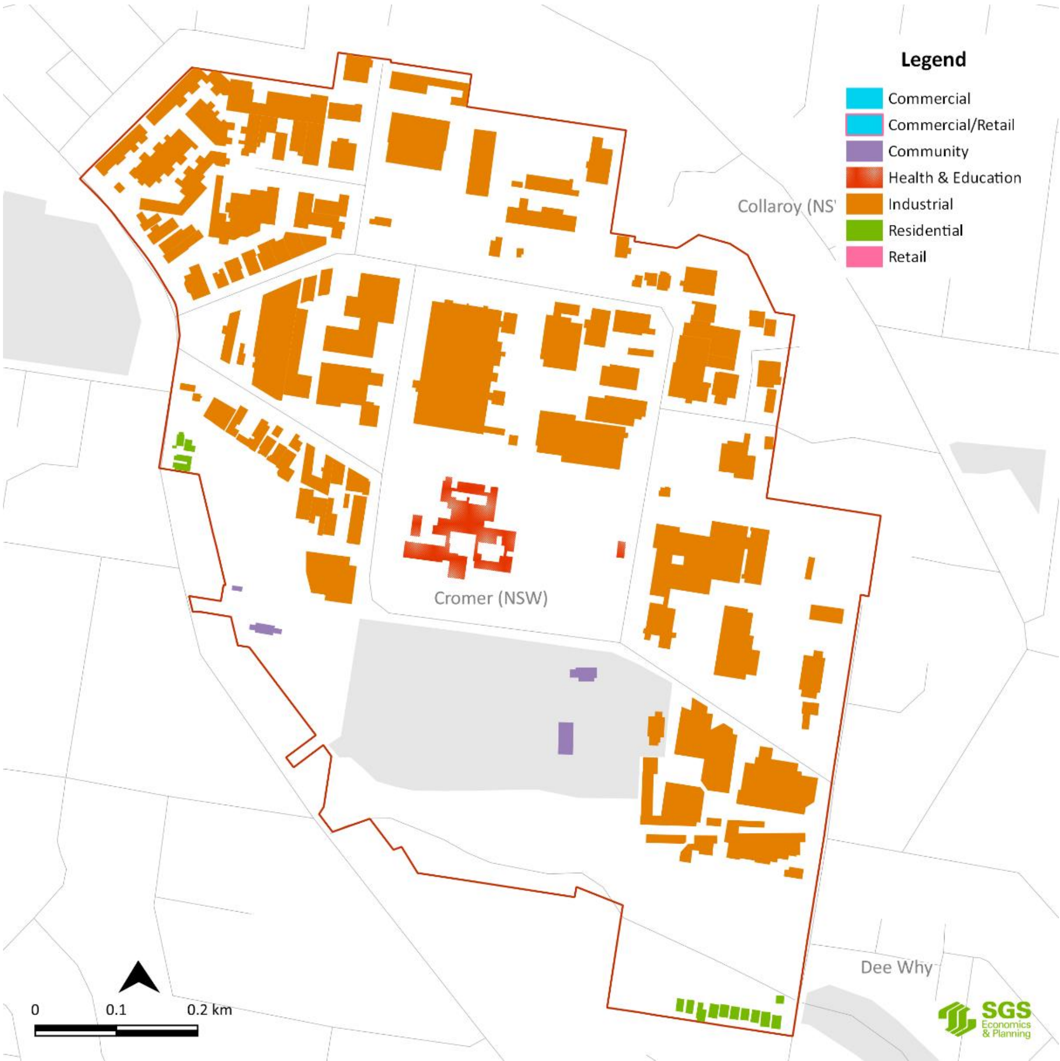
The Cromer Industrial Park is unique in the sense that it has industrial uses surrounding a public high school in its centre. Its industrial uses are primarily material manufacturing along with a number of head offices and other retail supply stores.

Its economic contribution is $299.74m. This is higher than the Northern Beaches average of $267.73m, but slightly lower than the Greater Sydney average of $309.03m. Most of its GVA comes from Wholesale Trade ($85.7m) and Manufacturing ($82.45m).

45% of Cromer's industrial land is surrounded by residential. This is slightly higher than the Northern Beaches average of 41%, and significantly higher than Greater Sydney (36%).

Land use overview

FIGURE 174: CROMER LAND USE



Source: SGS Economics and Planning, 2019

TABLE 257: CROMER INDUSTRIAL LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	-	0.0%
	Other Food	-	0.0%
	Clothing	-	0.0%

	Hospitality	-	0.0%
	Household goods	-	0.0%
	Other Retailing	-	0.0%
	Department Stores	-	0.0%
Non-Retail	Residential	4,756	2.9%
	Commercial	-	0.0%
	Industrial	130,389	79.7%
	Health & Education	22,731	13.9%
	Community	5,798	3.5%
	Total	**163,674**	**100.0%**

Source: SGS Economics and Planning, 2019

Residents

Only +30 additional people are projected to be living in the Cromer Industrial Park catchment over the 20 years between 2016 and 2036. Mature Adults are the fastest growing age group (+10) and projected to be the largest age group by 2036 (24). Mature Adults are closely followed by Retirees (18), Young Adults (14) and Youth (12).

TABLE 258: CROMER INDUSTRIAL PARK AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	0	0	0	-
Youth	7	12	4	57%
Young Adult	8	14	6	75%
Adult	3	3	1	33%
Mature Adult	15	**24**	10	**67%**
Retirees	11	**18**	7	64%
Total	*44*	*71*	*28*	-

Source: TZP2016 v1.51 (TPA)

Industry

Cromer Industrial Park's largest industry by 2036 will be Manufacturing (640 jobs). This was also the case in 2016. Furthermore, the Public Administration and Safety Industry is projected to grow significantly more than any other industry into the future, with an additional +91 jobs over the 20 years between 2016 and 2036 to a total of 260 jobs.

Other large industries in the Warriewood Business Park by 2036 will be Wholesale Trade (487 jobs), Construction (343 jobs), and Professional, Scientific and Technical Services (212 jobs)

Public Administration and Safety is projected for the largest % increase by 2036 compared to 2016 job levels (+54%), followed by Professional, Scientific and Technical Services (+46%) and Education and Training (+43%).

Despite being the largest industry by 2036, Manufacturing is expected to drop significantly into the future, losing -265 jobs in the 20 years between 2016 and 2036.

TABLE 259: CROMER INDUSTRIAL PARK EMPLOYMENT PROJECTIONS BY 1-DIGIT ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	3	3	0	0%
Mining	0	0	0	-
Manufacturing	905	**640**	-265	-29%
Electricity, Gas, Water and Waste Services	125	174	49	39%
Construction	317	**343**	26	8%
Wholesale Trade	459	**487**	28	6%
Retail Trade	62	66	4	6%
Accommodation and Food Services	54	70	16	30%
Transport, Postal and Warehousing	122	102	-20	-16%
Information Media and Telecommunications	7	8	1	14%
Financial and Insurance Services	0	0	0	-
Rental, Hiring and Real Estate Services	49	56	7	14%
Professional, Scientific and Technical Services	145	**212**	67	46%
Administrative and Support Services	82	80	-2	-2%
Public Administration and Safety	169	**260**	91	54%
Education and Training	98	140	42	43%
Health Care and Social Assistance	20	23	3	15%
Arts and Recreation Services	64	87	23	36%
Other Services	52	71	19	37%
Total	*2,733*	*2,822*	*89*	-

Source: TZP2016 v1.51 (TPA)

Employment by BICs reflects strong employment in the Industrial category (1,409 jobs), despite the industry being projected to lose -205 jobs compared to 2016 levels.

Knowledge Intensive and Population Serving are also projected to have a strong presence by 2036 (615 and 636 jobs respectively), with Knowledge Intensive projected to have the largest growth total across all four categories (+162 jobs). Health and Education, however, is projected for the largest % increase by 2036 compared to 2016 job levels (+38%), closely followed by Knowledge Intensive (+36%).

Industrial is projected to lose -205 jobs by 2036.

