

East Leppington Employment & Retail Study

Final Report

Department of Planning & Infrastructure

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Executive summary.....	3
1 Introduction.....	9
1.1 Brief	9
1.2 Context	9
1.3 Report structure	10
2 Existing strategies, policies and plans.....	12
2.1 State & regional strategies.....	12
2.2 Planning for growth centres	19
2.3 SW Growth Centre precinct planning.....	25
2.4 Relevant studies.....	30
3 Supply audit.....	34
3.1 Existing and planned supply in centres	34
3.2 Planned supply in SWGC precincts	38
3.3 Centres hierarchy	41
4 East Leppington development potential	42
4.1 Planning framework	43
4.2 Indicative layout plan.....	44
4.3 MacroPlan study	46
5 Demand analysis	47
5.1 Population projection	47
5.2 Retail demand analysis.....	47
5.3 Population driven employment demand	52
5.4 Strategic 'footloose' employment demand.....	54
6 Assessment of town centre proposal	60
6.1 Definition of retail system.....	60
6.2 Available retail expenditure.....	61
6.3 Average RTD calculation	62
6.4 Retail gravity model impact	63
6.5 Floorspace thresholds over time	67
7 Retail visitation and car parking	68
7.1 Trips entering the Precinct	68
7.2 Trips leaving the Precinct.....	69
7.3 Car parking.....	69

Table of Contents

8	Preferred centres hierarchy	72
8.1	Options	72
8.2	Preferred centres hierarchy.....	77
9	Conclusions.....	81
	Appendix A - Retail category definitions	82
	Appendix B – Retail expenditure forecasts by TZ	83
	Appendix C – Metropolitan Plan for Sydney 2036 centre type hierarchy	84
	Appendix D – SGS responses to key issues in submissions.....	87

Executive summary

SGS Economics and Planning has been commissioned by the Department of Planning and Infrastructure (DP&I) to undertake an Employment and Retail Study for the East Leppington Precinct, within the *South West Growth Centre Structure Plan*.

This executive summary outlines the key findings of the study.

Structure Plan

The *South West Growth Centre Structure Plan* guides the location of town centres, neighbourhood centres, industrial and other employment areas. The East Leppington Precinct is located in close proximity to Leppington Major Town Centre and Catherine Fields North Town/Village Centre. The Edmondson Park Town Centre is also located in a new release area to the NE of the Precinct.

The Structure Plan envisaged that the East Leppington Precinct would accommodate some 3,000 dwellings, an additional 8,000 population and include two to three walkable neighbourhood centres. The Precinct has not been designated for the location of large-scale employment or industrial lands.

Precinct planning

As part of the preparation of a Draft Indicative Layout Plan, the yield for the full development of the Precinct has been revised to 4519 dwellings and a population of 13,557 additional residents by 2031. The rate of development is based on DP&I estimates of construction of 300 dwellings per annum across the period 2014 to 2031.

In addition to the changes to the yield for the Precinct, an upgrade of the Camden Valley Way is proposed to be completed by 2015. This would involve works to widen the road to four lanes and to upgrade intersections with traffic lights at Raby, St Andrews and Heath Roads. As part of the works to Camden Valley Way, Denham Court Road at the intersection with Camden Valley Way would also be upgraded. The impact of this upgrade on location of employment lands in the East Leppington Precinct has been considered as part of this study.

Retail analysis

A retail demand assessment was completed to estimate the supportable retail floor space for neighbourhood centres within the Precinct. As shown in the table below, the total demand by 2031 is estimated to be around 8400 square metres. This includes demand for approximately 5200 square metres of supermarket floor space. This assumes that 22 percent of the resident retail expenditure in the Precinct would be captured within the neighbourhood centre.

Neighbourhood Centre – floorspace demand

	2016	2021	2026	2031
Supermarket	898	2,529	4,314	5,250
Other food	127	358	611	744
Clothing	-	-	-	-
Household	56	158	270	328
Other Retail	145	407	695	845
Hospitality and Services	213	599	1,021	1,243
Total floor space	1,439	4,051	6,911	8,410

Source: SGS, 2012

To test the sensitivities of floor space demand to the alternative retention rates, a high retention rate of 25 percent and low retention rate of 19 percent was separately modelled. The high scenario results in demand for approximately 9500 square metres, while the low scenario suggests 7200 square metres of floor space. In broad terms, the sensitivity tests suggest that neighbourhood centre retail floor space demand for the Precinct would range between 7200 and 9500 square metres.

Employment analysis

An analysis of demand for employment lands in the Precinct was completed. This considered population driven employment, and a review of the impact of the upgrade of Camden Valley Way on the relative attractiveness of the precinct for strategic or 'footloose' employment uses.

The analysis shows that of population driven employment, there would be 1239 jobs generated by the incoming East Leppington population. Of these it is projected that 237 jobs (excluding retail) will most likely be located within the Precinct. These jobs are converted to floor space using floor space per job ratios, based on previous SGS research. Converted to floor space, these 237 jobs translate to approximately 11,944 square meters of additional floor space by 2031 within the precinct, as per the table below.

Population driven employment – floorspace demand

Description	Fsp per job (sqm)	2011-2016	2016-2021	2021-2026	2026-2031
Local light industrial and urban support	60	373	994	1,615	1,871
Health services	70	851	2,268	3,686	4,270
Prim & sec. education and comm. services	40	1,156	3,082	5,008	5,802
Total floor space	-	2,379	6,343	10,308	11,944

Source: SGS, 2012

An analysis of strategic employment, suggests that whilst that access to the Precinct is improved, it would not impact on the projected allocation of strategic employment in this area. No allocation for strategic employment has been incorporated in the analysis of land use requirements.

Town centre retail analysis

In the *Retail and Employment Assessment: East Leppington* report prepared by MacroPlan in 2012, it was proposed that the East Leppington Precinct could support up to 22,000 square metres of retail floor space, including 20,000 square metres within one larger town centre located along Camden Valley Way and 2000 square metre floor space to be distributed across small neighbourhood centres. It is our understanding that this was based on early yield calculations for the Precinct.

A retail gravity model has been constructed to assess the impact on town and major centres of the introduction of a town centre at East Leppington at 2031. Within this system, planned town and major centres include:

- Leppington Major Centre
- Edmondson Park Town Centre, and
- Catherine Fields North Town Centre.

The table below shows the resultant turnover and RTD for each of these centres, in comparison to the base case (excluding the additional town centre)

Impact on other town and major centres – a town centre of 20,000 sqm

Scenarios		Leppington Major Centre	Edmondson Park Town Centre	Catherine Fields North Town Centre
Without town centre in East Leppington (Base)	Turnovers	\$912,714,738	\$152,102,348	\$114,076,681
	RTDs	\$7,021	\$7,605	\$7,605
With town centre in East Leppington (20,000 sqm)	Turnovers	\$798,254,738	\$132,133,390	\$105,609,459
	RTDs	\$6,140	\$6,607	\$7,041
% Impact		13%	13%	7%

Source: SGS, 2012

Significant retail impact is often measured by a reduction in turnover or RTD of 10 percent. In this case, both Leppington Major Centre and Edmondson Park Town Centre would be significantly affected by the introduction of the proposed town centre at East Leppington, with an expected reduction in turnover or RTD of 13 percent. Catherine Field North Town Centre would be less affected, as it would be surrounded by a relatively denser population.

The *Urbis Retail Average* (2009) suggests that a typical RTD for a sub-regional centre (which has at least a department store) and a regional centre with single discounted department store is around \$6260 and \$6780 respectively. According to this, both Leppington Major Centre and Edmondson

Park Town Centre would be underperforming, compared to the average performance of such centres.

An iterative analysis shows that an addition of around 15,000 square metres of local centre¹ retail floor space by 2031 would keep the performance of these planned centres just above the typical level. The resultant RTDs are shown in the table below.

Impact on other town and major centres – a local centre of 15,000 sqm retail floorspace

Scenarios		Leppington Major Centre	Edmondson Park Town Centre	Catherine Fields North Town Centre
Without local centre in East Leppington (Base)	Turnovers	\$912,714,738	\$152,102,348	\$114,076,681
	RTDs	\$7,021	\$7,605	\$7,605
With local centre in East Leppington	Turnovers	\$825,741,424	\$137,855,730	\$108,124,471
	RTDs	\$6,352	\$6,893	\$7,208
% Impact		9.5%	9.4%	5.2%

Source: SGS, 2012

It is, therefore, recommended that the retail floorspace for a large local centre be capped at 15,000 square metres at 2031 in the planning for the East Leppington Precinct.

Preferred centres hierarchy

Three options were considered for the distribution of employment and retail within the East Leppington Precinct. These included:

- Distribution of neighbourhood retail floor space across three walkable neighbourhood centres
- Distribution of neighbourhood retail floor space across two larger neighbourhood centres, or
- Location of retail floor space in a town centre of 20,000 square metres as per the proposal by Macro plan.

Following assessment of these options, it is proposed that a local centre be incorporated in the planning for East Leppington Precinct. The retail floor space for this local centre should be a maximum of 15,000 square metres.

In addition to the location of a large local centre, it is proposed that locations be selected for two neighbourhood centres within the Precinct, with a retail floor space of 2500 square metres and

¹ For the purpose of this report, a small town/village centre of 15,000 sqm is referred to as a local centre.

3500 square metres respectively. While a maximum floor space is proposed for neighbourhood retail, it is not proposed to incorporate any restriction on the timing for development of these centres. Demand for these centres will be linked to the population growth of the Precinct, and should be linked to the staging and location of development.

The purpose of retaining small neighbourhood centres within the Precinct is to promote walkability and accessibility from the local residents. Capping the local centre retail floorspace at 15,000 square metres would also make smaller centres viable, because the new retail floorspace would be attracted to the Precinct when the local centre is over-performing. In determining the floorspace for neighbourhood centres, the impact of the local centre capturing a portion of the neighbourhood expenditure and impacting on the viability has been incorporated.

As outlined in the table below, the distribution of floor space for the non-retail has been identified along with a calculation of land area required for each centre. Urban support and light industrial land use (if provided) should be located in an accessible location with good road access (such as through consolidating the existing service station DA approved on Camden Valley Way in the northern part of the Precinct).

In consultation with the master planner, the location proposed for the primary school has been in association with the SE neighbourhood centre (based on the preliminary ILP identification of a single primary school in a central location in the southern part of the Precinct). In regards to local health services, it is proposed to distribute these evenly amongst the local centre and two neighbourhood centres.

The minimum land use requirements are included in the table below. Note that we have taken out the land required for the primary school from the neighbourhood centre in the southern part, as this has been separately allowed in the ILP. We have also calculated the car parking requirement based on the minimum car parking rates (from Councils' DCPs) for retail and non-retail uses. These minimum rates are generally consistent with the rates suggested in the Draft Growth Centre DCPs being developed by Camden and Liverpool Councils for the Austral and other precincts.

Total floor space and land requirement

Description	Retail		Other employment uses		Car parking (spaces)		Total land area (sqm)
	Floor space (sqm)	Land Area (sqm)	Floor space (sqm)	Land Area (sqm)	Car spaces	Land Area (sqm)	
Local Centre	15,000	25,000	1,423	2,828	476	14,288	42,116
Neighbourhood Centre (N)	2,500	3,452	1,423	2,828	168	5,030	11,311
Neighbourhood Centre (SE)	3,500	4,833	2,423	5,146	247	7,417	17,396
Light industrial uses			1,871	4,449	26	786	5,235
Total	21,000	33,286	7,141	15,252	917	27,522	76,059

Source: SGS, 2012

The location of the local centre should balance the desire for access from surrounding areas to the west and south, whilst remaining accessible to future residents in the southern part of the East Leppington Precinct. In regards to the neighbourhood centres, we suggest that the two centres could be located within the north of the Precinct, and also within the south east, to maximise accessibility and walkability.

Update to the report following the public exhibition

A number of submissions in relation to the draft findings of this retail and employment study were received during the public exhibition of the *East Leppington Draft Precinct Planning Package*. SGS responses to these submissions are detailed in Appendix D.

Following the exhibition, this report has been updated to clarify that the recommended cap of 15,000 square metres GLA for the local centre only applies to the retail floorspace. The time restriction on the floor space provision of the local centre has also been removed from the Executive Summary of this report.

1 Introduction

1.1 Brief

SGS Economics and Planning has been commissioned by the NSW Department of Planning and Infrastructure to complete an employment and retail study for the East Leppington Precinct in the South West Growth Centre.

This employment and retail study will be one part of the precinct planning process, conducted as per the State Environmental Planning Policy (Sydney Region Growth Centres) and will input into the preparation of the Indicative Land Use Plan for the Precinct.

Key issues to be addressed in the study include:

- The identification of retail and commercial land use requirements for neighbourhood centres proposed under the SW Structure Plan for the East Leppington Precinct, and population thresholds for retail and employment land use over time
- Review the proposal by MacroPlan to incorporate a town centre in the East Leppington Precinct, and the impact on the proposed Leppington major centre and other town centres
- Identify recommendations for caps on floor space by centre type for the Precinct
- Estimate the number and type of jobs to be created in the East Leppington Precinct and employment density by development type
- Consider the impacts of an upgrade of Camden Valley Way on the proposals for employment and retail in the Precinct, and
- Identify car parking requirements

1.2 Context

The East Leppington Precinct was released for planning in November 2011. Precinct planning analyses the development potential of each of the Precincts in the Growth Centres and integrates preparation of local planning documents such as Development Control Plans and Section 94 contributions plans into the Precinct Planning processes. Each Precinct is planned via State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (the Growth Centres SEPP) as opposed to the traditional zoning processes. A number of studies are prepared, including a market analysis for retail and non-residential land uses, as key inputs into the preparation of an Indicative Layout Plan (ILP)

The site is 463 hectares in area and is located within three LGAs – Campbelltown, Liverpool and Camden. The precinct is bounded to the west by Camden Valley Way and St Andrews Road to the south. The northern boundary is formed by a water canal from Camden Valley Way to Denham Court Road. Approximately three-quarters of the lands in the Precinct are in a single ownership.

Within the *South West Growth Centre Structure Plan*, East Leppington is expected to accommodate some 3000 dwellings and approximately 8000 future residents and include two to three walkable neighbourhood centres. The Precinct is in close proximity to the proposed Leppington major centre and rail station. The Precinct is not identified as being the location of large-scale employment or industrial lands. It is envisaged that the development of the East Leppington Precinct will support the early development of the Leppington major centre.

The focus of employment strategies for the South West Growth Centre is to promote the availability of jobs locally and within the region. This promotes the creation of self-contained communities with the benefit of reducing both the demand for transport services into the Sydney CBD and the need for commuting.

The organisation of centres within the *South West Growth Centres Structure Plan* aims for new communities to have easy access to a full range of shops, recreational facilities and services. It is envisaged that these centres become the focal points for communities. At a neighbourhood level the smaller village centres containing neighbourhood shops are organised to maximise pedestrian access. Retail centres will have a distinct hierarchy from local shops, supermarkets and specialist shops through to major retail outlets. There is a proposed hierarchy of centres. Leppington is proposed as a Major Centre and will have railway access. The *Structure Plan* also identifies town and neighbourhood centres.

In 2012, MacroPlan undertook a retail and employment assessment for the East Leppington Precinct. The MacroPlan report suggested that the East Leppington Precinct could support up to 22,000 square meters of retail floorspace by 2031. The MacroPlan report did not support a network of two to three walkable neighbourhood centres for the East Leppington Precinct and offered an alternative of a consolidated, sub-regional town centre (located along Camden Valley Way) with capacity to accommodate about 20,000 square meters of retail. The additional retail space of 2000 square meters was proposed for smaller neighbourhood nodes (convenience top-up shopping) across the Precinct within appropriate residential zoned areas.

The MacroPlan report provides the following justification for the proposed sub-regional town centre:

- Servicing the broader northern section, over the medium term, as the required critical mass establishes for Leppington Major Centre.
- Support for non-retail employment uses and integrated mixed-use outcomes.
- Possibility to become an early employment provider and to capture some 'leaked' retail expenditure that currently leaves the region.

The proposed hierarchy and size of centres within the East Leppington Precinct, and the testing of a proposal for a town centre, will form part of the analysis contained in this study.

1.3 Report structure

The structure of this report includes the following sections:

- The first section will review the existing strategies, plans and reports relevant to the planning of the East Leppington Precinct. This will provide the strategic planning context and review progress to-date in planning for the Precinct.
- The second section will outline the results of an audit of current and planned supply of retail floor space in the surrounding system, relevant to decisions regarding the size and location of centres within the East Leppington Precinct.
- The third section will outline an analysis of retail and employment demand. This will consider retail demand generated by the proposed population growth in the East Leppington Precinct, and the demand for neighbourhood centres. In addition the population driven employment, and analysis of which components of this employment, could locate in the Precinct, and also an analysis of the impact of Camden Valley Way upgrade on the attractiveness of the Precinct for strategic or ‘footloose’ employment.
- The fourth section will develop an analysis of retail turnover densities and SGS’s retail gravity model to test the impact at 2031 of introduction of a 20000 square metres town centre, in the East Leppington Precinct, on surrounding centres, including the Leppington major centre, the proposed Edmondson Park and Catherine Fields North centres.
- The fifth section will consider issues such as employment density, retail visitation and car parking requirements.
- The sixth section will provide an analysis of three options for the centres hierarchy in the East Leppington Precinct, including the distribution of retail floor space into three walkable neighbourhood centres, the allocation of retail floor space into two larger neighbourhood centres, and the concentration of retail floor space into one town centre. A preferred centres hierarchy will be identified, along with indicative centre compositions and centre design principles.
- The final section outlines the conclusions for the study and recommendations for retail and employment land use in the Indicative Layout Plan.

2 Existing strategies, policies and plans

Planning for the East Leppington Precinct is influenced by a number of strategies, policies and plans, which will be considered as background for this study. These include:

- NSW 2021
- Metropolitan Plan for Sydney 2036
- 2005 Sydney's Metropolitan Strategy
- Draft South West Subregional Strategy 2007
- State Environmental Planning Policy (Sydney Region Growth Centres) 2006
- Employment Lands for Sydney 2007
- Growth Centres Development Code 2006
- Growth Centres Employment & Retail Strategy (SGS 2009)
- South West Structure Plan and Explanatory Notes
- Liverpool Retail Centres Hierarchy Review (Leyshon Consulting 2006)
- Liverpool Business Centres and Corridors Strategy (Liverpool City Council 2006)

In addition, there are a number of studies and planning for other Precincts which will be considered.

- Draft Indicative Layout Plan Austral & Leppington North Precincts
- Retail Floorspace Capacity and Staging Project (Hill PDA 2010)
- Employment and Industrial Assessment: Austral and Leppington North (Hill PDA 2010)

In regards to the East Leppington Precinct, the MacroPlan report into the retail and employment needs of the East Leppington Precinct will also be considered, in addition to the preliminary Indicative Land Use Plan prepared by LFA.