TABLE 260: CROMER INDUSTRIAL PARK EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	452	615	162	36%
Health and Education	118	163	45	38%
Population Serving	549	636	86	16%
Industrial	1,614	**1,409**	-205	-13%

Source: TZP2016 v1.51 (TPA)

Due to the Cromer Industrial Park catchment containing a precinct almost entirely of industrial land, there is merit in analysing changes to the Industrial industry beyond a 1-digit level using TPA's projections. TPA's projections provide 2-digit ANZSIC projections for the Manufacturing industry.

In 2036, Machinery and Equipment Manufacturing (225 jobs) and Furniture and Other Manufacturing (227 jobs) are projected to continue having the largest presence of Manufacturing sub-industries (617 jobs), despite also having the largest number of jobs lost over the 20 years between 2016 and 2036 compared to any other Manufacturing sub-industry (-88 and -84 jobs respectively).

All other sub-industries of Manufacturing have a drastically lower number of jobs, with Basic Chemical and Chemical Product Manufacturing being the closest (47 jobs by 2036), followed by Wood Product Manufacturing (32 jobs) and Primary Metal and Metal Product Manufacturing (23 jobs).

All sub-industries are projected to decline by 2036, losing -265 jobs in total.

TABLE 261: CROMER INDUSTRIAL PARK MANUFACTURING EMPLOYMENT PROJECTIONS BY 2-DIGIT ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Food Product Manufacturing	27	17	-10	-37%
Beverage and Tobacco Product Manufacturing	4	1	-3	-75%
Textile, Leather, Clothing and Footwear Manufacturing	6	1	-5	-83%
Wood Product Manufacturing	36	32	-4	-11%
Pulp, Paper and Converted Paper Product Manufacturing	5	4	-1	-20%
Printing (including the Reproduction of Recorded Media)	19	10	-9	-47%
Petroleum and Coal Product Manufacturing	4	2	-2	-50%
Basic Chemical and Chemical Product Manufacturing	77	47	-30	-39%
Polymer Product and Rubber Product Manufacturing	22	15	-7	-32%
Non-Metallic Mineral Product Manufacturing	22	14	-8	-36%
Primary Metal and Metal Product Manufacturing	26	23	-3	-12%
Fabricated Metal Product Manufacturing	19	12	-7	-37%
Transport Equipment Manufacturing	14	10	-4	-29%
Machinery and Equipment Manufacturing	313	**225**	-88	-28%
Furniture and Other Manufacturing	311	**227**	-84	-27%
Total	*905*	*640*	*-265*	-

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in the Cromer Industrial Park, many of the jobs there are in Survey and Mapping Services (19 jobs), followed by Other

Specialised Design Services (18), Engineering Design and Engineering Consulting Services (16) and Computer System Design and Related Services (15).

TABLE 262: CROMER INDUSTRIAL PARK BREAKDOWN EDUCATION AND TRAINING AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Surveying and Mapping Services	19
Other Specialised Design Services	18
Engineering Design and Engineering Consulting Services	16
Computer System Design and Related Services	15
Architectural Services	14
Accounting Services	12

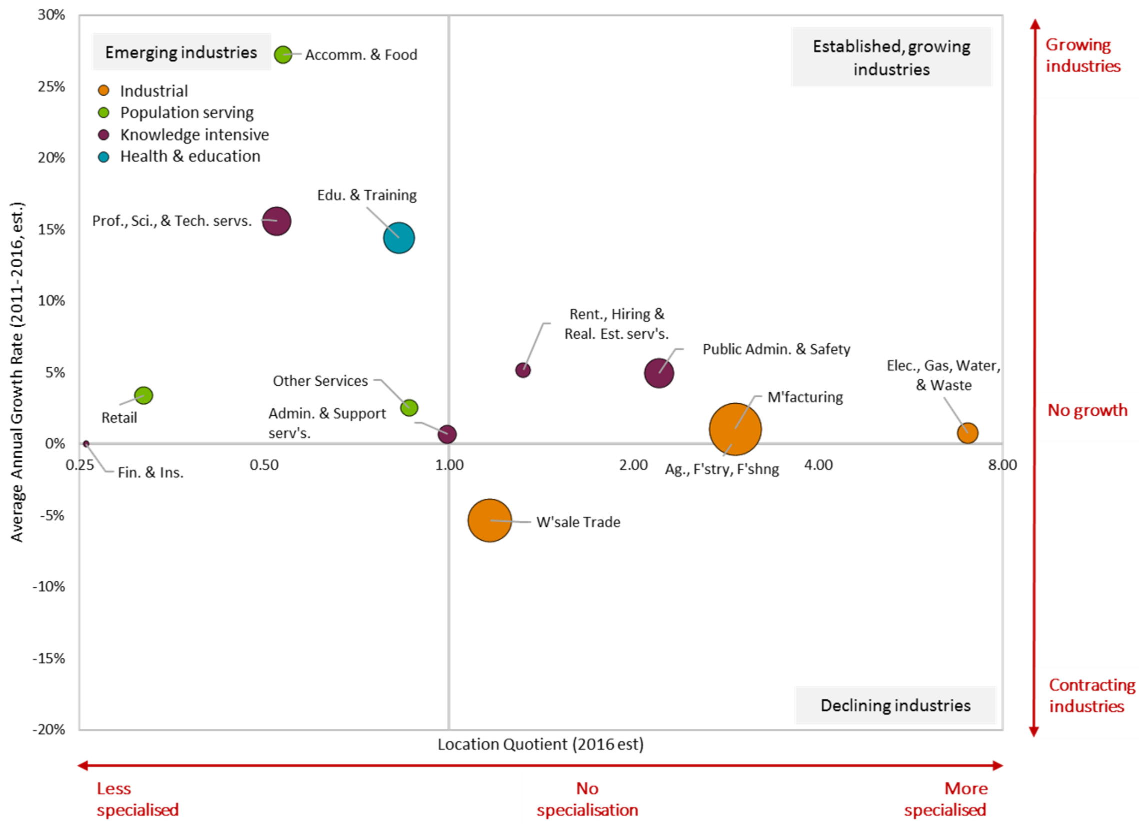
Source: ABS Census TableBuilder (2016)

Industry Specialisation

Cromer is largely specialised in Electricity, Gas, Water & Waste Services and Manufacturing. Manufacturing is a much larger industry. It also has an LQ of 3, reflecting a high degree of specialisation compared to the North District.

Wholesale Trade is one of Cromer's largest industries, however, it is not particularly specialised compared to the other industries.

FIGURE 175: LOCATION QUOTIENT OF CROMER COMPARED TO THE NORTH DISTRICT



Source: SGS 2019 using ABS Census TableBuilder (2011, 16)

At a sub-industry level, Manufacturing has increased growth in a number of industries. These include Pump, Compressor, Heating and Ventilation Equipment Manufacturing (+37 jobs), Furniture Manufacturing (+32) and Electrical Equipment Manufacturing (+24).

Notable declines include Structural Metal Product Manufacturing (-19 jobs), Other Wood Product Manufacturing (-16), Other Fabricated Metal Product Manufacturing (-12) and Specialised Machinery and Equipment Manufacturing (-10).

TABLE 263: CROMER MANUFACTURING SUB-INDUSTRY CHANGE, 2011-16 (POW)

Sub-industry	2011 Jobs	2016 Jobs	Change 2011-16
Manufacturing, nfd	65	59	-6
Food Product Manufacturing, nfd	3	12	9
Bakery Product Manufacturing	0	9	9
Other Wood Product Manufacturing	44	28	-16
Printing and Printing Support Services	23	17	-6
Basic Chemical and Chemical Product Manufacturing, nfd	10	3	-7
Basic Chemical Manufacturing	0	6	6
Pharmaceutical and Medicinal Product Manufacturing	40	42	2
Cleaning Compound and Toiletry Preparation Manufacturing	4	14	10
Polymer Product Manufacturing	18	13	-5
Cement, Lime, Plaster and Concrete Product Manufacturing	6	5	-1
Other Non-Metallic Mineral Product Manufacturing	3	4	1
Basic Ferrous Metal Manufacturing	11	7	-4
Basic Non-Ferrous Metal Product Manufacturing	0	7	7
Structural Metal Product Manufacturing	24	5	-19
Other Fabricated Metal Product Manufacturing	18	6	-12
Motor Vehicle and Motor Vehicle Part Manufacturing	6	10	4
Other Transport Equipment Manufacturing	3	4	1
Machinery and Equipment Manufacturing, nfd	4	6	2
Computer and Electronic Equipment Manufacturing	5	3	-2
Electrical Equipment Manufacturing	94	118	24
Domestic Appliance Manufacturing	0	3	3
Pump, Compressor, Heating and Ventilation Equipment Manufacturing	3	40	37
Specialised Machinery and Equipment Manufacturing	25	15	-10
Other Machinery and Equipment Manufacturing	5	3	-2
Furniture Manufacturing	32	64	32
Other Manufacturing	12	14	2