2.1 State & regional strategies

NSW 2021

NSW 2021 is a 10-year plan aiming to rebuild the NSW economy, provide quality services, renovate infrastructure, restore government accountability and strengthen NSW local environment and communities. It is the NSW Government's strategic business plan, setting priorities for action and guiding resource allocation. The Plan sets up the top priority – "Rebuild the Economy: restore economic growth and establish NSW as the 'first place in Australia to do business'". The strategy has six goals, namely to: improve the performance of the NSW economy; rebuild state finances; drive economic growth in regional NSW; increase the competitiveness of doing business in NSW; place downward pressure on the cost of living; and strengthen the NSW skill base. Each of the *NSW 2011* goals identifies targets. The target of the most relevance to this study is "growing employment by an average of 1.25 percent per year to 2020".

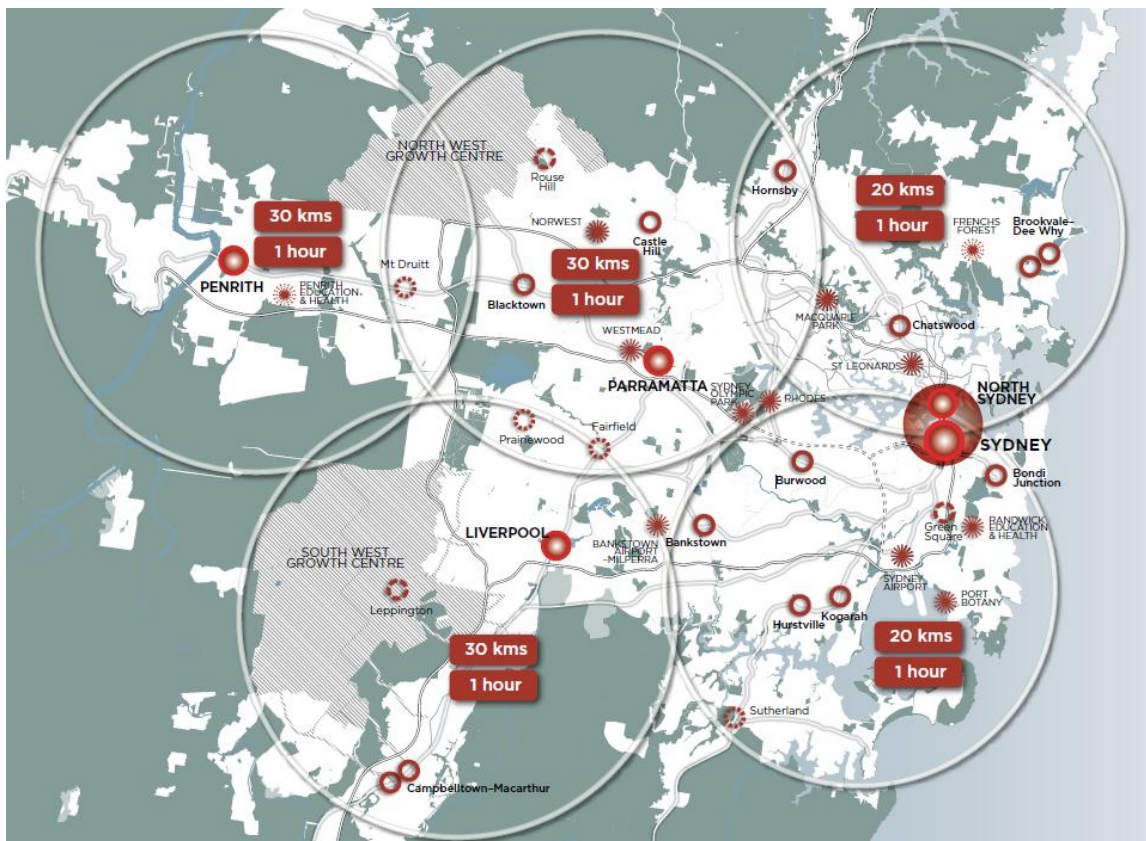
Metropolitan Plan for Sydney 2036 (2010)

The *Metropolitan Plan for Sydney 2036* (Department of Planning 2010) builds on the strategies and actions of the *Metropolitan Strategy City of Cities 2005*.

The Metropolitan Plan identifies Liverpool as one of three Regional Cities, with a core role in creating a series of connected cities, whereby everyone in the Sydney Metropolitan Area will be within 30 minutes travel by public transport to a Regional City (or Global Sydney) in the long term. Liverpool Regional City will serve the SWGC and surrounds (see Figure 1). The future directions for Liverpool Regional City are:

- Continue to plan for a liveable centre with major employment opportunities, retail and services supported by higher density housing within the walking catchment of the proposed train station.
- Ensure commercial uses are supported through planning controls.
- State Government support, such as the South West Rail Link and Department of Planning leading planning of the centre.

Figure 1. A city of cities concept



Source: Department of Planning, 2010

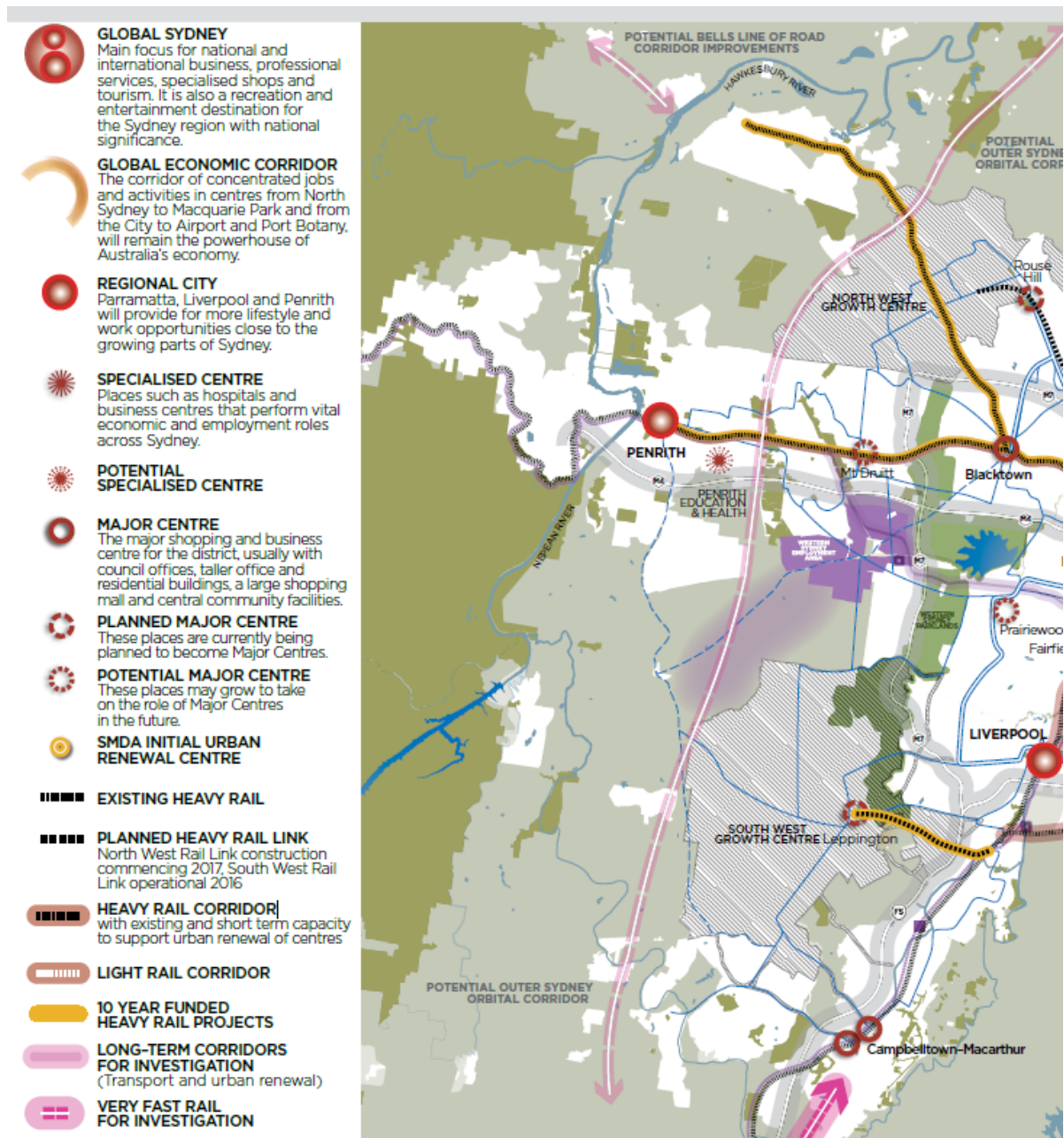
The Metropolitan Plan identifies Leppington as a Planned Major Centre (see Figure 2). Under the Metropolitan Plan, Planned Major Centres are “emerging locations for shopping, jobs and services in identified residential growth areas, and currently include Rouse Hill, Green Square and Leppington”.

According with the Metropolitan Plan, the employment growth for the South West is projected to reach 274,000 jobs in 2036, which implies 141,000 new jobs (106 percent growth between 2006 and 2036). Employment growth for Leppington Major Centre is planned to achieve 13,000 new jobs by 2036.

The dwelling target for the South West is 155,000 new dwellings from 2006 to 2036, including 83,000 in new release areas (Growth Centre and other greenfield releases in the subregion).

The Leppington Major Centre is proposed to be linked by rail to the wider metropolitan rail network via the SW Metropolitan Rail Extension (see Figure 2). This rail link is expected to be fully operational by 2016. The rail links will ultimately facilitate good connections to employment opportunities in the region, particularly towards central Sydney.








Figure 2. Metropolitan Sydney 2036



Source: Department of Planning, 2010

Figure 3 sets out the centres hierarchy, and walking catchments, for different centre types as outlined in the Metropolitan Plan.

Figure 3. Centres type

	CENTRE TYPE	BRIEF DESCRIPTION	APPROX WALKING CATCHMENT
STRATEGIC CENTRES The NSW Government has a strategic interest in the strength of these centres and leads their planning in conjunction with local government	GLOBAL SYDNEY 	Central Sydney & North Sydney Primary focus for national and international business. A cultural, recreation and entertainment destination for the Sydney region	2 km
	REGIONAL CITIES 	Parramatta, Liverpool & Penrith Operate as the 'capitals' of their regions, and contain a full range of services and activities	2 km
	MAJOR CENTRES 	The main shopping and business centres for their subregions	1 km
	SPECIALISED CENTRES 	Perform vital economic and employment roles across the metropolitan area. Include major airports, ports, hospitals, universities and clusters of research and business activities	1 km
LOCAL CENTRES Planning of these centres is led by local government in conjunction with the NSW Government	Town Centres 	A large group of shops and services	800 m
	Villages 	A group of shops and services for daily shopping	400-600 m
	Neighbourhood Centres 	A small group of shops and services. The smallest recognised centre type in this hierarchy	150-200 m

Source: Department of Planning, 2010

Draft SW Subregional Strategy (Department of Planning 2007)

The *Draft South West Subregional Strategy* informed the *Metropolitan Plan for Sydney 2036*. The Draft Subregional Strategy provided the following key directions for the SW subregion:

- Plan for employment and housing targets. These targets are 89,000 new jobs (74 percent increase) and 155,000 new dwellings between 2001 and 2031 for the subregion, including 100,000 new dwellings in the SWGC
- Develop Liverpool as a Regional City (doubling of jobs by 2031)
- Develop Campbelltown as a Major Centre
- Develop Leppington and a Planned Major Centre
- Strengthen the role of existing centres – focus on linkages between centres
- Improved access to, from and within the subregion
- Protect rural and resource lands
- Ensure sufficient supply of strategic employment lands to support key economic activities
- Promote environmental and scenic qualities of the region
- Focus on jobs closer to home
- Housing in centres consistent with their employment role

- Emphasis on commercial core zoning, and
- Concentrate retail activity in centres, business development zones and enterprise corridors.

Employment targets for the centres within the SW subregion are outlined in

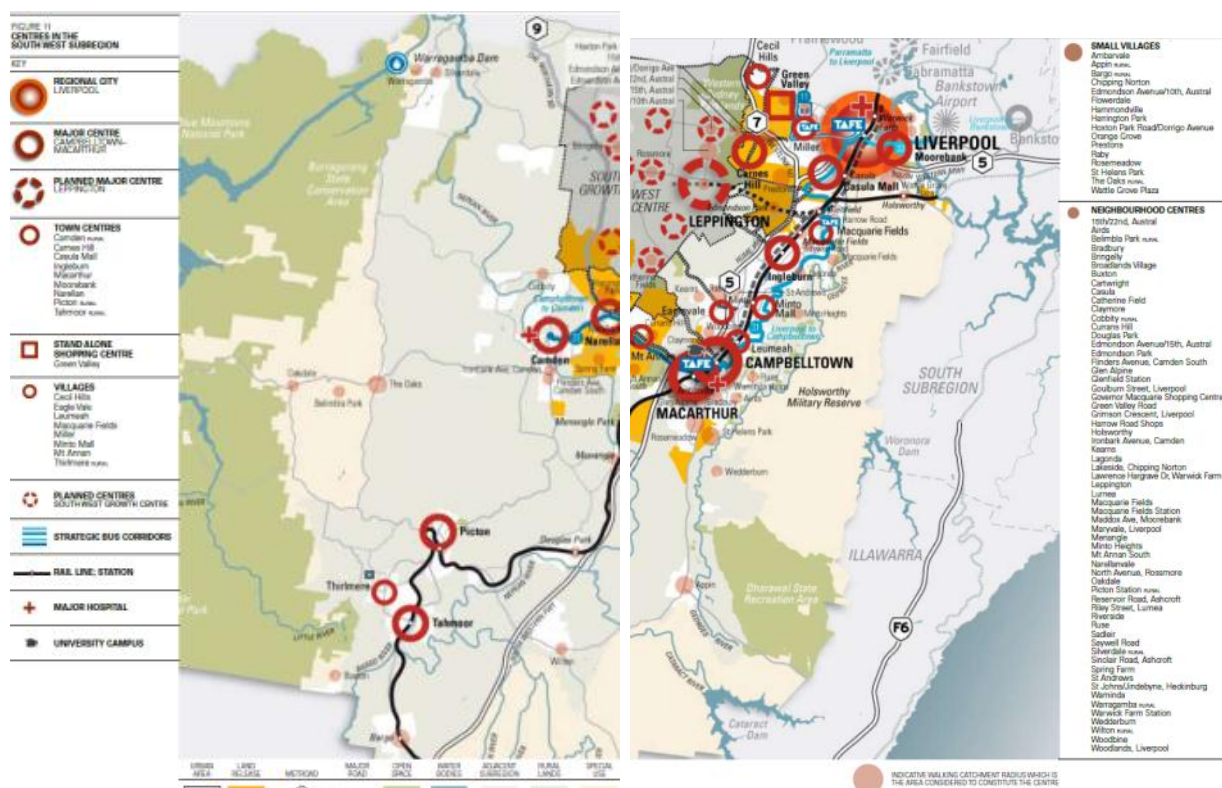
Table 1. SW subregion centres employment targets

Centre Type	Centre	2001 Employment	2031 Employment	Additional Employment	Change 2001- 2031
Regional City	Liverpool	15,550	30,000	+14,500	93%
Major Centre	Campbelltown- Macarthur	10,500	15,000	+4,500	42.3%
Planned Major Centre	Leppington	1,500	9,000	+7,500	492%

Source: Department of Planning, 2007

The *Draft South West Subregional Strategy* identifies a number of centres within the subregion as indicated in Figure 4.











Figure 4. South West Subregion Centres Map



Source: Department of Planning, 2007

Figure 5 sets out the centre hierarchy for different centre types within the South West within the subregion as outlined in the *Draft South West Subregional Strategy*.

Figure 5. South West subregion centres type

	CENTRE TYPE	RADII	SUMMARY
STRATEGIC CENTRES	 GLOBAL SYDNEY	2 km	The main focus for national and international business, professional services, specialised health and education precincts, specialised shops and tourism, it is also a recreation and entertainment destination for the Sydney region and has national and international significance.
	 REGIONAL CITY	2 km	Providing a full range of business, government, retail, cultural, entertainment and recreational activities, they are a focal point where large, growing regions can access good jobs, shopping, health, education, recreation and other services and not have to travel more than one hour per day.
	 SPECIALISED CENTRE	approx 1 km	Areas containing major airports, ports, hospitals, universities, research and business activities. These perform a vital economic and employment role which generate metropolitan-wide benefits.
	 MAJOR CENTRE	1 km	Major shopping and business centre serving immediate subregional residential population usually with a full scale shopping mall, council offices, taller office and residential buildings, central community facilities and a minimum of 8,000 jobs.
LOCAL CENTRES	 TOWN CENTRE	800 m	Town Centres have one or two supermarkets, community facilities, medical centre, schools, etc. Contain between 4,500 and 9,500 dwellings. Usually a residential origin than employment destination.
	 STAND ALONE SHOPPING CENTRE	N/A	Internalised, privately owned centres located away from other commercial areas, containing many of the attributes of a Town Centre but without housing or public open space—may have potential to become a traditional town centre in the long-term.
	 VILLAGE	600 m	A strip of shops and surrounding residential area within a 5 to 10 minute walk contains a small supermarket, hairdresser, take-away food shops. Contain between 2,100 and 5,500 dwellings.
	 SMALL VILLAGE	400 m	A small strip of shops and adjacent residential area within a 5 to 10 minute walk. Contain between 800 and 2,700 dwellings.
	 NEIGHBOURHOOD CENTRE	150 m	One or a small cluster of shops and services. Contain between 150 and 900 dwellings.
	 RURAL TOWN, VILLAGE OR NEIGHBOURHOOD CENTRE	as above	Located in rural zones outside metropolitan urban areas with similar roles to towns, villages and neighbourhoods but rural in character with a wider driving catchment.

Source: Department of Planning, 2010

Employment Lands for Sydney 2007

The *Employment Lands for Sydney Action Plan* was released in 2007 and aimed to address issues raised by a high-level task force of industry and government, who sought to advise the NSW Government on the current situation in regards to employment lands in NSW.

The plan outlined initiatives to advance the planning of employment lands in metropolitan Sydney, including establishment of an Employment Lands Development Program, a commitment to developing a state-wide Employment Lands SEPP, investigation of potential new Employment Lands and existing economic renewal areas, and creation of an ongoing Employment Lands Ministerial Advisory Committee.

The plan outlines the need for more clarity on the future role of employment lands and recommended that Subregional Strategies identify Strategically Important Employment Lands that should be retained for future employment purposes. The plan sets out a range of measures to ensure that State Significant Employment Lands are protected for employment purposes. This includes consideration of an Employment Lands SEPP to recognise and provide the development framework for employment lands across the State.

Five key areas of activity were identified in the plan, these are:

- Establish an Employment Lands Development Program to maintain the balance between demand and supply of employment land.
- Release more Greenfield land to overcome a shortage of supply.
- Develop new policy initiatives to encourage the regeneration of Brownfield sites to support new investment and employment opportunities.
- Employ more efficient processes for zoning and developing employment lands.
- Improve coordination between State Departments and Agencies, councils and industry to improve economic development opportunities associated with employment lands policy.

The *Employment Lands for Sydney Action Plan* identified that the SW sub-region (Liverpool, Camden and Campbelltown LGAs) has around 872.4 ha of business zoned lands and around 1,847 hectares of industrial zoned lands, which is over 13 percent of the total existing stock of employment lands in Sydney Greater Metropolitan Region.

The plan provides recommendations, of which the main objectives are to provide suitable employment lands sites in strategic locations, increase innovation and skills development, and improve opportunities and access to jobs for disadvantaged communities.

2.2 Planning for growth centres

State Environmental Planning Policy (Sydney Region Growth Centres) 2006

The *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* is the legal instrument that establishes the planning rules and objectives for the Growth Centres. The aims of the Growth Centres SEPP (in conjunction with amendments to the regulations under the Act relating to precinct planning) are to:

- co-ordinate the release of land for residential, employment and other urban development in the NW and SW Growth Centres of the Sydney Region
- enable the Minister from time to time to designate land in those growth centres as ready for release for development
- provide for comprehensive planning for those growth centres
- enable the establishment of vibrant, sustainable and liveable neighbourhoods that provide for community well-being and high quality local amenity
- provide controls for the sustainability of land in those growth centres that has conservation value
- provide for the orderly and economic provision of infrastructure in and to those growth centres
- provide development controls in order to protect the health of the waterways in those growth centres
- protect and enhance land with natural and cultural heritage value, and
- provide land use and development controls that will contribute to the conservation of biodiversity.

The SEPP and the *EP&A Amendment Regulation 2006* provide the statutory planning framework for the Growth Centres and establish the broad planning controls required to oversee the development of the Growth Centres. These instruments outline the statutory role of Structure Plans, Infrastructure Plan and the Development Code.

Growth Centres Development Code 2006

The *Growth Centres Development Code* (Growth Centres Commission 2006) sets out the 'planning rules' to guide new development from the initial staging for release, to the design of a Precinct, to how a neighbourhood will look on the ground. The Development Code outlines the process by which precinct plans can be developed, including the requirements on these plans for physical, transport and social infrastructure. The Development Code details requirements for employment, residential, school and leisure land uses and plays a key role in ensuring that Precinct Plans for each precinct address the provision of schools, housing, town centres, shops, parks and industrial areas in a manner that reflects the broad objectives of the SEPP, Regulation, Structure Plans and Infrastructure Plan.

The Development Code is designed to implement the following policies at the regional and neighbourhood levels:

- provide guidance on the precinct planning process
- promote best practice urban design
- increase housing choices
- provide employment for locals
- provide facilities and services at a local level, including parks, libraries, shops, schools and health facilities
- improve access to public transport, including links to railway lines

- encourage reduction of the reliance on private vehicles
- improve walking and cycling pathways, especially between residential areas and shops and schools
- provide a network of transport corridors to disperse traffic
- maintain the natural environment and visual character of the topography, vegetation and riparian corridors
- integrate existing infrastructure
- improve environmental benefits
- respect cultural heritage
- provide, protect and maintain a range of open space opportunities throughout the entire precinct, and
- provide a range of commercial and retail opportunities.

The Development Code aims to promote the availability of jobs locally and within the region as well as the creation of self-contained communities with the benefit of reducing both the demand for transport services into and the need for commuting.

The Development Code's key inputs to Precinct Planning for distribution of employment and retail in the SW Structure Plan include the following employment areas: retail centre; industrial /employment lands; and mixed use. Within the SW Structure Plan a centres hierarchy is based on the Precincts, proposed population and function (see Table 2).

Table 2. Centres structure

Classification	Characteristics
Major Centre	Key retail and activity centre for the broader community. Includes high level retail (Department Stores).
Town and Village Centre	Developed as a community heart, linking a number of adjacent communities to a central activity and community gathering point. Secondary retail (mini major, supermarket, specialist shops).
Walkable Communities	Linked to a small scale mixed use activity zone to encourage local community integration.

Source: Growth Centres Commission, 2006

The Development Code specifies that each centre should have a target range of estimated retail floor space, based on the population of the catchment. Suitable floor space range should be refined through the further detailed planning in preparation of an Indicative Layout Plan.

With regard to town/village centres and walkable (neighbourhood) centres the Development Codes' guidelines require:

- Villages serve surrounding residential area and are to be within a 400 to 800 metre walkable catchment
- Co-locate facilities as much as possible to maximise the use of spaces, and

- Neighbourhood centres are to provide community focus and employment opportunities by locating community facilities and commercial activities within them.

Growth Centres Employment & Retail Strategy (SGS 2009)

The Growth Centres Employment & Retail Strategy was completed by SGS for the GCC. The strategy provided for employment and retail within the Growth Centres and established an understanding of the employment opportunities and retail hierarchy.

Key employment issues relating to the SWGC were a projected gap between desired benchmark employment levels (as described by the ratio of local jobs to local resident labour force) and the base case employment projections to 2051. This projected the need for an additional 34,838 jobs needed for the Growth Centre to reach the benchmark (0.7). The strategy developed a more aggressive approach for the creation of jobs in the SWGC, particularly relating to the development and role of the Leppington Major Centre to drive local employment growth. The contribution of the East Leppington Precinct development to supporting the growth of a viable major centre at Leppington will be important to addressing the projected employment gap and meeting benchmark ratios between local jobs and population.

The Strategy proposed a series of actions. *Action 19* "Develop Leppington as a hybrid town centre / business park" recognises that Leppington should be a key focus for employment growth and economic development in the South West. It should be a major mixed-use centre and a focus for high-value knowledge jobs. In particular, the Strategy proposed that it should be a 'new generation' centre with a business park component to attract higher order jobs. The train station and access to the rail line presents an opportunity for a more sustainable business park and suburban centre model to develop. The opportunity is significant but the horizon is a long term one – thirty to fifty years given the lead times for other major centres such as Macquarie Park or Campbelltown.

The strategy proposed the need to establish a 'sustainable centres hierarchy' for the Growth Centres, with an approach which is less prescriptive for the centres below town centre in the centres hierarchy, with these centres being focused on establishing walkable neighbourhood centres.

Walkable neighbourhoods are units of development that are large enough to support the provision of daily needs – basic convenience shops and services, a primary school, essential community services and local parks. These neighbourhoods are, however, small enough that it is possible to walk comfortably within the neighbourhood. A mixed use local activity centre is a key element in this walkable neighbourhood concept. The retail element in this centre would vary between centres with a full line supermarket and specialty stores to smaller retail provision.

To ensure that walkable neighbourhood centres were viable to support more than a corner shop the structure plan proposal for 400 metres walkable catchments was recommended to be revised. Larger catchments of 800 metres were proposed in order to allow for a greater variety of local

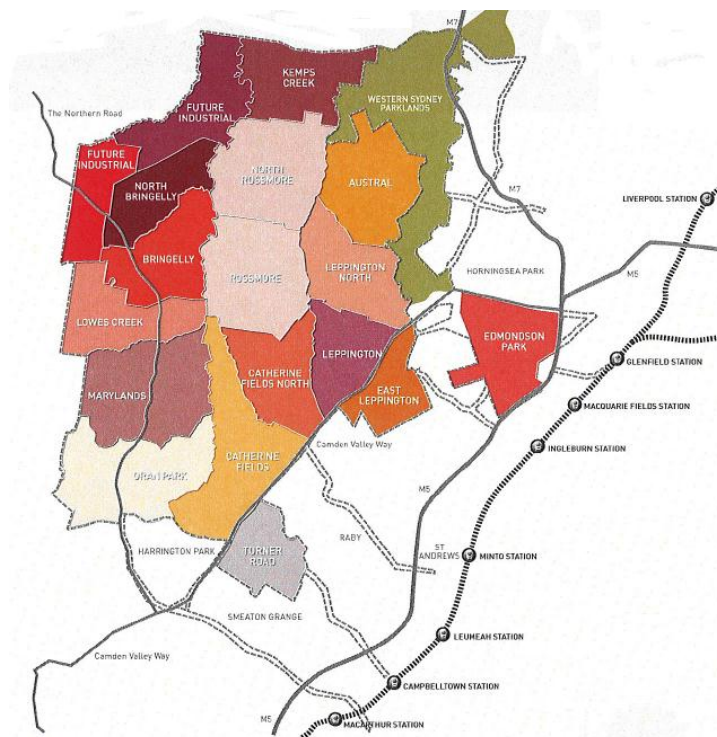
shopping and services. These catchments also needed to maintain a minimum density of housing across the catchment of 15 dwellings per hectare and planning to concentrate on pedestrian and cycle linkages.

South West Growth Centre Structure Plan 2012 and Explanatory Notes

The SW Structure Plan identifies the general pattern and strategic direction of development in the Growth Centre for 30 years. Further detail is provided as part of the Structure Plan - Explanatory Notes. The Structure Plan divides the SWGC into Precincts (see Figure 6) to facilitate the release of land over the next 25 to 30 years. The East Leppington Precinct is one of the proposed SWGC precincts. The Structure Plan sets out the requirements for each precinct and ensures that dwelling targets, employment opportunities, transport and infrastructure are developed and delivered in a coordinated manner.

The Structure Plan identifies the following centres in the SWGC: a Major Town Centre at Leppington, Town Centre at Edmondson Park as well as potential Town /Village Centres at Oran Park, Austral, Rossmore, North Rossmore, North Bringelly, Bringelly, Catherine Fields North, and Catherine Fields.

Figure 6. South West Growth Centre Precincts

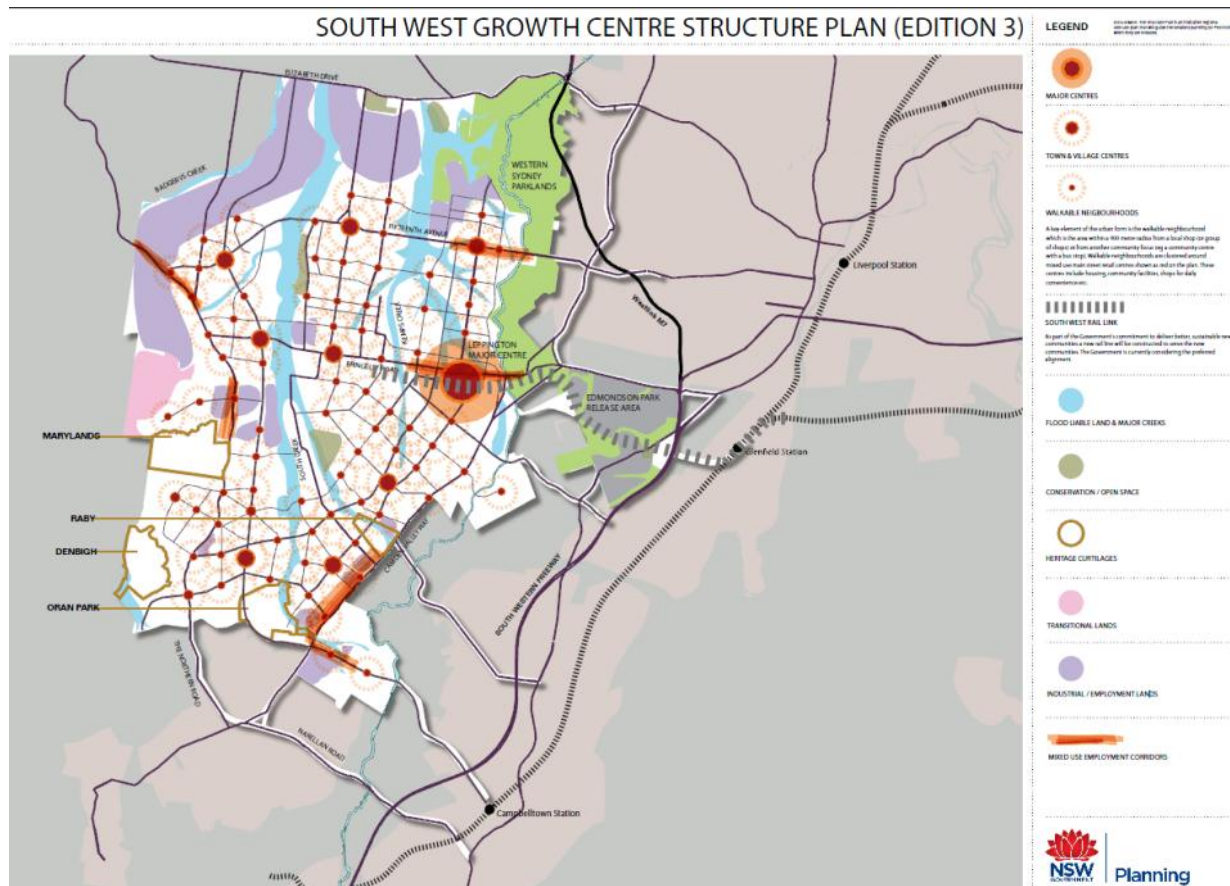


Source: DP&I 2012

Figure 7 shows the *South West Growth Centre Structure Plan* (Edition 3). The SWGC is planned to accommodate 274,500 new residents as it develops over the next 30 to 40 years. The estimated

number of dwellings to be accommodated in the whole SWGC is around 100,000 (also according with the Metropolitan Strategy), plus around 8000 in the Edmondson Park Precinct.

Figure 7. South West Growth Centre Structure Plan (Edition 3)



Source: DP&I 2012

According with the Structure Plan, the East Leppington Precinct has capacity for 3000 dwelling and 8000 people housing and population targets. Two or three neighbourhood centres are planned within the Precinct. According with the Structure Plan, the East Leppington Precinct is to be developed as a Walkable Neighbourhood, which is to provide community facilities, basic retail and public transport facilities. There are no industrial or significant retail provisions to be made for the area.

The Structure Plan guides the location of town centres, neighbourhood centres, industrial and other employment areas. The East Leppington Precinct is located in close proximity to Leppington Major Town Centre and Catherine Fields North Town/Village Centre. Under the Structure Plan, Leppington Major Centre has a population base of 74,000 people and 27,000 dwellings. Leppington Major Centre will be the largest centre in the SWGC and is being planned now to ensure employment,

shopping, essential services and entertainment are available to cater for the population's growing needs. The retail floor space estimates for Leppington Major Centre are 60,000 to 80,000 square meters (includes two supermarkets and one to two department stores). Catherine Fields North has a population base of 22,000 people and 8000 dwellings, with the retail floor space estimates being 15,000 to 25,000 square meters (includes two supermarkets).

Opportunities for mixed use employment corridors near the East Leppington Precinct are Bringelly Road near the Leppington Major Centre and Camden Valley Way near Catherine Fields and Badgally Road. Mixed use employment corridors provide an opportunity for a variety of commercial and industrial uses to take advantage of high levels of passing trade.

The Structure Plan lists the proposed route for the SW Rail Link. The rail line will extend from Glenfield rail station to Leppington with a station at Edmondson Park. A train stabling yard will also be built at Leppington. The delivery of the rail line will be staged to match growth in the area.

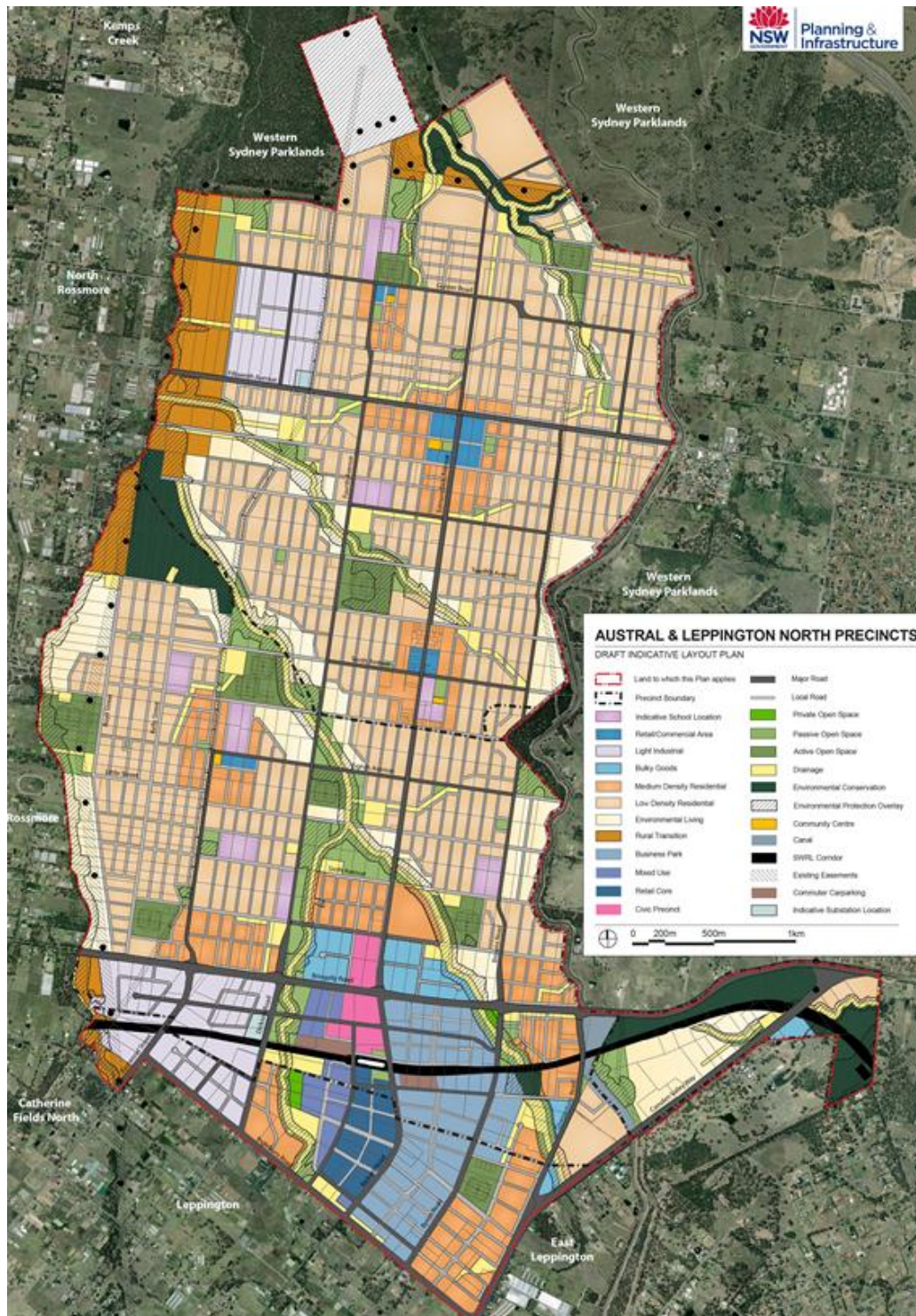
2.3 SW Growth Centre precinct planning

Draft Indicative Layout Plan Austral & Leppington North Precincts

The Austral and Leppington North precincts were released by the Minister for Planning in October 2009. The Austral Precinct is expected to accommodate some 8000 dwellings and up to 22,000 new residents and the Leppington North precinct is expected to accommodate around 12,000 dwellings and up to 30,000 new residents.

The Master Planning for these two precincts was undertaken over 2010-2011 and background technical reports and the draft ILP (Figure 8) were placed on public exhibition in October 2011.