Source: ABS Census TableBuilder (2011, 16)

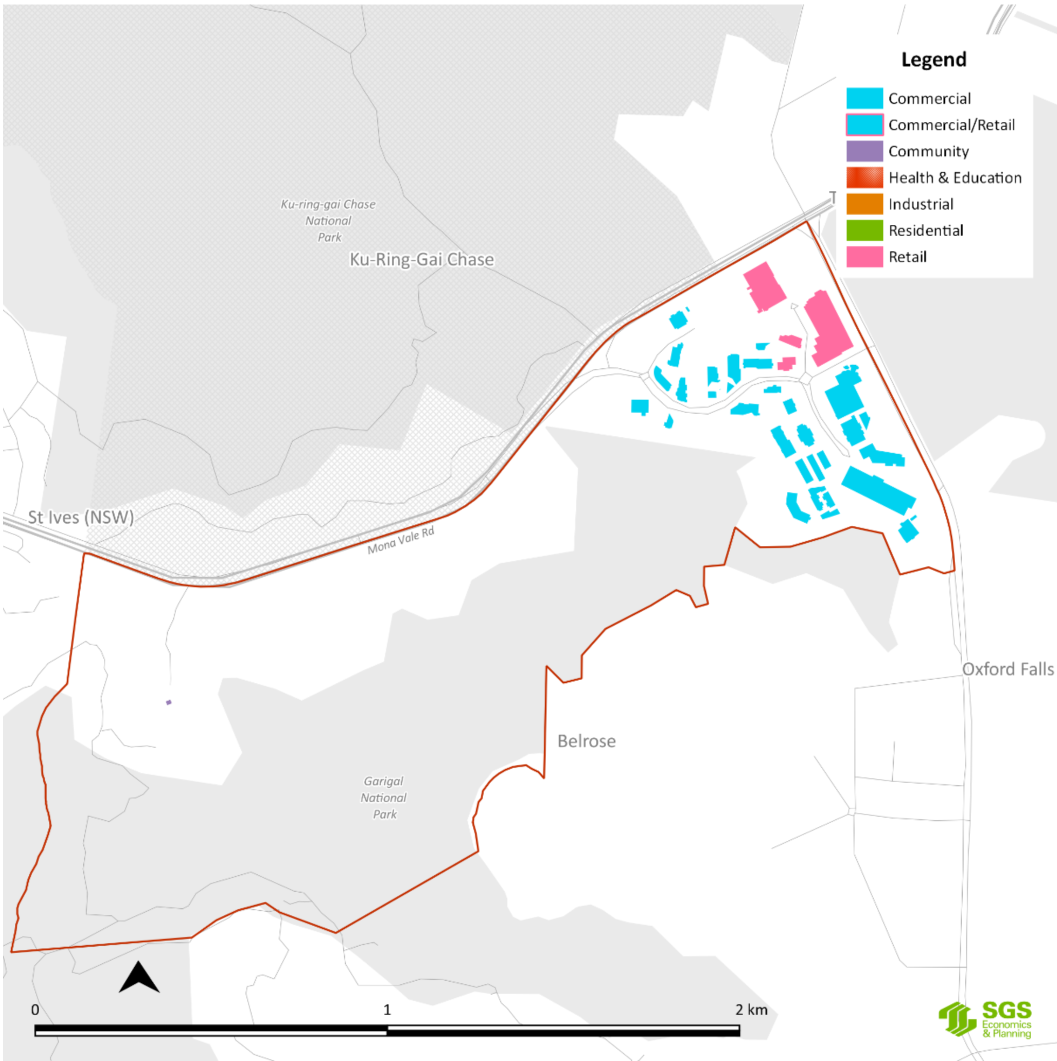
Austlink Business Park

Austlink Business Park catchment comprises primarily of corporate head offices running industrial and other related businesses next to Belrose Super Centre, a shopping mall located on Forest Way. It is almost entirely made up of large-format employment buildings. Some larger businesses in the area include the Pandora Jewellery Head Office, Bunnings, Astute Financial Management. At a smaller scale, a number of retail supply stores. It appears to be functioning well with its mix of businesses.

Austlink Business Park is geographically isolated from the rest of the employment centres in the Northern Beaches. It is also surrounded by an extensive spread of forestry.

Land use overview

FIGURE 176: AUSTLINK CORPORATE PARK LAND USE



Source: SGS Economics and Planning, 2019

TABLE 264: AUSTLINK CORPORATE PARK LAND USE SUMMARY

Category	Land Use	Estimated Land Use	Percentage
Retail	Supermarket	-	0.0%
	Other Food	-	0.0%
	Clothing	-	0.0%

	Hospitality	387	0.1%
	Household goods	47,580	10.5%
	Other Retailing	6,137	1.4%
	Department Stores	-	0.0%
Non-Retail	Residential	-	0.0%
	Commercial	397,092	87.8%
	Industrial	-	0.0%
	Health & Education	163	0.0%
	Community	877	0.2%
	Total	452,237	100.0%

Source: SGS Economics and Planning, 2019

Residents

Only +20 additional people are projected to be living in the Austlink Business Park catchment over the 20 years between 2016 and 2036. Retirees are the fastest growing age group (+15) and projected to be the largest age group by 2036 (15).

TABLE 265: AUSTLINK BUSINESS PARK AGE GROUP PROJECTIONS, 2016-36 (PUR)

Age Group	No. 2016	No. 2036	Growth Total 2016-36	% of Change 2016-36
Children	0	1	1	-
Youth	0	1	1	57%
Young Adult	0	0	0	75%
Adult	0	2	2	33%
Mature Adult	0	3	3	**67%**
Retirees	0	15	15	64%
Total	-	*22*	*22*	-

Source: TZP2016 v1.51 (TPA)

Industry

Austlink Business Park's largest industry by 2036 will be Professional, Scientific and Technical Services (1,101 jobs). This was not the case in 2016, as Retail Trade (882 jobs) and Wholesale Trade (811 jobs) were the largest, reflecting the strong projected growth of Professional, Scientific and Technical Services (+348 jobs compared to +49 jobs each in Retail and Wholesale Trade).

Furthermore, the Public Administration and Safety Industry is projected to grow significantly more than any other industry into the future, with an additional +91 jobs over the 20 years between 2016 and 2036 to a total of 260 jobs.

Other large industries in the Warriewood Business Park by 2036 will be Manufacturing (516 jobs), Health Care and Social Assistance (246 jobs) and Construction (242 jobs).

Public Administration and Safety is projected for the largest % increase by 2036 compared to 2016 job levels (+57%), followed by Professional, Scientific and Technical Services (+46%) and Education and Training (+43%).

Manufacturing is expected to drop significantly into the future, losing -223 jobs in the 20 years between 2016 and 2036.

TABLE 266: AUSTLINK BUSINESS PARK EMPLOYMENT PROJECTIONS BY 1-DIGIT ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Agriculture, Forestry and Fishing	11	9	-2	-18%
Mining	13	15	2	15%
Manufacturing	739	**516**	-223	-30%
Electricity, Gas, Water and Waste Services	65	90	25	38%
Construction	224	242	18	8%
Wholesale Trade	811	**860**	49	6%
Retail Trade	882	**931**	49	6%
Accommodation and Food Services	57	73	16	28%
Transport, Postal and Warehousing	92	77	-15	-16%
Information Media and Telecommunications	92	95	3	3%
Financial and Insurance Services	46	64	18	39%
Rental, Hiring and Real Estate Services	35	41	6	17%
Professional, Scientific and Technical Services	753	**1,101**	348	46%
Administrative and Support Services	144	139	-5	-3%
Public Administration and Safety	30	47	17	57%
Education and Training	63	90	27	43%
Health Care and Social Assistance	217	246	29	13%
Arts and Recreation Services	21	28	7	33%
Other Services	97	132	35	36%
Total	*4,392*	*4,796*	*404*	-

Source: TZP2016 v1.51 (TPA)

Employment by BICs reflects strong employment across all Broader Industries by 2036 (1,400 to 1,600 jobs each) except for Health and Education (336 jobs).