Figure 8. Draft Indicative Layout Plan Austral & Leppington North precincts



Source: DP&I 2011

According to the Draft ILP, the Austral Precinct will perform a predominantly residential role with a town centre, two village centres and a light industrial area. The Leppington North Precinct will provide residential dwellings and perform a key regional commercial centre role for the SWGC and the surrounding region. The Draft ILP indicates a significant retail/commercial core, business park and mixed use, light industrial and bulky goods areas and a civic precinct.

Overall, the Draft ILP identifies approximately 191 hectares of employment lands in the precincts, including 36 hectares of Light Industrial land in Austral; and 74.9 hectares for Business Park/Commercial, 24.8 hectares for Bulky Goods and 55.5 hectares for Light Industrial in Leppington North.

The precincts may face some development issues associated with timing and cost of development, particularly relative to other precincts, such as Oran Park and East Leppington. This is because Austral and Leppington North have relatively smaller lots and, therefore, higher number of owners for a given area.

Retail Floorspace Capacity and Staging Project (Hill PDA 2010)

The report prepared by Hill PDA looked into the planned centres to be located within the Austral, Leppington North and Oran Park precincts.

Hill PDA estimated that the SWGC will require approximately 530,000 square meters of shop front space by 2046 to be distributed in a number of commercial centres of varying sizes (excluding neighbourhood centres). This is more than double the level of space suggested under the SW Structure Plan (between 200,000 square metres and 280,000 square metres). A further 70,000 square metres will be required in neighbourhood centres and 170,000 square metres will be required in 'out-of-centre' or 'edge-of-centre' locations primarily for bulky goods.

With regard to the staging for new commercial centres the Hill PDA report outlines the following:

- By 2016 the first stage of Leppington Major Centre (40,000 square metres gross lettable area (GLA)) should open, comprising two supermarkets and a department store. The other retail centre that should be developed by 2016 is Turner Road. This will be a single large supermarket based centre with associated specialty retail.
- From 2016 to 2021 three new centres should develop, being the first stages of Oran Park, Austral and Edmondson Park. Austral and Edmondson Park should each include a single large supermarket.
- Before 2026 Leppington Major Centre should go through a major expansion to 90,000 square metres by adding a third supermarket and two department stores of which one would be a large national store such as Myer or David Jones. Note that by this stage other retail forms could emerge. A Costco store or a large hypermarket (such as in Apsley North Brisbane) could be introduced which would provide for both supermarket and department store space.
- By 2026 Edmondson Park should expand to include a second supermarket to serve its population of almost 23,000 people.

- By 2026 several new centres should open – predominantly single supermarket based centres. These may be at Oran Park West, East Leppington, Bringelly and Catherine Fields. The timing of these centres should coincide with the release of land and staging of development within their respective trade areas.
- Post 2026 Leppington and Oran Park Major Centre will need to go through other one or two expansions. Some of the single supermarket based centres, such as Catherine Fields, Austral and Bringelly can expand to include a second supermarket and a discount department store and the remaining new centres will need to be staged with population growth.

Employment and Industrial Assessment: Austral and Leppington North (Hill PDA 2010)

The Hill PDA report assessed the employment lands in the SWGC, with a specific focus on the requirements of employment lands within the Austral and Leppington North precincts. The key findings are:

- The SWGC is expected to reach a population of 58,819 residents by 2020/2021; 199,128 persons by 2030/31; and 249,277 by 2035/36.
- The SWGC is expected to support 99,192 resident workers by 2035/36 (including 7,900 resident workers are in Austral, and 8,500 in Leppington North).
- If a 70 percent containment ratio is targeted, 69,434 jobs need to be available within the Growth Centre by 2035/36. This equates to approximately 2,700 to 2,800 jobs per year.

-

Demand and supply comparison showed:

- Demand across the SWGC is expected to be 487 hectares by 2036.
- New supply across the SWGC totals 2200 hectares (1030 hectares if future industrial is excluded).
- Existing supply of vacant, zoned land in Liverpool, Camden and Campbelltown of 491 hectares:
 - 301 hectares vacant, zoned within Liverpool LGA
 - 80 hectares vacant, zoned within Smeaton Grange and 10 hectares Narellan in Camden LGA
 - 100 hectares vacant, zoned in Campbelltown LGA.

Recommendations from the Hill PDA report included:

- Approximately 80 to 85 hectares of industrial zoned land should be planned for Austral and Leppington North. If provided in two clusters, the Austral precinct should be restricted to light industrial (20 to 30 hectares).
- About 50 to 60 hectares could be provided at Leppington North, if access is suitable.
- Heavy/ hazardous/noxious industries should be excluded and confined to Kemps Creek.
- Business Park land should be provided adjacent to Leppington Major Centre.

East Leppington Retail and Employment Assessment – Draft Report (MacroPlan 2012)

According with the MacroPlan report, the SWGC and existing lands nearby will sufficiently cater for future demand for employment lands generated by the expected growth in population within the SWGC over the next 20 to 25 years. Total demand by 2036 within the SWGC is estimated at about 487 hectares (about 20 hectares per year). This compares with current zoned supply of 132 hectares (Oran Park & Turner Road), about 300 hectares of vacant land in existing precincts surrounding the SWGC and the planned supply of about 1000 hectares within the SWGC. In addition, there are two major dedicated future industrial precincts that could support up to 1164 hectares.

A consideration of the precinct's likely trade catchment and estimates of the likely levels of retail expenditure by MacroPlan suggests that the East Leppington Precinct could support up to 22,000 square meters of retail floorspace by 2031, once the precinct approaches capacity.

Precinct planning and analysis by MacroPlan demonstrate that a network of two to three village centres for the East Leppington Precinct may not be the most beneficial outcome to the residents of East Leppington and the broader SWGC. As an alternative to the proposed two to three village centres network MacroPlan proposes a consolidated, subregional town centre, which can be located along Camden Valley Way. This sub-regional town centre could accommodate about 20,000 square meters of retail. This will be of a small size in comparison to Leppington Major Centre and provide retail goods and services to the large and quickly growing population of East Leppington, as well as servicing residents of the northern SWGC in the short to medium term as larger centres such as Leppington and Edmondson Park establish in full. MacroPlan identified the following mix of uses for the proposed East Leppington Town Centre:

- two full-line supermarkets
- one discount department store (DDS)
- 70 to 100 specialty stores including food & restaurant retailing
- Non-retail tenancies, such as banks, administrative offices, medical premises
- Commercial businesses including real estate agents, professional consultants and so on.

The additional retail space (2000 square metres) could be distributed at smaller neighbourhood nodes across the Precinct. These types of retail nodes would focus upon convenience top-up shopping. According to MacroPlan there is no requirement to designate locations for these nodes and they could be accommodated within appropriate residential zoned areas.

The MacroPlan report provides the following justification for the proposed sub-regional town centre:

- Servicing the broader northern section over the medium term as the required critical mass establishes for Leppington Major Centre.
- Support to non-retail employment uses and integrated mixed-use outcomes.
- Possibility to become an early employment provider and to capture some 'leaked' retail expenditure that currently leaves the region.

The MacroPlan report suggests that no further employment lands or business park land is required within the East Leppington Precinct. The East Leppington Precinct will generate about 17 hectares of demand for industrial and business park lands by 2031. This could be sufficiently supported by existing lands within the nearby Ingleburn and Prestons, Turner Road (114 hectares) and planned provision within Leppington North and Austral. The latter two precincts are expected to provide excess supply to that generated within the precincts themselves.

2.4 Relevant studies

Liverpool Retail Centres Hierarchy Review (Leyshon Consulting 2006)

The review contains a typology of centres and places drawn from the Metropolitan Strategy and recognises the need to develop a full range of centres across the LGA. These are: Town Centre, Village Centre, Neighbourhood Centre and Enterprise Corridor. The study identified Liverpool at the top of the retail hierarchy in Liverpool LGA as a regional centre, with two sub-regional discount department stores and five supermarket anchored centres. Neighbourhood centres occupy the fourth and lowest level in the hierarchy.

According to the review Enterprise Corridors “represent the important economic role that a mix of commercial retail and light industrial activities perform along these busy roads including servicing the local community” and are to be encouraged along main roads across Liverpool LGA. Generally Enterprise Corridors aim to complement larger town centres. Approximately 20,000 square metres were proposed for rezoning.

The review also recognised the continuing importance of three specialist centres which provided opportunities for bulky goods, home wares and other specialist retailing: the Liverpool Mega Centre on Orange Grove Road, the Cross Roads Home Maker Centre at Casula and Warwick Farm Home Makers Centre.

The review recommended that Council reinforce these nodes rather than create new nodes in the Liverpool LGA and limit additional retail premises to the above centres.

Liverpool Business Centres & Corridors Strategy (Liverpool City Council 2006)

This strategy responds to the findings of a retail hierarchy study prepared by Leyshon Consulting for the Liverpool LGA and guides the identification of Business Centres and Corridor zones and controls their future function. Council adopted the following strategies:

- Preserve a commercial core area (excluding residential) in Liverpool CBD for future business, office and retail growth

- Limit professional office premises to business zones to capitalise on, and concentrate infrastructure and services
- Establish a retail centre hierarchy and introduce new neighbourhood centre zones to existing smaller centres and new opportune locations
- Expand local and neighbourhood centres, where the opportunity exists, to more than one land owner and where likely to increase potential for retail and business diversity
- Expand start-up business opportunities (and contain residential) in extended enterprise corridor zones leading into main centres and nodes, and
- Establish a regional business development zone (incorporating bulky goods retailing) for south-western Sydney and contain other locations to serving a district role.

Liverpool Development Control Plan 2008 - Part 2.11 - Land Subdivision and Development in Edmondson Park

Edmondson Park has been master planned allowing for the proposed development to have a greater mix of housing types, higher residential densities, vibrant communities, active streets and environmentally responsible development. The vision for Edmondson Park is the creation of places that provide integrated development encouraging the co-existence of commercial, retail and employment with residential uses.

The Indicative Layout Plan for Edmondson Park is shown in Figure 9.

Figure 9. Edmondson Park Indicative Layout Plan



Source: Liverpool City Council, 2008

The Liverpool Development Control Plan 2008 – Part 2.11 establishes a hierarchy of centres within the precinct:

- Edmondson Park Town Centre: The town centre will have a number of transport linkages including a network of Local and Classified roads, bus and rail infrastructure. A bus priority corridor, located on Croatia Avenue, will link the town centre to the Parramatta / Liverpool Transitway and Glenfield. Although two conservation areas to the east and west, and a riparian corridor to the north, constrain the expansion of the centre, these features also provide the necessary environmental amenity that allows higher density residential development.
- Local villages: The villages will provide up to 2,000 square meters of retail/commercial space and are not intended to act competitively with the proposed Edmondson Park Town Centre. Rather they provide a convenient alternative for residents who would otherwise have to invest more time and money to visit a larger centre.

It is envisaged that Edmondson Park will have up to 5 mixed-used villages of two distinct types: Gateway villages and Ridge villages. The following criteria were adopted to determine the location of the villages:

- 750 to 1000 housing lots within a 500 metre catchment of the village.
- The proximity of key destinations such as parks, water bodies and schools.

3 Supply audit

This section highlights the results of auditing of current retail and other employment development in the relevant vicinity of the East Leppington Precinct.

3.1 Existing and planned supply in centres

Table 3 summarises the findings of the audit based on review of published data, field surveys undertaken by the SGS team and verifications with Campbelltown, Liverpool and Camden Councils.

Table 3. Audit of retail and employment supply and centre hierarchy in the study area

Centre	Classification	Status	Description
Liverpool	Regional City	Existing	<ul style="list-style-type: none"> The regional centre for the SW subregion. Westfield Liverpool (83,315 sqm), including: Myer 18,766 sqm; Target 8,291sqm; Big W 8,250 sqm; Coles 3,876 sqm; Woolworths 3,659 sqm. Liverpool Plaza (6,373 sqm), including: Franklins 1,300 sqm. Located 14km from the East Leppington Precinct.
Leppington	Major Centre	Planned: <ul style="list-style-type: none"> 1st stage: by 2016 – 40,000 sqm GLA (2 supermarkets, a department store) 2nd stage: before 2026 – major expansion to 90,000 sqm (3rd supermarket, 2 department stores) 3rd stage: post 2026 further expansion - up to 170,000sqm of GLA retail (Hill PDA assessment) 	<ul style="list-style-type: none"> 60,000 - 80,000 sqm of retail floor space: <ul style="list-style-type: none"> Planned 2 supermarkets, 2 discount department stores and a full line department store. Planned as the largest centre within the SWGC. Capacity for 13,000 jobs. Centred on Leppington Railway Station (under construction) and provides a mix of retail, employment, entertainment, educational and civic uses to serve the SWGC. A business park precinct is proposed in the Draft ILP. 2 mixed use areas for potential expansion of retail, commercial or government services uses beyond the core areas identified in the Draft ILP.
Edmondson Park	Town Centre	Planned: <ul style="list-style-type: none"> 1st stage: from 2016 to 2021 - single large supermarket. 2nd stage: by 2026 - 	<ul style="list-style-type: none"> Up to 20,000 sqm of retail floor space: <ul style="list-style-type: none"> Planned 2 supermarkets and a discount department store. Planned mixed use retail development. Enterprise Corridor area zoned under the

Centre	Classification	Status	Description
		23,000 population (2 nd supermarket)	<p>Liverpool LEP 2008.</p> <ul style="list-style-type: none"> The town centre for the new suburb is built around a future bus and rail interchange (proposed train station for the future south western line). Edmondson Park Railway Station is planned to be operational by 2016.
Carnes Hill	Town Centre	Existing	<ul style="list-style-type: none"> 17,442 sqm GLA retail: <ul style="list-style-type: none"> Big W 5,635 sqm, Woolworths 4,494 sqm, Dan Murphy's 1,414 sqm, Aldi, service station, fast food restaurants, takeaways, butcher, bakery, real estate agents, newsagency, hairdresser, banks, pharmacy, medical centre, post office.
Casula Mall	Town Centre	Existing	<ul style="list-style-type: none"> 19,041 sqm GLA retail: <ul style="list-style-type: none"> Kmart 7,815 sqm, Coles 5,307 sqm, Franklins 1,905 sqm.
Eagle Vale Marketplace	Town Centre ²	Existing	<ul style="list-style-type: none"> 6,858 sqm GLA retail: <ul style="list-style-type: none"> Woolworths 4,306 sqm, small shops.
Ingleburn Fair	Town Centre ³	Existing	<ul style="list-style-type: none"> 7,985 sqm GLA retail: <ul style="list-style-type: none"> Coles 2,350 sqm, small shops.
Austral ⁴	Town Centre	Existing/ Planned: <ul style="list-style-type: none"> 1st stage: from 2016 to 2021 (single large supermarket) 2nd stage; post 2026 - can expand to a 2nd supermarket and a department store. 	<ul style="list-style-type: none"> Up to 30,000 sqm of retail floor space: <ul style="list-style-type: none"> Existing IGA, newsagency, pharmacy, medical centre, butcher, bottle shop, fitness centre, takeaways, tax agent. Planned 2 supermarkets, a discount department store and associated small retail and commercial businesses.
Catherine Fields North	Town Centre	Planned: <ul style="list-style-type: none"> Post 2026. 	<ul style="list-style-type: none"> 15,000 sqm of retail floor space: <ul style="list-style-type: none"> Planned 2 supermarkets.
Catherine Fields	Town Centre	Planned: <ul style="list-style-type: none"> Post 2021. 	<ul style="list-style-type: none"> 15,000 sqm of retail floor space: <ul style="list-style-type: none"> Planned 2 supermarkets.
Kearns	Neighbourhood Centre ⁵	Existing	<ul style="list-style-type: none"> 1,500 sqm GLA retail: <ul style="list-style-type: none"> IGA 1,000 sqm, butcher, bakery, newsagency, restaurant, takeaway,

² District Comprehensive Centre in the Campbelltown LEP.

³ District Comprehensive Centre in the Campbelltown LEP 2002.

⁴ Corner of Fifteenth Avenue and Edmondson Avenue.

⁵ Local Comprehensive Centre in the Campbelltown LEP.

Centre	Classification	Status	Description
			restaurant, hairdresser.
Hoxton Park Shopping Centre	Neighbourhood Centre	Existing	<ul style="list-style-type: none"> 14,900 sqm site area: <ul style="list-style-type: none"> Supermarket (deli, fruit & veg), Bottlemart, newsagency, real estate agent, post office, auto spare parts, butcher, bakery, barber, restaurant, takeaways, pharmacy, doctor and community health centre.
Prestons Shopping Centre	Neighbourhood Centre	Existing	<ul style="list-style-type: none"> 4,400 sqm site area: <ul style="list-style-type: none"> IGA, medical centre, pharmacy, bottle shop, residential building company, hairdresser, butcher, takeaways.
Gurner Avenue	Neighbourhood Centre	Planned: <ul style="list-style-type: none"> Post 2026? 	<ul style="list-style-type: none"> Planned 5,000-10,000 sqm of retail floor space capacity.
Austral Shopping Centre ⁶	Neighbourhood Centre	Existing	<ul style="list-style-type: none"> Planned 5,000-10,000 sqm of retail floor space capacity: <ul style="list-style-type: none"> Existing IGA, bakery, butcher, veterinary, pharmacy, newsagency, hairdresser, post office, florist, bottle shop, community hall, Outer Liverpool Community Services.
Eighth Avenue	Neighbourhood Centre	Planned: <ul style="list-style-type: none"> Post 2026. 	<ul style="list-style-type: none"> Planned 5,000-10,000 sqm of retail floor space capacity.
1370-1380 Camden Valley Way	Neighbourhood Centre	Proposed	<ul style="list-style-type: none"> 623 sqm of retail floor space: <ul style="list-style-type: none"> Service station, convenience store (299 sqm) and fast food restaurant (324 sqm).
Camden Valley Way & Rynan Avenue	Neighbourhood Centre	Planned: <ul style="list-style-type: none"> By 2026. 	<ul style="list-style-type: none"> Up to 1,000sqm of retail/commercial gross floor space: <ul style="list-style-type: none"> local shops, cafes and other small businesses at ground level, with small scale offices and shop-top housing above.
Camden Valley Way & Croatia Avenue	Neighbourhood Centre	Planned: <ul style="list-style-type: none"> By 2026. 	<ul style="list-style-type: none"> Up to 1,000sqm of retail/commercial gross floor space: <ul style="list-style-type: none"> local shops, cafes and other small businesses at ground level, with small scale offices and shop-top housing above.
Camden Valley Way & Ash Road	Neighbourhood Centre	Planned: <ul style="list-style-type: none"> By 2026. 	<ul style="list-style-type: none"> Up to 1,000sqm of retail/commercial gross floor space: <ul style="list-style-type: none"> local shops, cafes and other small businesses at ground level, with small scale offices and shop-top housing above.
Bardia Avenue	Neighbourhood Centre	Planned: <ul style="list-style-type: none"> By 2026. 	<ul style="list-style-type: none"> Up to 1,000sqm of retail/commercial gross floor space:

⁶ Corner of Tenth Avenue and Edmondson Avenue.