Knowledge Intensive is expected to have the largest job growth total in the 20 years between 2016 and 2036 (+386 jobs) and % change from 2016-36 job levels (+35%). Industrial is projected to lose -166 jobs by 2036 (-10% from 2016 job levels).

TABLE 267: AUSTLINK BUSINESS PARK EMPLOYMENT PROJECTIONS BY BIC, 2016-36 (POW)

BIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Knowledge Intensive	1,100	**1,487**	386	35%
Health and Education	280	336	56	20%
Population Serving	1,280	**1,407**	126	10%
Industrial	1,731	**1,565**	-166	-10%

Source: TZP2016 v1.51 (TPA)

In 2036, Machinery and Equipment Manufacturing (304 jobs) is projected to continue having the largest presence of Manufacturing sub-industries, despite also having the largest number of jobs lost over the 20 years between 2016 and 2036 compared to any other Manufacturing sub-industry (-117 jobs). However, there is no Manufacturing sub-industry that is projected to increase from 2016-36, culminating in a total of -223 Manufacturing jobs lost over the 20 year.

All other sub-industries of Manufacturing have a projected to have a drastically lower number of jobs by 2036, with Basic Chemical and Chemical Product Manufacturing being the closest (66 jobs by 2036), followed by Food Product Manufacturing (48 jobs) and Furniture and Other Manufacturing (33 jobs).

TABLE 268: AUSTLINK BUSINESS PARK MANUFACTURING EMPLOYMENT PROJECTIONS BY 2-DIGIT ANZSIC, 2016-36 (POW)

ANZSIC Employment	2016 Jobs	2036 Jobs	Growth Total 2016-36	% of Change 2016-36
Food Product Manufacturing	75	48	-27	-36%
Beverage and Tobacco Product Manufacturing	2	1	-1	-50%
Textile, Leather, Clothing and Footwear Manufacturing	3	1	-2	-67%
Wood Product Manufacturing	3	3	0	0%
Pulp, Paper and Converted Paper Product Manufacturing	3	3	0	0%
Printing (including the Reproduction of Recorded Media)	10	5	-5	-50%
Petroleum and Coal Product Manufacturing	2	1	-1	-50%
Basic Chemical and Chemical Product Manufacturing	107	66	-41	-38%
Polymer Product and Rubber Product Manufacturing	3	2	-1	-33%
Non-Metallic Mineral Product Manufacturing	16	11	-5	-31%
Primary Metal and Metal Product Manufacturing	22	19	-3	-14%
Fabricated Metal Product Manufacturing	3	2	-1	-33%
Transport Equipment Manufacturing	23	17	-6	-26%
Machinery and Equipment Manufacturing	421	**304**	-117	-28%
Furniture and Other Manufacturing	46	33	-13	-28%
Total	*739*	*516*	*-223*	-

Source: TZP2016 v1.51 (TPA)

In terms of the Professional, Scientific & Technical Services industry in the Austlink Business Park, many of the jobs there are in Computer System Design and Related Services (281), followed by Accounting Services (45), Management Advice and Related Consulting Services (35) and Engineering Design and Engineering Consulting Services (34).

TABLE 269: AUSTLINK BUSINESS PARK BREAKDOWN EDUCATION AND TRAINING AT A 4-DIGIT ANZSIC, 2016 (POW)

4-digit ANZSIC Employment	2016 Jobs
Computer System Design and Related Services	281
Accounting Services	45
Management Advice and Related Consulting Services	35
Engineering Design and Engineering Consulting Services	34
Legal Services	20
Other Specialised Design Services	14

Source: ABS Census TableBuilder (2016)

Industry Specialisation

The precinct is largely specialised in Retail Trade and Manufacturing, with an LQ of approx. 2.75 and 2 respectively.

Agriculture, Forestry and Fishing and Electricity, Gas, Water and & Waste Services are also specialised, however, they are very small industries.

Professional, Scientific and Technical Services and Wholesale Trade are large industries in the area; however, they are not as specialised.

FIGURE 177: LOCATION QUOTIENT OF AUSTLINK COMPARED TO THE NORTH DISTRICT

Source: SGS 2019 using ABS Census TableBuilder (2011, 16)

Other Food Product Manufacturing has grown the most (+45 jobs) in Austlink, followed by Other Machinery and Equipment Manufacturing (+31). Computer and Electronic Equipment Manufacturing has declined significantly (-86).

In terms of Professional, Scientific and Technical Services, Legal Services has grown the most (+17), followed by Accounting Services (+13) and Management Advice and Related Consulting Services (+12). Computer System Design and Related Services has declined significantly.

TABLE 270: AUSTLINK SUB-INDUSTRY CHANGE, 2011-16 (POW)

Industry	Sub-industry	2011 Jobs	2016 Jobs	Change 2011-16
Manufacturing	Manufacturing, nfd	29	35	6
	Food Product Manufacturing, nfd	21	22	1
	Other Food Product Manufacturing	3	48	45
	Printing and Printing Support Services	14	7	-7
	Pharmaceutical and Medicinal Product Manufacturing	31	54	23
	Cleaning Compound and Toiletry Preparation Manufacturing	4	28	24
	Glass and Glass Product Manufacturing	0	6	6
	Basic Ferrous Metal Manufacturing	7	3	-4
	Other Transport Equipment Manufacturing	11	14	3
	Machinery and Equipment Manufacturing, nfd	3	5	2
	Professional and Scientific Equipment Manufacturing	26	33	7
	Computer and Electronic Equipment Manufacturing	95	9	-86
	Electrical Equipment Manufacturing	17	4	-13
	Other Machinery and Equipment Manufacturing	175	206	31
	Furniture Manufacturing	3	5	2
	Other Manufacturing	7	3	-4
Professional, Scientific and Technical Services	Professional, Scientific and Technical Services, nfd	0	3	3
	Scientific Research Services	3	10	7
	Architectural Services	15	10	-5
	Engineering Design and Engineering Consulting Services	25	34	9
	Other Specialised Design Services	9	14	5
	Legal Services	3	20	17
	Accounting Services	32	45	13
	Advertising Services	27	12	-15
	Market Research and Statistical Services	8	4	-4
	Management Advice and Related Consulting Services	23	35	12
	Computer System Design and Related Services	355	281	-74

Source: ABS Census TableBuilder (2011, 16)

APPENDIX 5 – LEP COMPARISONS

Black = in LEP
Red = inconsistencies
Blue = standard template

B1 Neighbourhood Centre existing zone review

TABLE 271: ZONE B1 – NEIGHBOURHOOD CENTRE USES COMPARATIVE ANALYSIS OF ZONES

MANLY LEP 2013	WARRINGAH LEP 2011	PITTWATER LEP 2014
	Objectives	
▪ To provide a range of small-scale retail, business and community uses that serve the needs of people who live or work in the surrounding neighbourhood.	▪ To provide a range of small-scale retail, business and community uses that serve the needs of people who live or work in the surrounding neighbourhood. ▪ To ensure that neighbourhood centres provide a village-like atmosphere and safety and comfort for pedestrians. ▪ To minimise conflict between land uses in the zone and adjoining zones and ensure the amenity of any adjoining or nearby residential land uses.	▪ To provide a range of small-scale retail, business and community uses that serve the needs of people who live or work in the surrounding neighbourhood. ▪ To provide healthy, attractive, vibrant and safe neighbourhood centres.
	Permitted without consent	
Home-based child care; Home occupations	Home-based child care; Home occupations	Home businesses; Home occupations
	Permitted with consent	
Boarding houses; Business premises; Car parks; Centre-based child care facilities; Community facilities; Environmental facilities; Environmental protection works; Flood mitigation works; Group homes; Health consulting rooms; Home businesses; Home industries; Hostels; Information and education facilities; Kiosks; Markets; Office premises; Places of public worship; Public administration buildings; Medical centres; Neighbourhood shops; Recreation areas; Recreation facilities (indoor); Respite day care centres; Restaurants or cafes; Roads; Service stations; Shops; Shop top housing; Signage; Take away food and drink premises; Veterinary hospitals; Water recycling facilities; Water supply systems	Boarding houses; Business premises; Centre-based child care facilities; Community facilities; Food and drink premises; Medical centres; Neighbourhood shops; Respite day care centres; Roads; Shop top housing; Shops; Any other development not specified in item 2 or 4	Boarding houses; Business premises; Centre-based child care facilities; Community facilities; Environmental protection works; Health consulting rooms; Home-based child care; Home industries; Information and education facilities; Jetties; Kiosks; Markets; Medical centres; Neighbourhood shops; Recreation areas; Recreation facilities (indoor); Respite day care centres; Restaurants or cafes; Roads; Shop top housing; Shops; Signage; Take away food and drink premises; Veterinary hospitals