Centre	Classification	Status	Description
			<ul style="list-style-type: none"> local shops, cafes and other small businesses at ground level, with small scale offices and shop-top housing above. an attractive neighbourhood park, a primary school, a 60 place childcare centre and a multipurpose community centre.
East of Croatia Avenue	Neighbourhood Centre	Planned: <ul style="list-style-type: none"> By 2026. 	<ul style="list-style-type: none"> Up to 1,000sqm of retail/commercial gross floor space: <ul style="list-style-type: none"> local shops, cafes and other small businesses at ground level, with small scale offices and shop-top housing above. an attractive neighbourhood park, a primary school, 60 place childcare centre and a multipurpose community centre.
Leppington Shopping Centre	Neighbourhood Centre	Existing	<ul style="list-style-type: none"> 800 sqm GLA retail: <ul style="list-style-type: none"> a 200 sqm general store, hairdresser, pharmacy, butcher, takeaway, newsagency, bottle shop, post office.
Emerald Hills ⁷	Neighbourhood Centre	Proposed	<ul style="list-style-type: none"> Maximum 10,000 sqm retail gross floor area in the Neighbourhood Centre, focused in a local centre to serve residents. The planning proposal with Camden Council for 151ha: 78ha of residential land (approx 1,200 houses), a neighbourhood centre and public recreation areas.
Raby Shopping Centre	Neighbourhood Centre	Existing	<ul style="list-style-type: none"> 2,500 sqm GLA retail: <ul style="list-style-type: none"> IGA 1,000 sqm, video store, newsagency, takeaways, butchery, hairdresser, bakery, pub.

Source: Summarised from *Section 2: Strategies, policies and plans review and site visits*.

Liverpool Regional City

The Regional City of Liverpool is the regional centre for the SW subregion designated within the Metropolitan Strategy. Liverpool CBD accommodates over 110,000 square metres of retail floorspace, including Westfield Liverpool (83,315 square metres GLA retail). Major tenants include Myer, Target, Big W, Coles, Woolworths, Toys R Us, Best & Less and 330 specialty stores. Liverpool Plaza has 6373 square metres of retail floor space. Its major tenant is Franklins and there are 44 specialty stores.

⁷ Emerald Hills is 151 hectares between Raby Road, Camden Valley Way and St Andrews Road at Catherine Field and adjoins the South West Growth Centre.

Leppington Major Centre

Leppington Centre is identified as a Major Centre in the *Metropolitan Plan for Sydney 2036, 2005 Metropolitan Strategy and South West Growth Centre Structure Plan 2012* in recognition of being the SWGC's key centre. Leppington major Centre can be compared with Rouse Hill, the centre of not only the NW Growth Centre but the whole NW sector.

According to the *South West Growth Centre Structure Plan 2012* Leppington Major Town Centre will be the largest centre in the SWGC (74,000 people and 27,000 dwellings), with 60,000 to 80,000 square metres of retail floor space (includes two supermarkets and one to two department stores). Leppington Major Centre will provide employment, shopping, essential services and entertainment to the SWGC population's growing needs.

The *Growth Centres Employment and Retail Strategy* (SGS 2009) emphasised the role of the Leppington Major Centre to drive local employment growth. The Strategy recognised that Leppington should be a key focus for employment growth and economic development in the South West and proposed developing Leppington as a hybrid Town Centre/ Business Park.

Town Centres

There are also a number of existing and planned town centres in Campbelltown, Liverpool and Camden LGAs within the study area boundaries. These are:

- Edmondson Park - planned
- Carnes Hill - existing
- Casula Mall - existing
- Eagle Vale Marketplace - existing
- Ingleburn Fair - existing
- Austral – existing/ planned extension
- Catherine Fields North - planned
- Catherine Fields - planned.

Neighbourhood Centres

Table 3 shows multiple existing and planned neighbourhood centres located in the study area.

3.2 Planned supply in SWGC precincts

Table 4 provides a summary of assessment of the planned employment and retail/commercial supply in the SWGC in the vicinity of the East Leppington Precinct.

Table 4. Retail and employment supply in the SWGC study area

Precinct	Dwellings/ population projections	Centres	Supply	Development staging ⁸
Leppington North	12,000 dwellings ⁹ / 33,000 residents ¹⁰	<ul style="list-style-type: none"> 1 Major Town Centre 1 Neighbourhood Centre 	<ul style="list-style-type: none"> Retail: <ul style="list-style-type: none"> 20ha (zoned as retail core) capable to accommodate up to 120,000 sqm GLA , includes the already existing Leppington Shopping Village 5,000-10,000 sqm in a neighbourhood centre (Draft Austral & Leppington North ILP). Employment land: <ul style="list-style-type: none"> 74.9ha Business Park/Commercial (could deliver up to 560,000 sqm); 24.8ha Bulky Goods; 55.5ha Light Industrial (Draft Austral & Leppington North ILP). Mixed use: 19ha (Draft Austral & Leppington North ILP). 	Stage 1 (+2026) Full Town Centre (+2036)
Leppington	8,000 dwellings/ 22,000 residents ¹¹	<ul style="list-style-type: none"> 10-12 Neighbourhood Centres 	<ul style="list-style-type: none"> Retail: <ul style="list-style-type: none"> Assumed as per Draft Austral & Leppington North ILP: 5,000-10,000 sqm for each neighbourhood centre. 	Convenience nodes, minimal impact
Edmondson Park	7,500-8,500 dwellings/ 25,000 residents	<ul style="list-style-type: none"> 1 Town Centre 5 Neighbourhood Centres (mixed-use local villages) 	<ul style="list-style-type: none"> Retail: <ul style="list-style-type: none"> 25,000 sqm of retail floor space. Up to 1,000 sqm for each Neighbourhood Centre (3 Gateway villages and 2 Ridge villages). Employment land: <ul style="list-style-type: none"> Enterprise Corridor area zoned under the Liverpool LEP 2008. 	Stage 1 (+2021) Full Town Centre (+2026)
Austral	8,000	<ul style="list-style-type: none"> 1 Village centre 	<ul style="list-style-type: none"> Retail: 	Convenience

⁸ As indicated in MacroPlan (2012) *Retail and Employment Assessment: East Leppington – Draft Report*. Prepared for NSW Department of Planning and Infrastructure.

⁹ The dwelling yield of 16,234 dwellings in the Draft Austral & Leppington North Precincts ILP is less than the target for both precincts of 20,000 dwellings.

¹⁰ The population yield of 51,130 people in the Draft Austral & Leppington North Precincts ILP is lower than the SWGC Structure Plan target for the Austral and Leppington North precincts combined.

¹¹ As per proposed boundary: bounded by Camden Valley Way on the east, Ingleburn Road to Eastwood Road in the north, and south east along Kemps Creek.

Precinct	Dwellings/ population projections	Centres	Supply	Development staging ⁸
	dwellings ¹² / 22,000 residents ¹³	<ul style="list-style-type: none"> 2 Neighbourhood Centres 	<ul style="list-style-type: none"> 30,000 sqm in the Village Centre. 5,000-10,000 sqm in each Neighbourhood Centre (Draft Austral & Leppington North ILP). Employment land: <ul style="list-style-type: none"> 36ha Light Industrial (Draft Austral & Leppington North ILP). 	nodes, minimal impact
Catherine Fields North	9,500 dwellings/ 26,000 residents	<ul style="list-style-type: none"> 1 Village centre 8 Neighbourhood Centres 	<ul style="list-style-type: none"> Retail: <ul style="list-style-type: none"> 15,000 - 25,000 sqm (SWGC Structure Plan). 	Town Centre (+2026)
Catherine Fields	8,000 dwellings/ 22,000 residents	<ul style="list-style-type: none"> 1 Village centre 6-7 Neighbourhood Centres 	<ul style="list-style-type: none"> Retail: <ul style="list-style-type: none"> 15,000 - 25,000 sqm (SWGC Structure Plan) Employment land: <ul style="list-style-type: none"> industrial area mixed use employment corridor. 	Town Centre (+2021)

Source: Diverse as specified in the table.

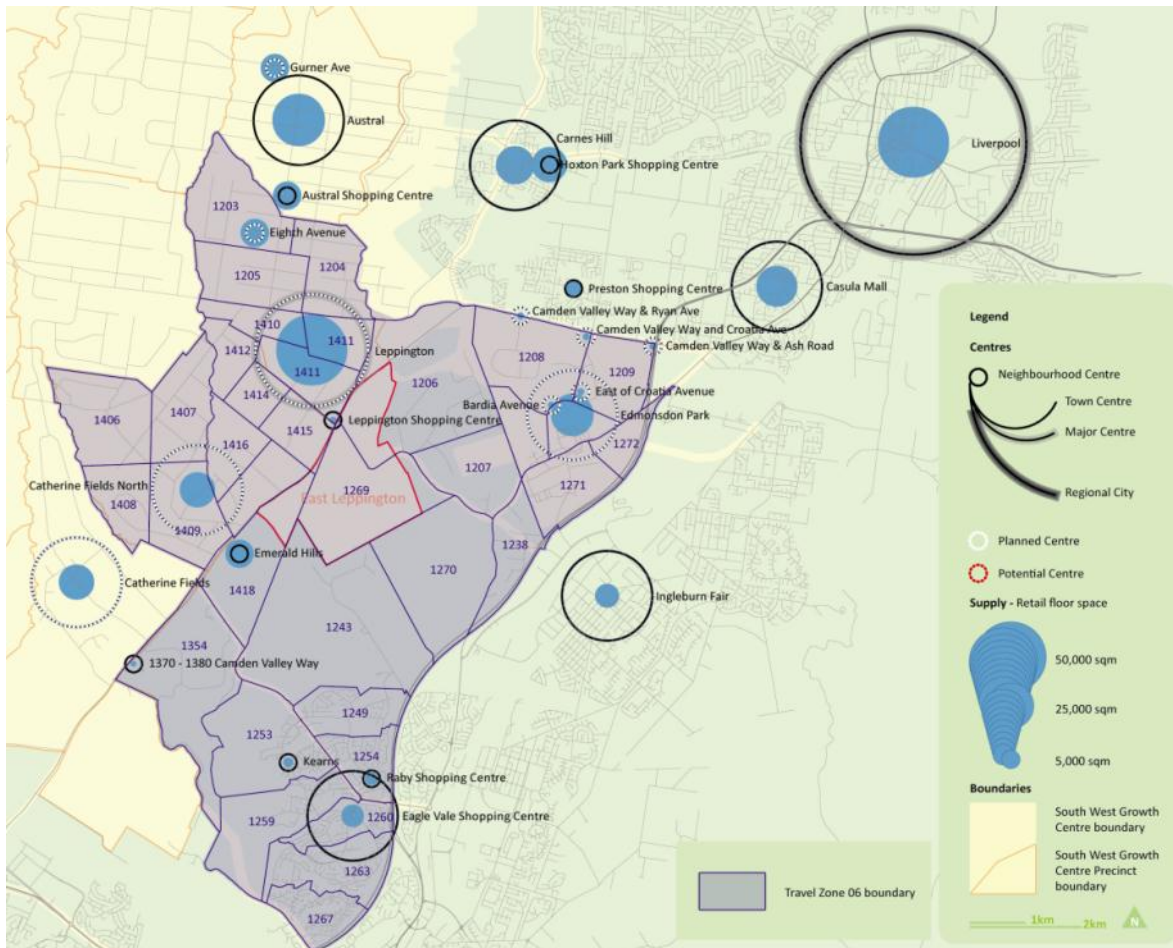
¹² The dwelling yield of 16,234 dwellings in the Draft Austral & Leppington North Precincts ILP is less than the target for both precincts of 20,000 dwellings.

¹³ The Draft ILP population yield of 51,130 people is lower than the SWGC Structure Plan target for the Austral and Leppington North precincts combined.

3.3 Centres hierarchy

The centres hierarchy for the area surrounding the East Leppington Precinct has been outlined in a centres hierarchy for the study area, below.

Figure 10. Centres hierarchy in the study area



Source: SGS, 2012

4 East Leppington development potential

This section identifies the commercial, retail and other employment development potential within the East Leppington Precinct as reflected in the *South West Growth Centre Structure Plan – Edition 3 (2012)*, *Draft East Leppington Indicative Layout Plan – Version 2 (March 2012)* and *East Leppington Retail and Employment Assessment – Draft Report (MacroPlan 2012)*.

The three options for distribution of centres within the East Leppington Precinct as proposed in the SWGC Structure Plan, Draft ILP and Draft Employment Assessment by MacroPlan are summarised in Table 5.

Table 5. East Leppington centre distribution scenarios,

Scenario	Source	Criteria to determine centres' location
2-3 Neighbourhood Centres	South West Growth Centre Structure Plan (Edition 3) 2012	<ul style="list-style-type: none"> A 400 meters (5 min walk) catchment of the Neighbourhood Centre. Represent a local shop (or group of shops) or from another community focus such as a community centre with a bus stop. Mixed use main street retail centres that include housing, community facilities, shops for daily convenience and so on.
1 Village centre 1 Neighbourhood Centre	Draft East Leppington Indicative Layout Plan (Version 2) March 2012	<ul style="list-style-type: none"> A 10 min walk catchment of the Neighbourhood Centre. A 'gateway' style Neighbourhood Centre - Camden Valley Way intersection. The Village centre is co-located with key destination attractions, such as parks, water bodies and schools. Identified additional location for neighbourhood services in a medium density residential area.
1 Town Centre and Neighbourhood Centres ¹⁴	East Leppington Retail and Employment Assessment - Draft Report (MacroPlan 2012)	<ul style="list-style-type: none"> The Town Centre to be located along Camden Valley Way. The mix of uses for the proposed East Leppington Town Centre: <ul style="list-style-type: none"> 2 full-line supermarkets 1 discount department store (DDS) 70 to 100 specialty stores including food & restaurant retailing non-retail tenancies, such as banks, administrative offices, medical premises commercial businesses, including real estate agents, professional consultants and so on. Neighbourhood centres across the Precinct will provide 2,000 sqm additional retail space, convenience top-up shopping focus.

Source: As specified in the table.

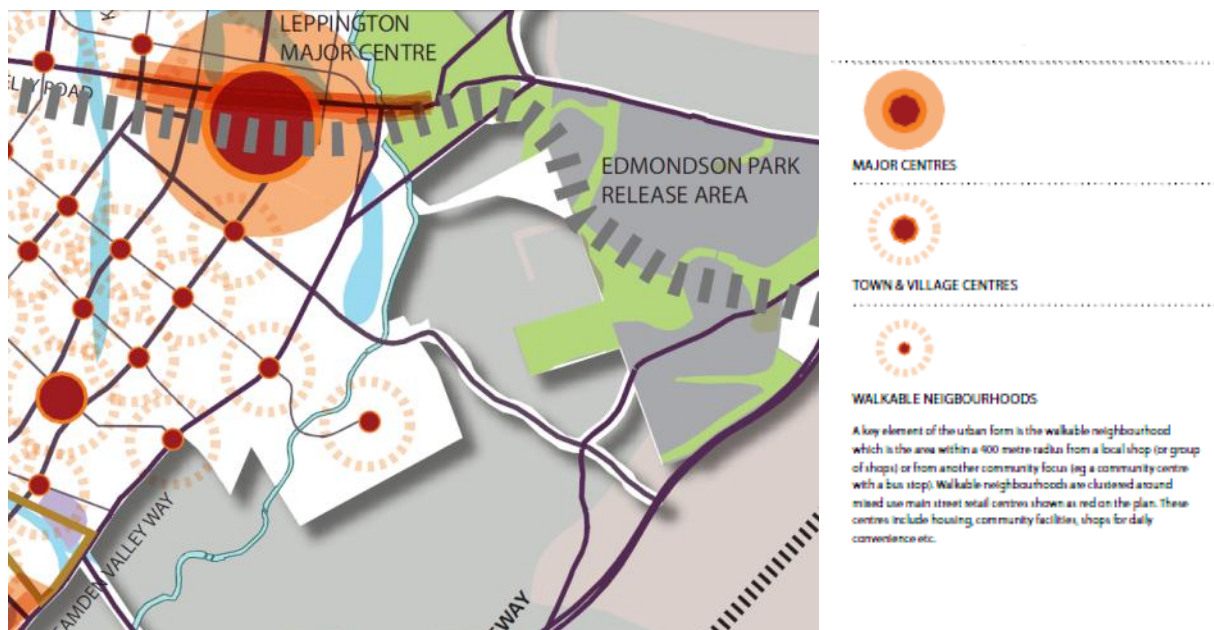
¹⁴ MacroPlan did not provide locations for the Neighbourhood Centres.

4.1 Planning framework

The East Leppington Precinct was proposed as one of the SWGC precincts in the *South West Growth Centre Structure Plan (Edition 3) 2012* with the 3000 dwelling and 8000 people housing and population targets. According with the Structure Plan, the East Leppington Precinct is to be developed as a Walkable Neighbourhood, which is to provide community facilities, basic retail and public transport facilities. There are no industrial or significant retail provisions to be made for the area.

The Structure Plan proposed two to three Neighbourhood Centres within the East Leppington Precinct as shown on the South West Growth Centre Structure Plan (see Figure 11).

Figure 11. East Leppington Precinct - SWGC Structure Plan (Edition 3)



Source: DP&I 2012

The *Growth Centres Employment and Retail Strategy* (SGS 2009) emphasised the importance of the East Leppington Precinct development in supporting the growth of the Leppington Major Centre, addressing the projected employment gap and meeting benchmark ratios between local jobs and population. The Strategy recommends larger catchments of 800 metres to allow for a greater variety of local shopping and services, with a minimum density of housing across the catchment of 15 dwellings per hectare.

4.2 Indicative layout plan

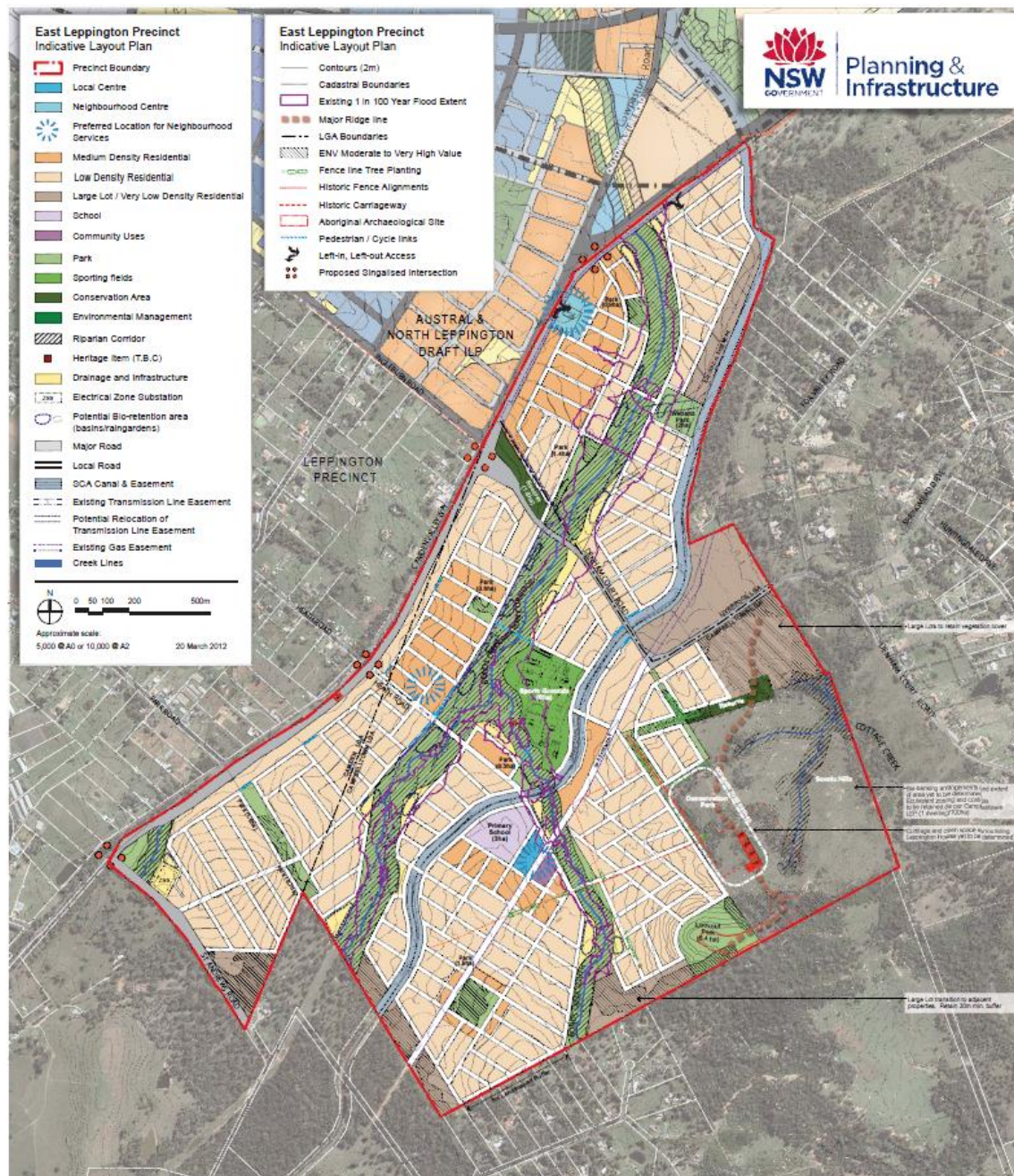
The Draft ILP (Version 2) for East Leppington was prepared in March 2012 and supports one local (village) centre and one neighbourhood centre scenario for distribution of centres within the Precinct (see Figure 12).

The Local and Neighbourhood Centres are planned within medium density residential areas and will provide a convenient alternative for residents who would otherwise have to visit a larger centre outside the Precinct.

The Local (village) centre is located along Heath Road and will be co-located with a primary school, other community uses and a local park. The Neighbourhood Centre adjacent to Camden Valley Way is a 'gateway' style centre in East Leppington and will serve residents of the Precinct as well as residents from the North Leppington Precinct. The Draft ILP also shows an additional location for neighbourhood services in a medium density residential area along Camden Valley Way.

The Draft ILU incorporates higher yield and population capacity that previously identified under the SW Structure Plan. This is identified in the retail demand section of this report.

Figure 12. Draft East Leppington Indicative Layout Plan (Version 2)



Source: DP&I, March 2012

4.3 MacroPlan study

The draft report by MacroPlan *East Leppington Retail and Employment Assessment* (2012) proposes the centre hierarchy for East Leppington consisting of a 'consolidated sub-regional' town centre, which can be located along Camden Valley Way. This sub-regional town centre could support up to 22,000 square meters of retail floorspace by 2031, which is a smaller size centre in comparison to Leppington Major Centre (up to 200,000 square meters or more).

The consolidated centre would provide retail goods and services to the population of East Leppington and of the northern SWGC in the short to medium term prior the full establishment of larger centres, such as Leppington and Edmondson Park.

The draft MacroPlan report also suggests that no further employment lands or business park land is required within the East Leppington Precinct. Opportunities for mixed use employment corridors (a variety of commercial and industrial uses) near the East Leppington Precinct are Bringelly Road near the Leppington Major Town Centre and Camden Valley Way near Catherine Fields and Badgally Road.

5 Demand analysis

The scope of work requires identification of detailed retail/commercial land use requirements for the neighbourhood centres and/or town centre. In this chapter, a retail demand analysis is undertaken to assess the available retail expenditures of future residents at East Leppington Precinct over time. A supportable floorspace by retail commodity/store type at neighbourhood centres is then estimated by apportioning part of this demand to such centres. Note that a separate assessment of the demand for a town centre within the Precinct, in light of MacroPlan's proposal, is discussed in the following chapter.

This chapter also includes an assessment of both population-driven and strategic employment which is used to determine other employment land use requirements in the Precinct.

5.1 Population projection

The latest Indicative Land Use Plan (ILP) incorporates a proposed capacity of 4519 dwellings for the full development of the Precinct, which is anticipated by 2031. Assuming three persons per household¹⁵, this implies that additional 13,557 residents are envisaged within the Precinct by 2031.

It was advised by DP&I that 300 dwellings per annum would be constructed in the period from 2014 to 2031. Table 6 shows the five-yearly projected population for the East Leppington Precinct, based on the development staging and the assumed household size.

Table 6. Dwelling and population projections for East Leppington, cumulative

Type of projection	2016	2021	2026	2031
Dwellings	900	2400	3900	4,519
Persons	2,700	7,200	11,700	13,557

Source: SGS calculation based on the advices from DP&I (2012)

5.2 Retail demand analysis

Projected resident retail expenditure

The retail expenditure of anticipated resident population available within the Precinct has been derived from a per-capita basis from the national average, adjusted for the income profile of households likely to live in the Precinct. For the purposes of this assessment, it has been assumed

¹⁵ This is based on the average household size of South Western Sydney (Statistical Region Sector) obtained from the ABS Census (2006)

that the incoming residents will have the same income profile as residents of recent greenfield development areas in the south-west, including Edmondson Park, Harrington Park and Oran Park combined (this is referred to as the synthetic income profile).

Table 7 compares the synthetic income profile of future households at East Leppington with the national profile (weekly household income). It shows that the synthetic East Leppington income distribution has a much greater proportion of households in the 'upper' income band and a smaller proportion in the 'lower' income band than the national average. Higher average incomes imply a higher than average per capita retail expenditure by the likely future residents.

Table 7. Proportion of households in each income bracket, 2006

	Low income range	Second income range	Third income range	Fourth income range	Upper income range	Total
	\$0 - \$499	\$500 - \$799	\$800 - \$1,199	\$1,200-\$1,999	> \$2000	
Australia	22%	19%	20%	21%	18%	100%
East Leppington (synthetic)	7%	11%	17%	32%	34%	100%

Source: ABS Census data, 2006

Next, we apply East Leppington's synthetic income distribution to the 2003/2004 National Household Expenditure Survey data (by income bracket and retail type) to derive expenditure at the local level. The average expenditure at the national level is then compared to the average of the derived expenditure at the local level. This forms the basis for the variation in expenditure (by retail type) between Australia and the Precinct.

Using time series data in the ABS Retail Turnover quarterly release, per-capita national retail expenditure by retail type¹⁶ has been extrapolated to derive projected five-yearly national forecasts from 2011 to 2031. The average variation in expenditure (by retail type) between Australia and the Precinct is then applied to the national retail forecast to derive precinct level projections.

As an example of the outcome of this process, the table below shows the per-capita expenditure comparison for 2016. The totals column in Table 8 shows that, on average, each future resident of the Precinct is estimated to spend \$14,867 on retail goods and services in 2016. This is \$2600 more than the average spending of residents nationally. For this assessment, it should be noted that all values are in 2011 dollars.

¹⁶ The retail categories are defined in Appendix A.

Table 8. Per capita retail expenditure 2016, in 2011 dollars

	Super markets	Department Stores	Other Food	Clothing	Household Goods	Other Retail	Hospitality and Services	Total
Australia	\$3,928	\$890	\$1,015	\$821	\$2,186	\$1,909	\$1,465	\$12,214
East Leppington (synthetic)	\$4,565	\$1,109	\$1,179	\$1,061	\$2,656	\$2,410	\$1,886	\$14,867

Source: SGS, 2012 based on ABS Retail Trade time series

By 2016, it is projected that there will be 2700 new residents in East Leppington. After applying a per-capita retail expenditure of \$14,867 per annum, total available expenditure within the Precinct is estimated to be around \$40 million by 2016.

The following table shows the projected retail expenditure by type¹⁷ of residents at East Leppington from 2011 to 2031. By 2031, the total resident retail expenditure at the Precinct amounts to approximately \$235 million.

Table 9. Projected total retail expenditure in East Leppington, in 2011 dollars (millions)

	Super markets	Department Stores	Other Food	Clothing	Household Goods	Other Retail	Hospitality and Services	Total
2016	\$12	\$3	\$3	\$3	\$7	\$7	\$5	\$40
2021	\$36	\$8	\$9	\$7	\$20	\$20	\$14	\$113
2026	\$61	\$12	\$15	\$12	\$34	\$34	\$24	\$193
2031	\$75	\$14	\$18	\$15	\$42	\$43	\$29	\$235

Source: SGS, 2012

Floorspace demand for neighbourhood centres

SGS has considered scenarios where two or three neighbourhood centres (less than 15,000 square metres of retail space) are located within the Precinct. Each of these centres is likely to have at least one supermarket and a range of speciality shops.

Based on SGS research and results from previous expenditure surveys, it is estimated that 22 percent of total retail expenditure is likely to be retained within such centres. For instance, \$7.6 million of the total resident retail expenditure is retained in 2016.

The retained expenditure has been broken down by retail type based on typical store/commodity composition of a supermarket-based neighbourhood centre. Following is the estimated split of the retail turnover at neighbourhood centres.

- Supermarket - 66 percent

¹⁷ Note that since the national forecasts are by retail type, we apply the average variation in expenditure by type to derive local forecasts.

- Other food speciality shops (for example, butchers and bakeries)- 11 percent
- Household Goods (for example, manchester, home wares and electronic equipment) - 2 percent
- Other Retail (for example, gardening supplies, health and beauty products, pet care products) – 6 percent
- Hospitality and Services (for example, cafes and restaurants) - 15 percent.

The following table shows the estimated Retail Turnover Density (RTD) for each retail type at the neighbourhood centre. These RTDs are derived from the average per square metre turnover estimates for a single supermarket based shopping centre from the *Urbis Retail Average*, with a 20 percent discount to reflect lower rents for street side shops compared to shops within an enclosed shopping centre.

Table 10. Retail Turnover Densities for neighbourhood centres

	Supermarket	Other food	Clothing	Household goods	Other Retail	Hospitality and Services
RTD (average turnover per sqm)	\$6,488	\$7,630	\$3,470	\$3,145	\$3,647	\$6,229

Source: SGS (2012) & Urbis (2009)

These RTDs are used to convert the projected total retail expenditure retained by neighbourhood centres, into floorspace requirement for the five-yearly retail expenditure in the centre. The table below shows floorspace demand over time using the retention rate of 22 percent for neighbourhood centres, along with the composition and the RTD estimates outlined above.

Table 11. Floorspace demand (sqm) for neighbourhood centre, base case

	2016	2021	2026	2026-2031
Supermarket	898	2,529	4,314	5,250
Other food	127	358	611	744
Household	56	158	270	328
Other Retail	145	407	695	845
Hospitality and Services	213	599	1,021	1,243
Total floorspace	1,439	4,051	6,911	8,410

Source: SGS, 2012

This shows that over the next 20 years, there is demand for additional 8410 square metres of retail floor space. Generally, neighbourhood centres would be a variety of sizes servicing a local catchment, and would incorporate up to 8000 square metres of retail floor space. Common compositions of neighbourhood centres could include a supermarket and specialty shops with a floor space up to 4000 square metres.

The demand projections suggest that demand for a neighbourhood centre retail floor space from within the East Leppington Precinct would be for 8410 square metres at 2031.

Sensitivity of market share (retention rate)

In order to ascertain the sensitivity of the projections to the retention rate, we test the impact of alternative rates. The base case was modelled assuming that 22 percent of total retail expenditure in the Precinct would be captured by the neighbourhood centre. In this section we model floorspace demand using a higher retention rate of 25 percent and lower retention rate of 19 percent. The results are report below.

Table 12. Floor space demand (sqm) for neighbourhood centre: high scenario

	2016	2021	2026	2031
Supermarket	1,021	2,874	4,902	5,966
Other food	145	407	695	845
Household	64	180	306	373
Other Retail	164	463	789	961
Hospitality and Services	242	680	1,161	1,412
Total floorspace	1,635	4,604	7,854	9,557

Source: SGS, 2012

Table 13. Floor space demand (sqm) for neighbourhood centre: low scenario

	2016	2021	2026	2031
Supermarket	776	2,184	3,726	4,534
Other food	110	310	528	643
Household	49	137	233	283
Other Retail	125	352	600	730
Hospitality and Services	184	517	882	1,073
Total floorspace	1,243	3,499	5,969	7,263

Source: SGS, 2012

The high scenario results in demand for approximately 9500 square metres, while the low scenario suggests 7200 square metres of floor space. In broad terms, the sensitivity tests suggest that floor space demand for neighbourhood centre would be within that range.

5.3 Population driven employment demand

The employment prospects of any land area are driven by both local and broader regional pressures. Local pressures for employment uses are driven by the needs of the local resident population, and land uses responding to this pressure are predominantly local service and retail based. From a broader regional or sub-regional perspective many land areas have a more strategic significance. An area's position with respect to infrastructure, magnet institutions and major population centres will determine its attractiveness for more 'footloose' employers. This is broadly considered in terms of the impact of Camden Valley Way upgrade and discussed in section 5.4.

Population-driven employment is driven primarily by proximity to population. SGS has determined the nature of population related employment by conducting a regression analysis on all Sydney SD Travel Zones for population growth against employment growth by industry category (four digit ANZSIC). This has allowed SGS to determine; (i) the types of jobs that are strongly related to population; and (ii) the number of jobs in these categories for a given population number.

Total employment due to residents

A set of ratios to show the volume of population driven employment (PDE) generated by each new resident has been developed through regression analysis of employment growth by ANZSIC category against population growth for every Travel Zone in Sydney SD.

Dwelling targets for the East Leppington Precinct identify around 4519 dwellings and around 13,557 residents (based on 2.9 people per dwelling) by 2031. SGS has used this future population as an input into the PDE calculation for the Precinct. Table 14 shows the maximum PDE expected in East Leppington based on forecast population of 13,557 residents. The timing of employment generation is also based on the population projection.

Table 14. Population driven jobs due to East Leppington residents

BLC	Jobs per resident	2016	2021	2026	2031
Short-term Accommodation	0.0001	0	1	1	1
Business / Office Parks	0.0005	1	4	6	7
Freight and Logistics	0.0025	7	18	29	34
Local light industrial and urban support	0.0115	31	83	135	156
Manufacturing - Heavy	0	-	-	-	-
Manufacturing - Light	0.0088	24	63	103	119
Office	0.0042	11	30	49	57
Retail - Big Box	0.0178	48	128	208	241
Bulky Goods Retail	0.0072	19	52	84	98
Retail - Main Street	0.0139	38	100	163	188
Tertiary education and health services	0.009	24	65	105	122
Urban Services	0.0053	14	38	62	72

Prim & sec. education and comm. services	0.0107	29	77	125	145
Total employment	0.0914	247	658	1,069	1,239

Source: SGS, 2012

Population driven jobs in-precinct

In practice, we would expect some of these population driven jobs to be generated outside East Leppington. That is, even though 1239 jobs are due to the population growth in the Precinct, not all of those jobs would be located within East Leppington. Some would gravitate towards larger commercial centres and industrial areas. For example, business park and office jobs may be accommodated at the planned Leppington Major Centre. For this reason, the following adjustments are made to derive PDE located within the Precinct.

- All retail related employment is excluded since it is already accounted for in the retail demand assessment.
- Only 20 percent of projected employment in Local light industrial and urban support will be located in the Precinct. These jobs are likely to be servicing local population, such as car repairs.
- Half of tertiary education and health services employment will be within the Precinct. These jobs can largely be located in medical centres and other local health services.
- All primary and secondary education and community service related employment will be located within the Precinct. This may include a school, social and community services and wholesale trade.

It is suggested that employment in other BLCs is likely to be located outside East Leppington. Taking this into account, Table 15 shows the total PDE projection within the Precinct.

Table 15. Population driven employment located in East Leppington

BLC	2016	2021	2026	2031
Local light industrial and urban support	6	17	27	31
Health services	12	32	53	61
Prim & sec. education and comm. services	29	77	125	145
Total PDE employment in East Leppington	47	126	205	237

Source: SGS, 2012

The analysis shows that of the 1239 jobs generated by the incoming East Leppington population, only 237 jobs (excluding retail) will most likely be located within the Precinct. These jobs are converted to floor space using floor space per job ratios from previous SGS research. Table 16 shows the estimated floor space yield for these jobs. Converted to floorspace, these 237 jobs translate to approximately 11,944 square metres of additional floorspace by 2031.

Table 16. Population driven employment – floor space demand

Description	Fsp per job (sqm)	2016	2021	2026	2031
Local light industrial and urban support	60	373	994	1,615	1,871
Health services	70	851	2,268	3,686	4,270
Prim & sec. education and comm. services	40	1,156	3,082	5,008	5,802
Total floorspace	-	2,379	6,343	10,308	11,944

Source: SGS, 2012

5.4 Strategic ‘footloose’ employment demand

The Camden Valley Way upgrade

To assess the impact of the Camden Valley Way upgrade on the potential for footloose or strategic employment, the land within and surrounding the East Leppington Precinct was ranked for different Broad Land use Categories (BLCs).

Land is ranked on its spatial proximity to attributes such as key infrastructure and centres. Areas with higher ranks for a particular BLC are deemed to be more attractive for strategic employment locations. The Camden Valley upgrade impacts the base land ranking model with the addition of motorway on and off ramps. BLCs affected by motorway on and off ramps are Business Park (BP), Freight and Logistics (FL), Manufacturing Heavy (MH), Manufacturing Light (ML), Special Uses (S) and Urban Services (US). As there is policy direction against manufacturing employment allocation to the South West Growth Centre (SWGEC), MH and ML BLCs can be removed from consideration in this analysis. Special Uses and Urban Services BLCs can also be ignored as these employment types usually require local or state planning direction. Business Park and Freight and Logistics employment are unconstrained by policy direction and have good potential in areas where supported.

The spatial criteria used to determine the rank for the Business Park and Freight and Logistics BLCs can be seen in Table 17.

Table 17. Spatial attributes of Broad Land use Categories

Criteria	Application	BP	FL
Type of Centre	land within Specialised, Regional and Major centres	1	0
	land proximate to any centre (except major or above)	0	1
Population	land within 2km of centre buffer edge	1	0
	land outside centre buffers	0	1
Executive housing	land within 30 min drive from existing executive housing locations	1	0
Industrial lands	industrially zoned land	1	1
University lands	university lands	1	1

Hospital lands	hospital lands	1	1
Public transport access	land within 800m from rail stations and bus interchanges	1	1
Arterial road access	land within 800m from arterial roads	1	1
Motorway ramps	land within 2km from motorway on/off ramps	1	1
Rail line	land within 1km from rail line	0	1
Total		9	9

Source: SGS, 2012

Table 18 identifies the cumulative scores, and relative rank for each precinct in the SWGC for Business Park.