Prohibited		
Water treatment facilities; Any other development not specified in item 2 or	Advertising structures; Agriculture; Air transport facilities; Amusement centres; Animal boarding or training establishments; Boat building and repair facilities; Boat sheds; Camping grounds; Car parks; Caravan parks; Charter and tourism boating facilities; Cemeteries; Correctional centres; Crematoria; Depots; Eco-tourist facilities; Entertainment facilities; Environmental facilities; Exhibition villages; Extractive industries; Forestry; Freight transport facilities; Function centres; Heavy industrial storage establishments; Highway service centres; Home occupations (sex services); Hospitals; Industrial retail outlets; Industrial training facilities; Industries; Information and education facilities; Marinas; Mooring pens; Moorings; Open cut mining; Passenger transport facilities; Port facilities; Pubs; Recreation facilities (indoor); Recreation facilities (major); Recreation facilities (outdoor); Registered clubs; Research stations; Residential accommodation; Retail premises; Rural industries; Service stations; Sex services premises; Storage premises; Tourist and visitor accommodation; Transport depots; Vehicle body repair workshops; Vehicle repair stations; Waste or resource management facilities; Water recreation structures; Wharf or boating facilities; Wholesale supplies	Any development not specified in item 2 or 3

B2 Local centre existing zone review

TABLE 272: ZONE B2 – LOCAL CENTRE USES COMPARATIVE ANALYSIS OF ZONES

MANLY LEP 2013	WARRINGAH LEP 2011	PITTWATER LEP 2014
Objectives		
▪ To provide a range of retail, business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area. ▪ To encourage employment opportunities in accessible locations. ▪ To maximise public transport patronage and encourage walking and cycling. ▪ To minimise conflict between land uses in the zone and adjoining zones and ensure amenity for the people who live in the local centre in relation to noise, odour, delivery of materials and use of machinery.	▪ To provide a range of retail, business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area. ▪ To encourage employment opportunities in accessible locations. ▪ To maximise public transport patronage and encourage walking and cycling. ▪ To provide an environment for pedestrians that is safe, comfortable and interesting. ▪ To create urban form that relates favourably in scale and in architectural and landscape treatment to neighbouring land uses and to the natural environment. ▪ To minimise conflict between land uses in the zone and adjoining zones and ensure the amenity of any adjoining or nearby residential land uses.	▪ To provide a range of retail, business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area. ▪ To encourage employment opportunities in accessible locations. ▪ To maximise public transport patronage and encourage walking and cycling. ▪ To provide healthy, attractive, vibrant and safe local centres. ▪ To strengthen the role of centres as places of employment. ▪ To provide an active day and evening economy. ▪ To provide for residential uses above street level where they are compatible with the characteristics and uses of the site and its surroundings.
Permitted without consent		
Home-based child care; Home occupations	Home-based child care; Home occupations	Home businesses; Home occupations
Permitted with consent		
Amusement centres; Boarding houses; Boat sheds; Car parks; Centre-based child care facilities; Commercial premises; Community facilities; Educational establishments; Entertainment facilities; Environmental protection works; Flood mitigation works; Function centres; Group homes; Health consulting rooms; Home businesses; Home industries; Hostels; Information and education facilities; Medical centres; Passenger transport facilities; Recreation facilities (indoor); Registered clubs; Respite day care centres; Restricted premises; Roads; Service stations; Shop top housing; Signage; Tourist and visitor accommodation; Veterinary hospitals; Water recycling facilities; Water supply systems	Boarding houses; Centre-based child care facilities; Commercial premises; Community facilities; Educational establishments; Entertainment facilities; Function centres; Information and education facilities; Medical centres; Passenger transport facilities; Recreation facilities (indoor); Registered clubs; Respite day care centres; Restricted premises; Roads; Service stations; Shop top housing; Tourist and visitor accommodation; Any other development not specified in item 2 or 4	Amusement centres; Boarding houses; Car parks; Centre-based child care facilities; Commercial premises; Community facilities; Educational establishments; Entertainment facilities; Environmental protection works; Function centres; Home-based child care; Home industries; Horticulture; Information and education facilities; Medical centres; Passenger transport facilities; Places of public worship; Public administration buildings; Recreation areas; Recreation facilities (indoor); Registered clubs; Respite day care centres; Restricted premises; Roads; Service stations; Sex services premises; Shop top housing; Signage; Tourist and visitor accommodation; Veterinary hospitals

Prohibited		
Water treatment facilities; Any other development not specified in item 2 or 3	Advertising structures; Agriculture; Air transport facilities; Animal boarding or training establishments; Boat building and repair facilities; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Correctional centres; Crematoria; Depots; Eco-tourist facilities; Environmental facilities; Exhibition villages; Extractive industries; Forestry; Freight transport facilities; Heavy industrial storage establishments; Highway service centres; Home occupations (sex services); Industrial retail outlets; Industrial training facilities; Industries; Marinas; Mooring pens; Moorings; Open cut mining; Port facilities; Recreation facilities (major); Recreation facilities (outdoor); Research stations; Residential accommodation; Rural industries; Sex services premises; Storage premises; Transport depots; Vehicle body repair workshops; Vehicle repair stations; Waste or resource management facilities; Water recreation structures; Wharf or boating facilities; Wholesale supplies	Any development not specified in item 2 or 3

B3 Commercial core existing zone review

TABLE 273: ZONE B2 – LOCAL CENTRE USES COMPARATIVE ANALYSIS OF ZONES

MANLY LEP 2013	WARRINGAH LEP 2011	PITTWATER LEP 2014
	Objectives	
N/A	▪ To provide a wide range of retail, business, office, entertainment, community and other suitable land uses that serve the needs of the local and wider community. ▪ To encourage appropriate employment opportunities in accessible locations. ▪ To maximise public transport patronage and encourage walking and cycling. ▪ To recognise and support the role of Warringah Mall as a retail centre of sub-regional significance.	N/A
	Permitted without consent	
	Nil	
	Permitted with consent	
	Centre-based child care facilities; Commercial premises; Community facilities; Educational establishments; Entertainment facilities; Function centres; Hotel or motel accommodation; Information and education facilities; Medical centres; Passenger transport facilities; Recreation facilities (indoor); Registered clubs; Respite day care centres; Restricted premises; Roads; Any other development not specified in item 2 or 4	
	Prohibited	
	Advertising structures; Agriculture; Air transport facilities; Animal boarding or training establishments; Boat building and repair facilities; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Correctional centres; Crematoria; Depots; Eco-tourist facilities; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Forestry; Freight transport facilities; Heavy industrial storage establishments; Highway service centres; Home-based child care; Home businesses; Home occupations; Home occupations (sex services); Industrial retail outlets; Industrial training facilities; Industries; Marinas; Mooring pens; Moorings; Open cut mining; Port facilities; Recreation facilities (major); Recreation facilities (outdoor); Research stations; Residential accommodation; Rural industries; Sex services premises; Storage premises; Tourist and visitor accommodation; Transport depots; Vehicle body repair workshops; Vehicle repair stations; Waste or resource management facilities; Water recreation structures; Wharf or boating facilities; Wholesale supplies	