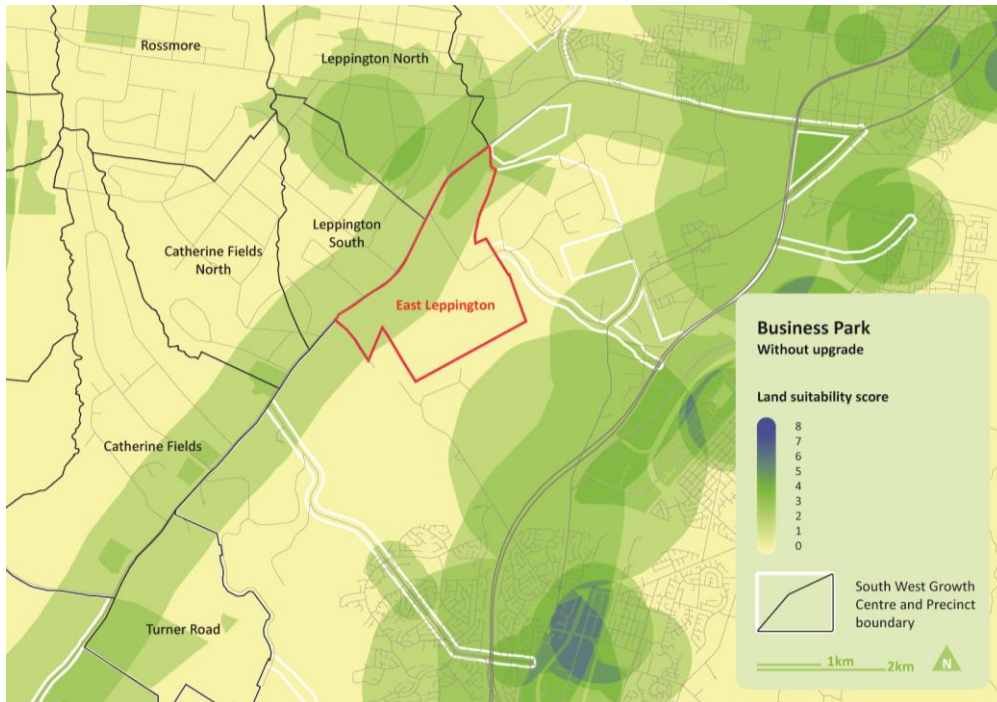
Table 18. SWGC BLC scores – Business Park

Without upgrade			With upgrade		
Precinct Name	BP	Rank	Precinct Name	BP	Rank
Leppington	3	1	Leppington	4	1
Leppington North	3	1	Leppington North	4	1
Catherine Fields	2	2	Catherine Fields	3	2
Catherine Fields North	2	2	Catherine Fields North	3	2
East Leppington	2	2	East Leppington	3	2
Edmondson Park	2	2	Edmondson Park	3	2
Future Industrial	2	2	Future Industrial	2	3
Kemps Creek	2	2	Kemps Creek	2	3
Lowes Creek	2	2	Lowes Creek	2	3
Marylands	2	2	Marylands	2	3
Oran Park	2	2	Oran Park	2	3
Turner Road	2	2	Turner Road	2	3
Austral	1	3	Austral	1	4
Bringelly	1	3	Bringelly	1	4
North Bringelly	1	3	North Bringelly	1	4
Rossmore	1	3	Rossmore	1	4
North Rossmore	0	4	North Rossmore	0	5

Source: SGS, 2012

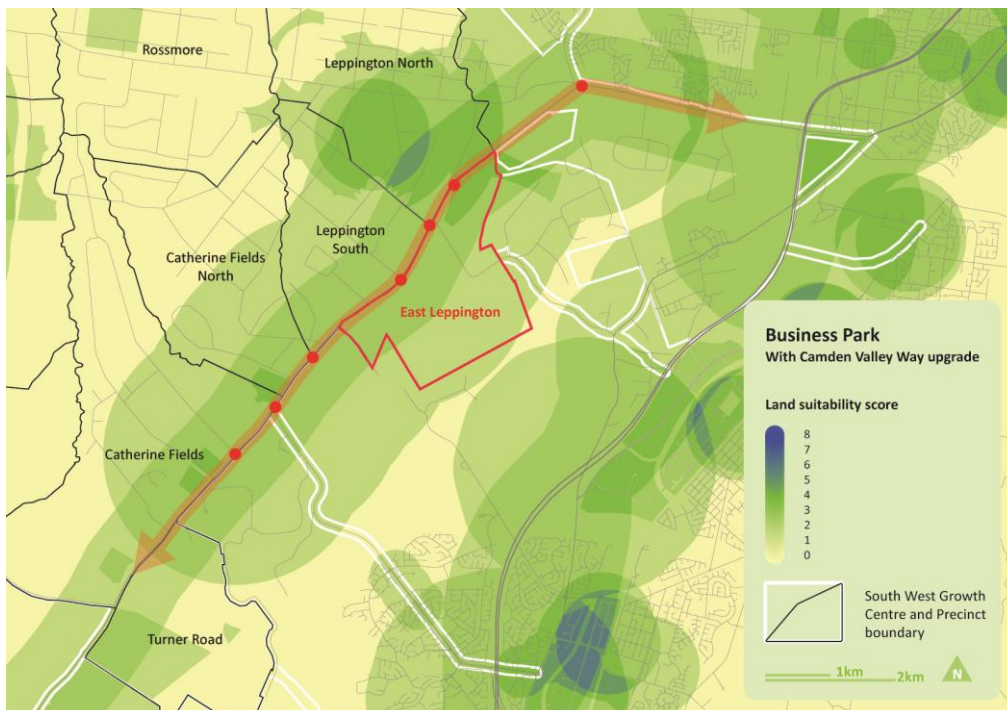
Figure 13 and Figure 14 show East Leppington and surrounds without the Camden Valley Way upgrade and with the upgrade respectively.

Figure 13. Business Park land ranks without upgrade



Source: SGS, 2012

Figure 14. Business Park land ranks with upgrade



Source: SGS, 2012

It can be seen that the precincts within the SWGC boundary, despite having an increase in cumulative land score, do not change in precinct ranked order. East Leppington remains in the equal second ranked position behind Leppington, Leppington North, Catherine Fields and Catherine Fields North.

Within close proximity, the highest ranked land for Business Park is located within the centre boundary for Ingleburn, seen to the south of East Leppington Precinct.

Table 19 identifies the cumulative scores, and relative ranks for each precinct in the SWGC for freight and logistics.

Table 19. SWGC BLC scores – freight and logistics

Without upgrade			With upgrade		
Precinct Name	FL	Rank	Precinct Name	FL	Rank
Catherine Fields	3	1	Catherine Fields	4	1
Catherine Fields North	3	1	Catherine Fields North	4	1
Edmondson Park	3	1	Edmondson Park	4	1
Future Industrial	3	1	East Leppington	3	2
Kemps Creek	3	1	Future Industrial	3	2
Lowes Creek	3	1	Kemps Creek	3	2
Marylands	3	1	Leppington	3	2
Oran Park	3	1	Leppington North	3	2
Turner Road	3	1	Lowes Creek	3	2
Austral	2	2	Marylands	3	2
Bringelly	2	2	Oran Park	3	2
East Leppington	2	2	Turner Road	3	2
Leppington	2	2	Austral	2	3
Leppington North	2	2	Bringelly	2	3
North Bringelly	2	2	North Bringelly	2	3
Rossmore	2	2	Rossmore	2	3
North Rossmore	1	3	North Rossmore	1	4

Source: SGS, 2012

Figure 15 and Figure 16 show East Leppington and surrounds without the Camden Valley Way upgrade and with the upgrade for Freight and Logistics respectively.

Figure 15. Freight and Logistics land ranks without upgrade

Source: Department of Planning, 2010

Figure 16. Freight and Logistics land ranks with upgrade

Source: Department of Planning, 2010

The upgrade to Camden Valley Way is seen to have an effect on the positioning of the SWGC precincts rank. Though still ranked equal second, there are fewer precincts with a higher rank.

Within close proximity, the highest ranked land for Freight and Logistics is located along the rail corridor between Ingleburn and Casula. This is driven by the proximity to infrastructure, rail and road, and population as well as being industrial zoned land.

Without addressing the market and supply components of drivers for strategic employment locations, East Leppington is unlikely to draw Business Park and Freight and Logistics employment as there is more suitable land located in close proximity. However, policy direction or a change in the centre plans for the SWGC could affect this.

Town centre proposal and strategic employment

Proposing a Town Centre at the Precinct would have an effect on land ranking for strategic employment in the following BLCs; Office (O), Bulky Goods Retail (RBG) and Big Box Retail (RB). These BLCs have spatial criteria outlined in Table 20 below.

Table 20. Spatial attributes of broad land use categories

Criteria	Application	O	RBG	RB
Type of Centre	land within Regional, Major and Town centres	1	1	1
	+ Specialised centres	1	1	0
	+ Village centres	0	1	1
Population	land within centres	1	1	1
Executive housing	land within 30 min drive from existing executive housing locations	1	0	0
Industrial lands	industrially zoned land	NO	NO	NO
University lands	university lands	1	NO	NO
Hospital lands	hospital lands	1	NO	NO
Public transport access	land within 800m from rail stations and bus interchanges	1	1	1
Arterial road access	land within 800m from arterial roads	1	1	1
Total		8	6	5

Source: SGS, 2012

Based on these criteria, the current score for the East Leppington Precinct is one for each of these BLCs. The expansion to a Town Centre would increase this score to a value of two, and would not significantly impact on the rank of highest ranked land within the SWGC or surrounds.

6 Assessment of town centre proposal

In the *Retail and Employment Assessment: East Leppington* report prepared by MacroPlan in 2012, it was recommended that the East Leppington Precinct could support up to 22,000 square metres of retail floorspace, including 20,000 square metres within one larger town centre located along Camden Valley Way and 2000 square metre floorspace to be distributed across small neighbourhood centres.

As part of this study, SGS is required to assess the appropriateness of the proposed town centre and its likely impacts on the similar or higher order centres in the surrounding precincts.

This section of the report details the assumptions and outcomes of this assessment.

6.1 Definition of retail system

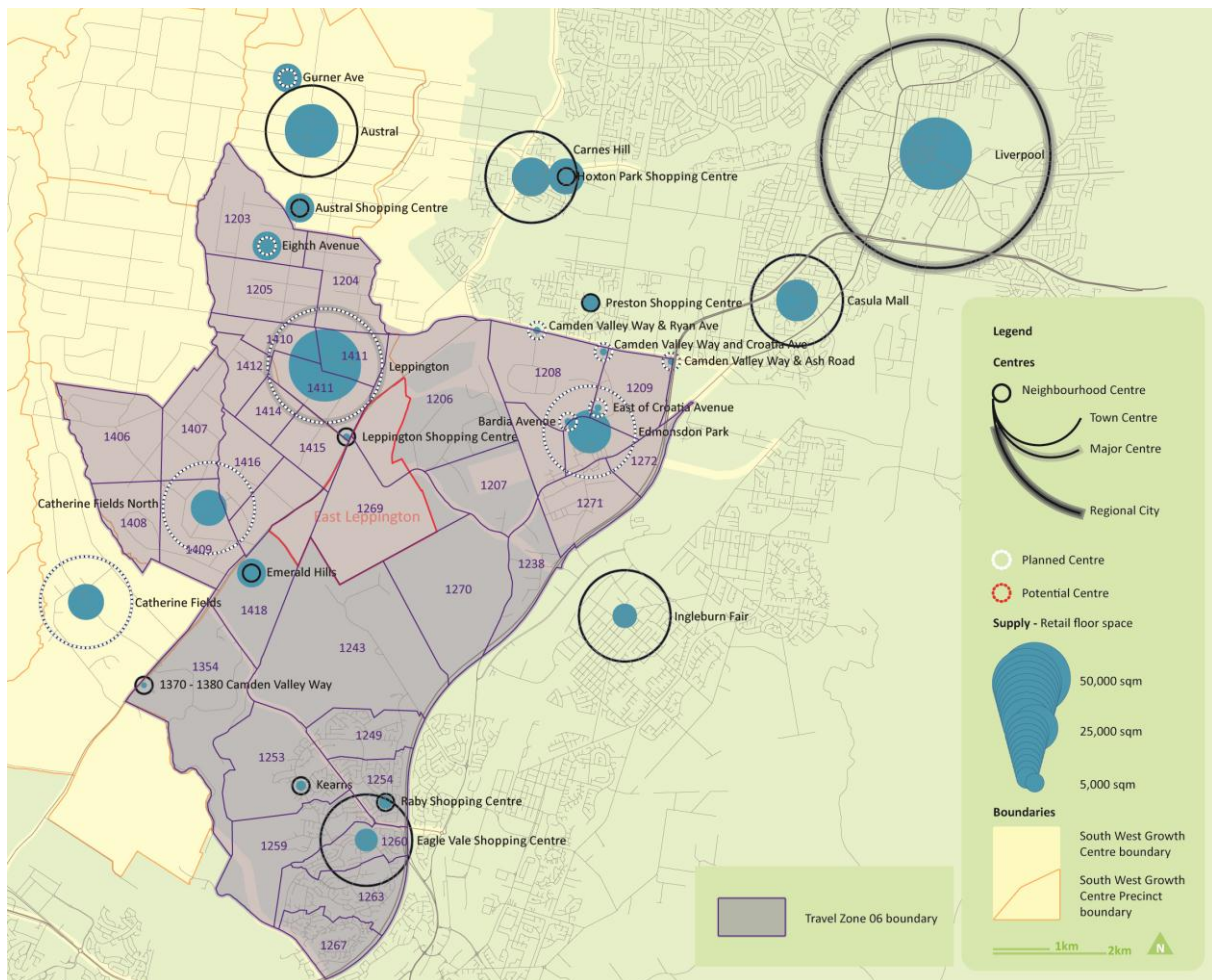
At the outset, a retail system (that comprises the East Leppington Precinct) is defined by a number of travel zones, within which the majority of the resident retail expenditure would be captured. This is highlighted by the light-purple area on the map overleaf.

Within this system, other planned town and major centres include:

- Leppington Major Centre
- Edmondson Park Town Centre
- Catherine Fields North Town Centre.

The first two stages of the Leppington Major Centre development are planned to be completed before 2026, providing a total retail floorspace of 90,000 square metre including three full line supermarkets and two department stores. It is assumed that 50 percent of the third stage development (post 2026) would be completed by 2031 with additional 40,000 square metre retail floorspace (or a total of 130,000 square metres).

By 2031, both Edmondson Park and Catherine Fields North Town Centre are expected to supply a retail floorspace of 20,000 and 15,000 square metres separately.

Figure 17. Retail system

Source: SGS, 2012

6.2 Available retail expenditure

To estimate the retail expenditure generated by residents within the system in 2031, we have revised the Bureau of Transport Statistics (BTS) population projection at the TZ level, using the latest MDP estimates within the South West Growth Centre (SWGC) provided by the DP&I.

The resident retail expenditure by TZ over time is estimated by applying the income-adjusted per-capita expenditure forecasts (as described in section 5.2) to the revised population projections. The expenditure projection by TZ is provided in Appendix B.

The available retail expenditure to town and major centres is derived in following steps, as shown in Table 21:

- Within the defined system, the total resident retail expenditure is projected to increase from \$0.5 billion in 2016 to \$3 billion in 2031 in 2011 dollars. These precincts within the system are expected to accommodate an additional 83,500 residents by 2031.
- As noted in the section 5.2, approximately 22 percent of total resident retail expenditures are typically captured by neighbourhood centres within close proximity to residents' homes. In this case, the total expenditure at neighbourhood centres is projected at \$447 million by 2031. Note that this assumes that an adequate amount of retail floorspace will be provided at the neighbourhood nodes of each precinct to accommodate the resident population growth over time.
- It is also estimated that 20 percent of those resident retail expenditures is likely to escape to the centres and bulky goods precincts outside the defined system. In total, the escaped expenditure amounts to around \$406 million in 2031.
- The expenditures available to town and major centres are derived by subtracting the escaped expenditures and expenditures at neighbourhood centres from the total retail expenditure within the system. In 2031, this is projected to exceed \$1.17 billion.

Table 21. Resident retail expenditure analysis, in 2011 dollars

Resident retail expenditures	Formulas	2016	2021	2026	2031
Total expenditure within the system	A	\$502,206,895	\$839,578,959	\$1,496,562,548	\$2,032,575,460
Expenditures at neighbourhood centres	$B=A \times 22\%$	\$110,485,517	\$184,707,371	\$329,243,760	\$447,166,601
Escaped (to centres and bulky goods precincts outside of the system)	$C=B \times (10\% + 10\%)$	\$100,441,379	\$167,915,792	\$299,312,510	\$406,515,092
Expenditures available to town and major centres	$A-B-C$	\$291,279,999	\$486,955,796	\$868,006,278	\$1,178,893,767

Source: SGS (2012)

In addition to the resident expenditure within the system, some of those centres, particularly the Leppington Major Centre, are likely to draw expenditures from residents outside the system. Workers may also shop at those centres during their lunchtime as well as before and after work, even if they do not live within the system. These additional expenditures that would contribute to the total turnovers of town and major centres are not considered in this analysis.

6.3 Average RTD calculation

We have then calculated the RTD (average turnover per square metre) by dividing the total available retail expenditure to town and major centres by the aforementioned planned floorspace at 2031.

Table 22 shows that the resultant RTDs in 2031, should the proposed town centre in East Leppington proceed or not. On average, town and major centres within the system are expected to be trading at \$7145 per square metre in 2031, without the proposed town centre. With the addition of 20,000 square metre retail floorspace to the system, the average RTD is expected to reduce to \$6300 per square metre. This level is close to the typical performance of a major centre but well below the average RTD of a town centre, according to the Urbis Retail Averages.

Hence, it is concluded that the introduction of 20,000 square metre town centre at East Leppington would lead to an excessive supply of town and major centre floorspace within the system, when compared against the retail expenditure attributable to these centres.

Table 22. Average RTD for town and major centres, in 2011 dollars

	Total retail expenditure available to town and major centres (\$)	Total retail floorspace of town and major centres (sqm)	Average Retail Turnover Density (\$/sqm)
Without the proposed town centre at East Leppington	\$1,178,893,767	165,000	\$7,145
With the proposed town centre at East Leppington		185,000	\$6,372

Source: SGS, 2012

6.4 Retail gravity model impact

Further to the analysis above, a Retail Gravity Model has been constructed to examine the impact of the proposed town centre at East Leppington on the performance of surrounding similar order centres.

Gravity model method

The model distributes the available retail expenditure using a gravity distributional mechanism. A gravity model, as its name implies, looks at the likelihood or propensity of a particular person to gravitate towards a retail centre. These types of models estimate how much of a person's home-based retail expenditure will be spent at a particular centre based on two opposing forces.