B4 Mixed use existing zone review

TABLE 274: ZONE B4 – LOCAL CENTRE USES COMPARATIVE ANALYSIS OF ZONES

MANLY LEP 2013	WARRINGAH LEP 2011	PITTWATER LEP 2014
Objectives		
N/A	▪ To provide a mixture of compatible land uses. ▪ To integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling. ▪ To reinforce the role of Dee Why as the major centre in the sub-region by the treatment of public spaces, the scale and intensity of development, the focus of civic activity and the arrangement of land uses. ▪ To promote building design that creates active building fronts, contributes to the life of streets and public spaces and creates environments that are appropriate to human scale as well as being comfortable, interesting and safe. ▪ To promote a land use pattern that is characterised by shops, restaurants and business premises on the ground floor and housing and offices on the upper floors of buildings. ▪ To encourage site amalgamations to facilitate new development and to facilitate the provision of car parking below ground.	▪ To provide a mixture of compatible land uses. ▪ To integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling. ▪ To strengthen the role of Mona Vale as a centre of employment in Pittwater. ▪ To provide healthy, attractive, vibrant and safe mixed-use areas. ▪ To provide an active day and evening economy. ▪ To provide for residential uses above ground level, where they are compatible with the characteristics and uses of the site and its surroundings. ▪ To encourage retail vitality and provide a high level of amenity for pedestrians and cyclists.
Permitted without consent		
	Home-based child care; Home occupations	Home businesses; Home occupations
Permitted with consent		
	Boarding houses; Centre-based child care facilities; Commercial premises; Community facilities; Educational establishments; Entertainment facilities; Function centres; Hotel or motel accommodation; Information and education facilities; Medical centres; Passenger transport facilities; Recreation facilities (indoor); Registered clubs; Residential flat buildings; Respite day care centres; Restricted premises; Roads; Seniors housing; Shop top housing; Any other development not specified in item 2 or 4	Amusement centres; Boarding houses; Car parks; Centre-based child care facilities; Commercial premises; Community facilities; Educational establishments; Entertainment facilities; Environmental protection works; Function centres; Home-based child care; Home industries; Horticulture; Hotel or motel accommodation; Information and education facilities; Medical centres; Passenger transport facilities; Places of public worship; Recreation areas; Recreation facilities (indoor); Registered clubs; Respite day care centres; Restricted premises; Roads; Seniors housing; Service stations; Sex services premises; Shop top housing; Signage; Tourist and visitor accommodation; Veterinary hospitals

	Prohibited	
	Advertising structures; Agriculture; Air transport facilities; Animal boarding or training establishments; Boat building and repair facilities; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Correctional centres; Crematoria; Depots; Eco-tourist facilities; Environmental facilities; Exhibition villages; Extractive industries; Forestry; Freight transport facilities; Heavy industrial storage establishments; Highway service centres; Home occupations (sex services); Industrial retail outlets; Industrial training facilities; Industries; Marinas; Mooring pens; Moorings; Open cut mining; Port facilities; Recreation facilities (major); Recreation facilities (outdoor); Research stations; Residential accommodation; Rural industries; Service stations; Sex services premises; Storage premises; Transport depots; Vehicle body repair workshops; Vehicle repair stations; Waste or resource management facilities; Water recreation structures; Wharf or boating facilities; Wholesale supplies	Any development not specified in item 2 or 3

B5 Business Development existing zone review

TABLE 275: ZONE B5 BUSINESS DEVELOPMENT COMPARATIVE ANALYSIS

MANLY LEP 2013	WARRINGAH LEP 2011	PITTWATER LEP 2014
	Objectives	
N/A	▪ To enable a mix of business and warehouse uses, and bulky goods premises that require a large floor area, in locations that are close to, and that support the viability of, centres. ▪ To provide for the location of vehicle sales or hire premises. ▪ To create a pedestrian environment that is safe, active and interesting by incorporating street level retailing and business uses.	N/A
	Permitted without consent	
	Nil	
	Permitted with consent	
	Bulky goods premises; Centre-based child care facilities; Garden centres; Hardware and building supplies; Hotel or motel accommodation; Landscaping material supplies; Neighbourhood shops; Passenger transport facilities; Respite day care centres; Roads; Self-storage units; Take away food and drink premises; Vehicle sales or hire premises; Warehouse or distribution centres; Any other development not specified in item 2 or 4	
	Prohibited	
	Advertising structures; Agriculture; Air transport facilities; Amusement centres; Animal boarding or training establishments; Boat building and repair facilities; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Correctional centres; Crematoria; Depots; Eco-tourist facilities; Entertainment facilities; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Forestry; Freight transport facilities; Function centres; Heavy industrial storage establishments; Highway service centres; Home-based child care; Home businesses; Home occupations; Home occupations (sex services); Industrial retail outlets; Industrial training facilities; Industries; Information and education facilities; Marinas; Mooring pens; Moorings; Office premises; Open cut mining; Port facilities; Recreation facilities (major); Recreation facilities (outdoor); Research stations; Residential accommodation; Retail premises; Rural industries; Sex services premises; Storage premises; Tourist and visitor accommodation; Waste or resource management facilities; Water recreation structures; Wharf or boating facilities; Wholesale supplies	

B6 Enterprise corridor existing zone review

TABLE 276: ZONE B6 ENTERPRISE CORRIDOR COMPARATIVE ANALYSIS

MANLY LEP 2013	WARRINGAH LEP 2011	PITTWATER LEP 2014
	Objectives	
▪ To promote businesses along main roads and to encourage a mix of compatible uses. ▪ To provide a range of employment uses (including business, office, retail and light industrial uses). ▪ To maintain the economic strength of centres by limiting retailing activity.	N/A	▪ To promote businesses along main roads and to encourage a mix of compatible uses. ▪ To provide a range of employment uses (including business, office, retail and light industrial uses). ▪ To maintain the economic strength of centres by limiting retailing activity. ▪ To provide healthy, attractive, functional and safe enterprise corridors.
	Permitted without consent	
Nil	N/A	Nil
	Permitted with consent	
Amusement centres; Business premises; Community facilities; Depots; Environmental facilities; Environmental protection works; Flood mitigation works; Garden centres; Hardware and building supplies; Helipads; Hotel or motel accommodation; Industrial retail outlets; Kiosks; Landscaping material supplies; Light industries; Markets; Mortuaries; Office premises; Passenger transport facilities; Plant nurseries; Recreation facilities (indoor); Restaurants or cafes; Restricted premises; Roads; Service stations; Sex services premises; Shops; Signage; Take away food and drink premises; Timber yards; Vehicle repair stations; Vehicle sales or hire premises; Veterinary hospitals; Warehouse or distribution centres; Water recycling facilities; Water supply systems; Wholesale supplies		Business premises; Car parks; Community facilities; Environmental protection works; Garden centres; Hardware and building supplies; Hotel or motel accommodation; Information and education facilities; Kiosks; Landscaping material supplies; Light industries; Neighbourhood shops; Passenger transport facilities; Plant nurseries; Recreation areas; Recreation facilities (indoor); Research stations; Roads; Service stations; Signage; Storage premises; Vehicle body repair workshops; Vehicle repair stations; Vehicle sales or hire premises; Veterinary hospitals; Warehouse or distribution centres; Wholesale supplies
	Prohibited	
Water treatment facilities; Any other development not specified in item 2 or 3		Any development not specified in item 2 or 3

B7 Business Park existing zone review

TABLE 277: ZONE B7 BUSINESS PARK COMPARATIVE ANALYSIS

MANLY LEP 2013	WARRINGAH LEP 2011	PITTWATER LEP 2014
Objectives		
N/A	▪ To provide a range of office and light industrial uses. ▪ To encourage employment opportunities. ▪ To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area. ▪ To create business park employment environments of high visual quality that relate favourably in architectural and landscape treatment to neighbouring land uses and to the natural environment. ▪ To minimise conflict between land uses in the zone and adjoining zones and ensure the amenity of adjoining or nearby residential land uses	▪ To provide a range of office and light industrial uses. ▪ To encourage employment opportunities. ▪ To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area. ▪ To provide healthy, attractive, functional and safe business areas.
Permitted without consent		
N/A	Nil	Nil
Permitted with consent		
	Centre-based child care facilities; Garden centres; Hardware and building supplies; Light industries; Neighbourhood shops; Office premises; Passenger transport facilities; Respite day care centres; Roads; Self-storage units; Take away food and drink premises; Warehouse or distribution centres; Any other development not specified in item 2 or 4	Boat building and repair facilities; Centre-based child care facilities; Community facilities; Depots; Environmental protection works; Funeral homes; Garden centres; Hardware and building supplies; Horticulture; Industrial retail outlets; Industrial training facilities; Kiosks; Light industries; Mortuaries; Neighbourhood shops; Office premises; Passenger transport facilities; Recreation areas; Recreation facilities (indoor); Research stations; Respite day care centres; Restaurants or cafes; Roads; Service stations; Signage; Storage premises; Take away food and drink premises; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Vehicle sales or hire premises; Warehouse or distribution centres; Wholesale supplies

Prohibited		
	Advertising structures; Agriculture; Air transport facilities; Amusement centres; Animal boarding or training establishments; Boat building and repair facilities; Boat sheds; Business premises; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Correctional centres; Crematoria; Depots; Eco-tourist facilities; Entertainment facilities; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Forestry; Freight transport facilities; Function centres; Heavy industrial storage establishments; Highway service centres; Home-based child care; Home businesses; Home occupations; Home occupations (sex services); Industrial retail outlets; Industrial training facilities; Industries; Information and education facilities; Marinas; Mooring pens; Moorings; Open cut mining; Places of public worship; Port facilities; Recreation facilities (major); Registered clubs; Research stations; Residential accommodation; Restricted premises; Retail premises; Rural industries; Service stations; Sex services premises; Storage premises; Tourist and visitor accommodation; Transport depots; Vehicle body repair workshops; Vehicle repair stations; Veterinary hospitals; Waste or resource management facilities; Water recreation structures; Wharf or boating facilities; Wholesale supplies	Any development not specified in item 2 or 3

IN1 General Industrial existing zone review

TABLE 278: ZONE IN1 GENERAL INDUSTRIAL COMPARATIVE ANALYSIS

MANLY LEP 2013	WARRINGAH LEP 2011	PITTWATER LEP 2014
	Objectives	
N/A	▪ To provide a wide range of industrial and warehouse land uses. ▪ To encourage employment opportunities. ▪ To minimise any adverse effect of industry on other land uses. ▪ To support and protect industrial land for industrial uses. ▪ To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area. ▪ To enable a range of compatible community and leisure uses. ▪ To maintain the industrial character of the land in landscaped settings.	N/A
	Permitted without consent	
	Nil	
	Permitted with consent	
	Boat building and repair facilities; Depots; Freight transport facilities; Garden centres; General industries; Hardware and building supplies; Industrial retail outlets; Industrial training facilities; Light industries; Liquid fuel depots; Neighbourhood shops; Places of public worship; Roads; Storage premises; Take away food and drink premises; Timber yards; Vehicle body repair workshops; Vehicle repair stations; Vehicle sales or hire premises; Warehouse or distribution centres; Any other development not specified in item 2 or 4	

Prohibited
Advertising structures; Agriculture; Air transport facilities; Amusement centres; Animal boarding or training establishments; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Commercial premises; Correctional centres; Crematoria; Eco-tourist facilities; Educational establishments; Entertainment facilities; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Forestry; Function centres; Health services facilities; Heavy industrial storage establishments; Heavy industries; Highway service centres; Home-based child care; Home businesses; Home occupations; Home occupations (sex services); Information and education facilities; Marinas; Mooring pens; Moorings; Open cut mining; Passenger transport facilities; Port facilities; Recreation facilities (major); Recreation facilities (outdoor); Registered clubs; Research stations; Residential accommodation; Restricted premises; Rural industries; Tourist and visitor accommodation; Veterinary hospitals; Water recreation structures; Wharf or boating facilities

IN2 Light Industrial existing zone review

TABLE 279: ZONE IN2 LIGHT INDUSTRIAL COMPARATIVE ANALYSIS

MANLY LEP 2013	WARRINGAH LEP 2011	PITTWATER LEP 2014
	Objectives	
N/A	▪ To provide a wide range of light industrial, warehouse and related land uses. ▪ To encourage employment opportunities and to support the viability of centres. ▪ To minimise any adverse effect of industry on other land uses. ▪ To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area. ▪ To support and protect industrial land for industrial uses. ▪ To maintain the industrial character of the land in landscaped settings.	▪ To provide a wide range of light industrial, warehouse and related land uses. ▪ To encourage employment opportunities and to support the viability of centres. ▪ To minimise any adverse effect of industry on other land uses. ▪ To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area. ▪ To support and protect industrial land for industrial uses. ▪ To enable a range of compatible services, community and recreation uses. ▪ To accommodate uses that, because of demonstrated special building or site requirements or operational characteristics, cannot be or are inappropriate to be located in other zones. ▪ To provide healthy, attractive, functional and safe light industrial areas.
	Permitted without consent	
	Nil	
	Permitted with consent	
	Depots; Garden centres; Hardware and building supplies; Industrial training facilities; Light industries; Neighbourhood shops; Places of public worship; Roads; Storage premises; Take away food and drink premises; Warehouse or distribution centres; Any other development not specified in item 2 or 4	Animal boarding or training establishments; Boat building and repair facilities; Crematoria; Depots; Environmental protection works; Freight transport facilities; Funeral homes; Garden centres; Hardware and building supplies; Horticulture; Industrial retail outlets; Industrial training facilities; Landscaping materials supplies; Light industries; Mortuaries; Neighbourhood shops; Places of public worship; Recreation facilities (indoor); Roads; Service stations; Signage; Storage premises; Take away food and drink premises; Timber yards; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Vehicle sales or hire premises; Warehouse or distribution centres; Waste disposal facilities; Water supply systems; Wholesale supplies

Prohibited		
	Advertising structures; Agriculture; Air transport facilities; Amusement centres; Animal boarding or training establishments; Boat building and repair facilities; Boat sheds; Camping grounds; Caravan parks; Car parks; Cemeteries; Charter and tourism boating facilities; Commercial premises; Correctional centres; Crematoria; Eco-tourist facilities; Educational establishments; Entertainment facilities; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Forestry; Freight transport facilities; Function centres; Health services facilities; Heavy industrial storage establishments; Highway service centres; Home-based child care; Home businesses; Home occupations; Home occupations (sex services); Industrial retail outlets; Industries; Information and education facilities; Marinas; Mooring pens; Moorings; Open cut mining; Passenger transport facilities; Port facilities; Recreation facilities (indoor); Recreation facilities (major); Recreation facilities (outdoor); Registered clubs; Research stations; Residential accommodation; Restricted premises; Rural industries; Service stations; Sex services premises; Tourist and visitor accommodation; Transport depots; Vehicle body repair workshops; Vehicle repair stations; Veterinary hospitals; Waste or resource management facilities; Water recreation structures; Wharf or boating facilities; Wholesale supplies	Any development not specified in item 2 or 3

IN2 Working Waterfront existing zone review

TABLE 280: ZONE IN4 WORKING WATERFRONT COMPARATIVE ANALYSIS

MANLY LEP 2013	WARRINGAH LEP 2011	PITTWATER LEP 2014
Objectives		
N/A	N/A	▪ To ensure that development does not have an adverse impact on the environmental and visual qualities of the foreshore. ▪ To encourage employment opportunities. ▪ To minimise any adverse effect of development on land uses in other zones. ▪ To provide for water-based business and service facilities that serve Pittwater and the wider region
Permitted without consent		
	Nil	
Permitted with consent		
		Boat building and repair facilities; Boat launching ramps; Charter and tourism boating facilities; Environmental protection works; Industrial retail outlets; Jetties; Kiosks; Light industries; Marinas; Roads; Signage; Water recreation structures; Wharf or boating facilities

	Prohibited	
		Any development not specified in item 2 or 3

RU4 Primary Production small lots existing zone review

TABLE 281: ZONE RU4 PRIMARY PRODUCTION SMALL LOTS COMPARATIVE ANALYSIS

MANLY LEP 2013	WARRINGAH LEP 2011	PITTWATER LEP 2014
	Objectives	
N/A	▪ To enable sustainable primary industry and other compatible land uses. ▪ To encourage and promote diversity and employment opportunities in relation to primary industry enterprises, particularly those that require smaller lots or that are more intensive in nature. ▪ To minimise conflict between land uses within this zone and land uses within adjoining zones ▪ To minimise the impact of development on long distance views of the area and on views to and from adjacent national parks and bushland. ▪ To maintain and enhance the natural landscape including landform and vegetation. ▪ To ensure low intensity of land use other than land uses that are primary industry enterprises. ▪ To maintain the rural and scenic character of the land	N/A
	Permitted without consent	
	Home occupations; Home-based child care;	
	Permitted with consent	
	Animal boarding or training establishments; Aquaculture; Bed and breakfast accommodation; Building identification signs; Business identification signs; Child care centres; Community facilities; Dwelling houses; Environmental protection works; Extensive agriculture; Farm buildings; Home businesses; Home industries; Intensive plant agriculture; Landscaping material supplies; Plant nurseries; Recreation areas; Respite day care centres; Roads; Roadside stalls; Rural supplies; Veterinary hospitals	
	Prohibited	
	Any development not specified in item 2 or 3	

SP3 Tourism existing zone review

TABLE 282: ZONE SP3 TOURISM COMPARATIVE ANALYSIS

MANLY LEP 2013	WARRINGAH LEP 2011	PITTWATER LEP 2014
	Objectives	
▪ To provide for a variety of tourist-oriented development and related uses.	N/A	▪ To provide for a variety of tourist-oriented development and related uses.
	Permitted without consent	
Nil	N/A	Roads
	Permitted with consent	
Aquaculture; Building identification signs; Business identification signs; Environmental protection works; Flood mitigation works; Food and drink premises; Roads; Tourist and visitor accommodation; Water recycling facilities; Water reticulation systems; Water storage facilities		Aquaculture; Camping grounds; Caravan parks; Eco-tourist facilities; Food and drink premises; Function centres; Information and education facilities; Tourist and visitor accommodation
	Prohibited	
Any other development not specified in item 2 or 3		Any development not specified in item 2 or 3

APPENDIX 6 – URBAN SERVICES SUMMARY

This appendix contains summaries of the GSC's Urban Services database information for the Northern Beaches' identified industrial precincts.

Table 1: Jobs in Northern Beaches LGA industrial and urban services land

Source: GSC 2016 industrial database

	Brookvale	Harbord	Mona Vale	North Narrabeen	Manly Vale	Forestville	Warriewood Valley	Cromer	Campbell Parade, Manly Vale	Tepko Rd, Terrey Hills	Queens Pde, Newport	Princes Lane, Newport	McCarrs Creek Rd, Church Point	Pittwater Rd, Church Point	Pittwater Rd, Bayview
Total	12,606	1,066	1,906	387	1,274	1,187	3,674	2,096	658	1,710	722	474	172	112	534

Table 2: Jobs in Northern Beaches LGA GVA by industrial precinct

Source: GSC 2016 industrial database

	Brookvale	Harbord	Mona Vale	North Narrabeen	Manly Vale	Forestville	Warriewood Valley	Cromer	Campbell Parade, Manly Vale	Tepko Rd, Terrey Hills	Queens Pde, Newport	Princes Lane, Newport	McCarrs Creek Rd, Church Point	Pittwater Rd, Church Point	Pittwater Rd, Bayview
Total ($m)	$1,621	$142	$239	$43	$388	$121	$471	$300	$127	$207	$123	$73	$44	$29	$89

Table 3: Northern Beaches LGA industrial precinct typologies Source: GSRP, GSC industrial snapshots, relevant council			
Industrial Precinct (IP)	GSRP description	Snapshot assessment[102]	Northern Beaches LGA Comments
Brookvale	Retain and Manage		
Harbord	Retain and Manage		
Mona Vale	Retain and Manage		
North Narrabeen	Retain and Manage		
Manly Vale	Retain and Manage		
Forestville	Retain and Manage		
Warriewood Valley	Retain and Manage		
Cromer	Retain and Manage		
Campbell Parade, Manly Vale	Retain and Manage		
Tepko Rd, Terrey Hills	Metropolitan Rural Area		
Queens Pde, Newport	Metropolitan Rural Area		
Princes Lane, Newport	Metropolitan Rural Area		
McCarrs Creek Rd, Church Point	Retain and Manage		
Pittwater Rd, Church Point	Metropolitan Rural Area		
Pittwater Rd, Bayview	Retain and Manage		

[102] Sourced from Hill PDA, Mecone and Urbis snapshot reports

Table 4: Northern Beaches LGA industrial precinct capacity (hectares) Source: GSC 2016 industrial database				
Industrial Precinct (IP)	Total	Developed	Serviced but undeveloped	Unserviced and undeveloped
Brookvale	86.3	86.3	0.0	0.0
Harbord	2.7	2.7	0.0	0.0
Mona Vale	22.5	22.4	0.0	0.1
North Narrabeen	2.5	2.5	0.0	0.0
Manly Vale	10.1	9.9	0.0	0.2
Forestville	2.2	2.2	0.0	0.0
Warriewood Valley	16.3	15.8	0.0	0.5
Cromer	44.2	44.1	0.0	0.1
Campbell Parade, Manly Vale	1.8	1.8	0.0	0.0
Tepko Rd, Terrey Hills	5.2	5.2	0.0	0.0
Queens Pde, Newport	0.2	0.2	0.0	0.0
Princes Lane, Newport	0.2	0.2	0.0	0.0
McCarrs Creek Rd, Church Point	0.7	0.7	0.0	0.0
Pittwater Rd, Church Point	0.4	0.4	0.0	0.0
Pittwater Rd, Bayview	0.4	0.4	0.0	0.0
Total	**195.7**	**194.8**	**0.0**	**0.0**

Table 8 (2016): Jobs in Northern Beaches LGA local centres (LC)

Set out as per Table 7 above.

Table 9 (2011): Northern Beaches LGA Total employment Source: Tables 5 & 7 and ELDM industrial database								
	Metropolitan & strategic centres		Local centres		Industrial & urban services land (if available)		Total	
	No	%	No	%	No	%	No	%
Total					27,591	100%		

Table 10 (2016): Northern Beaches LGA Total employment

Table 10 (2016): Northern Beaches LGA Total employment Source: Tables 1, 6 & 8 and GSC 2016 industrial database								
	Metropolitan & strategic centres		Local centres		Industrial & urban services land (if available)		Total	
	No	%	No	%	No	%	No	%
Total					28,578	100%		

Table 11: Northern Beaches LGA Change in total employment 2011-2016 Source: Table 7 &10				
	Metropolitan & strategic centres	Local centres	Industrial & urban services land	Total
Total			987	

APPENDIX 7 – BROAD INDUSTRY CATEGORIES

Broad Industry Categories (BIC) definition

In conjunction with the Greater Sydney Commission (GSC), SGS Economics and Planning has categorised ANZSIC Divisions into four broad Industry Groups (also known as Broad Industry Categories – BIC). The following table illustrates the classification.

TABLE 283: INDUSTRY GROUPS

ANZSIC 2006 Division Code	ANZSIC 2006 Division Title	Group
J	Information Media and Telecommunications	Knowledge Intensive
K	Financial and Insurance Services	Knowledge Intensive
L	Rental, Hiring and Real Estate Services	Knowledge Intensive
M	Professional, Scientific and Technical Services	Knowledge Intensive
N	Administrative and Support Services	Knowledge Intensive
O	Public Administration and Safety	Knowledge Intensive
P	Education and Training	Health and Education
Q	Health Care and Social Assistance	Health and Education
E	Construction	Population Serving
G	Retail Trade	Population Serving
H	Accommodation and Food Services	Population Serving
R	Arts and Recreation Services	Population Serving
S	Other Services	Population Serving
A	Agriculture, Forestry and Fishing	Industrial
B	Mining	Industrial
C	Manufacturing	Industrial
D	Electricity, Gas, Water and Waste Services	Industrial
F	Wholesale Trade	Industrial
I	Transport, Postal and Warehousing	Industrial

Source: ABS ANZSIC 2006 Support Tool, SGS Economics and Planning and GSC 2016