- **An attracting force** – if all retail centres were at your doorstep people will still have a preference to visit one centre over the other. This is a result of floorspace (as shoppers tend to enjoy greater variety and choice), the quality of the retailers, the price, the supplementary businesses (for example cinemas, entertainment) and so on.
- **A detracting force** – this is generally represented as how far away the centre is. Given the associated costs of travel (all other things equal between two centres) a shopper will try and shop at the closer centre.

These two forces determine the market pull of a particular centre which is then used to determine how much of each resident's retail expenditure (that is, market share) will be spent at that particular centre. For a group of residents within the same TZ, the market pull of a centre is calculated as follows:

$$\begin{aligned}\text{Market Pull} &= \frac{\text{Attraction Force}}{\text{Detracting Force}} \\ &= \frac{('Attractiveness' \text{ of the centre}) * (\text{Floorspace of the centre})}{(\text{Travelling time from the customer to the centre})^2}\end{aligned}$$

The market share, or percent of expenditure that is likely to be spent at a particular centre, is then calculated as follows:

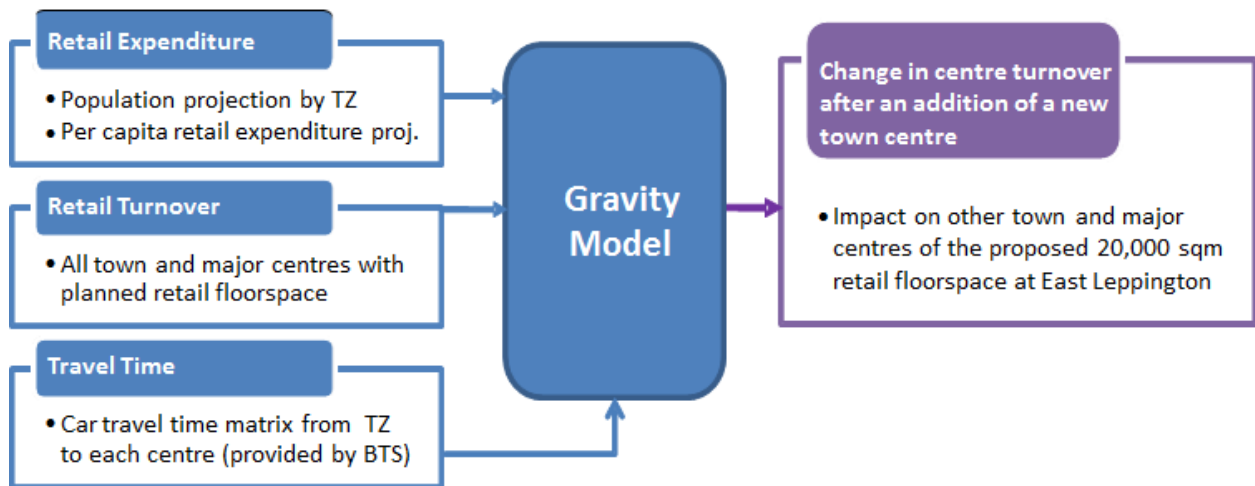
$$\text{Market Share} = \frac{(\text{Market Pull of Centre X})}{\text{Sum of (Market Pull to all Centres within the Model)}}$$

The 'attractiveness' of a centre is determined by using the estimated retail turnover as a basis and working backwards to find the "attractiveness" value at the present time. This attractiveness value is then used to estimate how centres would perform given the change in supply and demand side variables over time.

In this case, the model is used to examine the impact of an addition of 20,000 square metre retail floor space at East Leppington on the performance of other town and major centres within the system.

The model inputs and outputs, in the context of the current study, are summarised in Figure 18.

Figure 18. Gravity model inputs and outputs



Source: SGS, 2012

Retail turnover estimate

As described above, a base scenario is firstly constructed to estimate the 'attractiveness' of each planned town and major centre without inclusion of the proposed town centre at East Leppington. Hence, the turnover of each planned centre is estimated, as shown in Table 23. In total, they equate to the available retail expenditure attributable to those centres (see Table 21).

Table 23. Turnover estimates of planned town and major centres, in 2011 dollars

Centre	Planned floorspace at 2031	Estimated RTDs	Turnover at 2031
Leppington Major Centre	130,000	\$7,021	\$912,714,738
Edmondson Park Town Centre	20,000	\$7,605	\$152,102,302
Catherine Fields North Town Centre	15,000	\$7,605	\$114,076,727
Total	165,000	N/A	\$1,178,893,767

Source: SGS, 2012

Impact analysis

A second scenario is then constructed by adding the proposed town centre of 20,000 square metres at East Leppington to the retail system. It is expected that the proposed town centre would be at least trading at the average RTD (\$7145 per square metre) for other town and major centres prior to its entrance. Its annual turnover is therefore estimated to be around \$143 million in 2011 dollars.

After inputting the new turnover estimate to the model, the remaining retail expenditure (after deducting the turnover of East Leppington Town Centre from the total available expenditure) is

distributed amongst other planned town and major centres, based on the 'attractiveness' index estimated in the base scenario. Table 24 shows the resultant turnover and RTD for each of these centres, in comparison to the figures in Table 23.

Table 24. Impact on planned town and major centres, with addition of 20,000 sqm

Scenarios		Leppington Major Centre	Edmondson Park Town Centre	Catherine Fields North Town Centre
Without town centre in East Leppington (Base)	Turnovers	\$912,714,738	\$152,102,348	\$114,076,681
	RTDs	\$7,021	\$7,605	\$7,605
With town centre in East Leppington (20,000 sqm)	Turnovers	\$798,254,738	\$132,133,390	\$105,609,459
	RTDs	\$6,140	\$6,607	\$7,041
% Impact		13%	13%	7%

Source: SGS, 2012

Significant retail impact is often measured by a reduction in turnover (or RTD) of 10 percent. In this case, both Leppington Major Centre and Edmondson Park Town Centre would be significantly affected by the introduction of the proposed town centre at East Leppington, with an expected reduction in turnover (or RTD) of 13 percent. Catherine Field North Town Centre would be less affected, as it would be surrounded by a relatively denser population.

The *Urbis Retail Average* (2009) suggests that a typical RTD for a sub-regional centre (which has at least a department store) and a regional centre with single discounted department store is around \$6260 and \$6780 respectively. According to this, both Leppington Major Centre and Edmondson Park Town Centre would be underperforming, compared to the average performance of such centres.

An iterative analysis shows that an addition of around 15,000 square metres of local centre¹⁸ retail floorspace by 2031 would keep the performance of these planned centres just above the typical level. The resultant RTDs are shown in the table below.

Table 25. Impact on planned town and major centres, with addition of 15,000 sqm

Scenarios		Leppington Major Centre	Edmondson Park Town Centre	Catherine Fields North Town Centre
Without local centre in East Leppington (Base)	Turnovers	\$912,714,738	\$152,102,348	\$114,076,681
	RTDs	\$7,021	\$7,605	\$7,605
With local centre in East Leppington	Turnovers	\$825,741,424	\$137,855,730	\$108,124,471
	RTDs	\$6,352	\$6,893	\$7,208
% Impact		9.5%	9.4%	5.2%

Source: SGS, 2012

¹⁸ For the purpose of this report, a small town/village centre of 15,000 sqm is referred to as a local centre.

It is therefore suggested that a local centre retail floorspace of 15,000 square metres at East Leppington by 2031 would be appropriate.

6.5 Floorspace thresholds over time

A similar analysis, as described above, has been replicated to identify the supportable size of the proposed local centre over time. It finds that the local centre at East Leppington is only expected to support 4000 square metre retail floorspace by 2016, due to slow population growth in the retail system over the next five years. However, the centre is likely to reach its full capacity (of 15,000 square metre retail floorspace) at 2021, recognising that the stage two of Leppington Major Centre development (with additional 50,000 square meters) would not be completed until 2026.

Table 26 highlights the total supply of town and major centre floorspace within the system and the average RTDs over time, after incorporating the aforementioned floorspace thresholds for the proposed local centre at East Leppington. Note that these average RTDs have been kept above a minimum viable level for each five year interval.

Table 26. Average RTDs of planned town and major centres over time, in 2011 dollars

	2016	2021	2026	2031
Expenditures available to town and major centres	\$291,279,999	\$486,955,796	\$868,006,278	\$1,178,893,767
Total floorspace supply	44,000	65,000	120,000	180,000
<i>Leppington Major Centre</i>	<i>40,000</i>	<i>40,000</i>	<i>90,000</i>	<i>130,000</i>
<i>Edmondson Park TC</i>		<i>10,000</i>	<i>15,000</i>	<i>20,000</i>
<i>Catherine Fields North TC</i>				<i>15,000</i>
<i>East Leppington TC</i>	<i>4,000</i>	<i>15,000</i>	<i>15,000</i>	<i>15,000</i>
RTDs	\$6,620	\$7,492	\$7,233	\$6,549

Source: SGS, 2012

7 Retail visitation and car parking

To assist with the traffic and transport analysis of the East Leppington development, visitation numbers have been estimated separately for shopping trips entering and leaving the East Leppington Precinct. The car parking requirement for both retail and employment uses is also discussed in this chapter.

7.1 Trips entering the Precinct

In 2010, SGS conducted a telephone survey for 400 households in the ACT to study their retail expenditure patterns. The survey finds that on average households in the ACT spend around \$160 per retail shopping trip, which includes expenditures on all kinds of the commodity and store types, ranging from weekly supermarket/grocery shopping to less frequent household goods shopping.

As the estimated income profile for future residents at East Leppington and the surrounding precincts within the system is found to be very similar to the average income profile of residents living in the ACT, we have estimated the average spend per trip over time by residents within the retail system by applying an annual real growth rate in retail expenditure of 1 percent per annum. By 2031, this amounts to approximately \$210 per trip in 2011 dollars.

The shopping trips entering the East Leppington Precinct were derived by dividing the retail expenditures flowing to the Precinct by the estimated average spend per trip. The detailed calculation is provided in Table 27.

Table 27 shows that the peak volume of retail trips entering the Precinct would occur in 2021, with around 413,000 trips per annum. This is due to a temporary under provision of town centre floorspace elsewhere in the retail system. By 2031, the number of trips is expected to drop to around 130,000 per annum.

Table 27. Shopping trips entering the East Leppington Precinct

	Formulas	2016	2021	2026	2031
Total resident retail expenditure of East Leppington Precinct	A	\$40,141,336	\$112,997,753	\$192,769,829	\$234,577,479
Expenditures at the TC	$B=30\% \times A$	\$12,042,401	\$33,899,326	\$57,830,949	\$70,373,244
Proposed TC at East Leppington					
Floorspace		4,000	15,000	15,000	15,000
Turnover	C	\$26,480,000	\$112,380,000	\$108,495,000	\$98,235,000
Expenditures entering the Precinct	$D=C-B$	\$14,437,599	\$78,480,674	\$50,664,051	\$27,861,756
Average retail spending per trip	E	\$181	\$190	\$200	\$210
Retail trips entering the	D/E	79,911	413,299	253,861	132,830

Precinct per annum					
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Source: SGS, 2012

7.2 Trips leaving the Precinct

The ACT survey also found that households on average make 11 trips per annum for clothing and footwear shopping and four trips per annum for household goods shopping. Considering that these shopping trips would capture most of the expenditure escaped to the centres or bulky goods precincts outside the Precinct, it is estimated that 80 percent of these trips would leave the Precinct.

Hence, the trips leaving the Precinct have been derived by multiplying 80 percent of the annual frequencies of clothing and footwear and household goods shopping trips with the projected number of households over time at East Leppington. It assumes that households would do their clothing and footwear and household goods shopping separately.

As shown in Table 28, more than 54,200 retail trips are expected to travel to destinations outside the East Leppington Precinct by 2031.

Table 28. Shopping trips leaving the East Leppington Precinct

	Formulas	2016	2021	2026	2031
No. of households at East Leppington over time	A	900	2,400	3,900	4,519
Trip frequency					
Clothing and footwear	B1	11	11	11	11
Household goods	B2	4	4	4	4
Retail trips leaving the Precinct per annum	$80\% \times (B1+B2) \times A$	10,800	28,800	46,800	54,228

Source: SGS, 2012

7.3 Car parking

The East Leppington Precinct is located within three LGAs – Campbelltown, Liverpool and Camden. Each of the Councils has parking requirements (minimum number of car parking spaces) for certain land uses as specified in Council's Development Control Plans (DCPs). Additionally, the *RTA Guide for Traffic Generating Developments 2002* outlines all aspects of traffic generation considerations relating to developments, including car parking requirements for specific land uses.

Some of the precincts surrounding East Leppington in the SWGC also have adopted DCPs. The *Oran Park DCP 2007*, for example, has a requirement for retail facilities to provide parking at the rate of

one space per 30 square metres within the Oran Park Town Centre. This DCP, however, needs to be read in conjunction with the Camden DCP parking requirements.

Table 29 demonstrates a range of off-street parking requirements (square metres per car parking space) as specified in the *Camden Council DCP 2011*, *Liverpool DCP 2008* and *Campbelltown (Sustainable City) DCP 2009* as well as in the *RTA Guide for Traffic Generating Developments*. Because car parking requirements differ from council to council, minimum and maximum requirements for square metres per one car parking space have been applied.

Table 29. Car parking requirements in Campbelltown, Liverpool and Camden

Land use	Parking spaces per 100sqm	
	Max	Min
Retail		
Town Centre	4	2.9
Neighbourhood Centre		
Supermarket	5	4
Other food	5	3.3
Clothing	5	3.3
Household	5	4
Other Retail	6.2	3.3
Hospitality and Services	15	12
Employment lands		
Car service and repair; joinery, construction and building supplies; and domestic storage	3.3	1.4
Health services	4	2.9
Primary and secondary education, social and community services	4	2.9

Source: Compiled by SGS (2012) from Camden Council DCP 2011, Liverpool DCP 2008 & Campbelltown (Sustainable City) DCP 2009, RTA Guide for Traffic Generating Developments 2002.

We have then applied the maximum and minimum car parking spaces per 100 square metres to the retail and other employment related floorspace for each centre (see section 8.2) to estimate the car parking requirement at each centre. The table below shows that there will be need for 480 to 660 spaces at the local centre, 170 to 220 spaces at the neighbourhood centre in the northern part and 220 to 290 spaces at the neighbourhood centre in the southern part. In addition, up to 60 spaces would be required for the local light industrial area. Note that it is assumed that parking required for the primary school will be provided on-site.

Table 30. Car parking requirements at East Leppington, spaces

Land use	Local centre		Neighbourhood Centre (N)		Neighbourhood Centre (SE)		Local lights	
	Max	Min	Max	Min	Max	Min	Max	Min
Retail uses								
Town Centre	600	435						
Neighbourhood Centre								
Supermarket			78	63	109	88		
Other food			11	7	16	10		
Clothing			0	0	0	0		
Household			5	4	7	5		
Other Retail			16	8	22	12		
Hospitality and Services			55	44	78	62		
Employment uses								
Local light industrial							62	26
Health services	57	41	57	41	57	41		
Community services					40	29		
Total car space	657	476	222	168	328	247	62	26

Source: SGS estimates (2012) based on rates from three councils

8 Preferred centres hierarchy

This section assesses three options for the centres hierarchy in the East Leppington Precinct. A preferred centre hierarchy for the Precinct will be identified, along with a recommended maximum retail floor space if appropriate as well as discussion of indicative centre compositions and centre design principles.

8.1 Options

The analysis of retail floor space demand shows that there is demand for 7500 square metres to 9,000 square metres of neighbourhood centres at 2031 (base case estimate 8400 square metres). The analysis demonstrates that the introduction of a larger local centre with up to 15,000 square metre retail floorspace within the system would have acceptable impacts on the trading of the proposed Leppington major centre, Edmondson Park town centre and the proposed North Catherine Fields town centre.

In regards to employment land, population driven employment (generated by the population growth of the Precinct) would lead to a demand for an additional 11,000 square metres of non-retail employment land uses, including community and health services, education and light industrial / urban support. This would include an allocation for education jobs in the Precinct, which should be located in close proximity to a centre. Consideration of a small light industrial area to service the population of East Leppington Precinct should be considered.

The analysis provided in this report did not suggest any reconsideration of the Precinct for location of lands for strategic employment.

Three scenarios were considered for the distribution of employment and retail within the East Leppington Precinct, including:

- Distribution of neighbourhood retail floor space across three walkable neighbourhood centres
- Distribution of neighbourhood retail floor space across two larger neighbourhood centres, or
- Location of retail floor space in a town centre of 20,000 square metres as per the proposal by Macro plan (with some minor neighbourhood centre floor space).

In regards to the options:

Option 1

The first option would lead to three small neighbourhood centres each with a retail floor space in the order of 2,800 square metres (if an even distribution across the three centres was able to be achieved).

When this is compared to the neighbourhood centres in the surrounding area, this would see centres with a similar composition to the Raby Shopping Centre. This neighbourhood centre has 2500 square metres GLA and contains a small supermarket of 1000 square metres and neighbourhood shops including a video store, newsagency, takeaways, butchery, hairdresser, bakery and also a pub. Another similar centre services the suburb of Kearns and has 1500 square metres GLA of retail. This includes a small supermarket of 1000 square metres as well as a butcher, bakery, newsagency, takeaway, restaurants and hairdresser.

There would be the opportunity to distribute floor space for employment land uses, to support the establishment of neighbourhood centres with community facilities, local primary school and services such as minor health services. This would be in the order of 10,000 square metres of non-retail floor space across the centres. This would lead to an indicative 3300 square metres per centre.

It should be noted that for all options the size of sites for primary schools should be considered in development of neighbourhood centre plans, and this analysis does not provide analysis of the appropriate catchment and size for a primary school.

Light industry and urban support services would not necessarily be best located as part of neighbourhood centres in residential neighbourhoods, and should consider a suitable location.

This pattern would encourage walkability within the neighbourhoods, with closer to the 400 to 600 metre (five minute) catchment proposed by the structure plan. Due to the lack of a larger centre, significant travel outside the Precinct would be expected to access village and town centre retail, commercial and services. The ability of these small centres to support a larger supermarket anchor store would be more limited.

Option 2

The second option would lead to two larger neighbourhood centres with a retail floor space in the order of 4200 square metres.

This is a similar size to the Preston's shopping centre, which has a larger supermarket and local neighbourhood shops as well as a medical centre, pharmacy, bottle shop and small office spaces.

There would be the opportunity to distribute floor space for employment land uses, to support the establishment of neighbourhood centres with community facilities, local primary school and services such as minor health services. This would be in the order of approximately 10,000 square metres of non-retail floor space across the centres. The location of light industry and urban support services would not necessarily be best located as part of neighbourhood centres in residential neighbourhoods.

This pattern would encourage walkability, even though it is more likely to be a catchment of 800 metres (10 minutes walk), to these centres. These centres would allow the opportunity for a larger supermarket anchor for the centre within the neighbourhoods and better support the scale for a range of retail and services. Due to the lack of a larger centre, residents would be expected to travel outside the precinct to access the town centre retail, commercial and services.

Option 3

The third option, proposed by Macroplan, would be for a town centre in the order of 20,000 sqm retail, with 2000 square metres of floor space distributed elsewhere for neighbourhood shopping in the Precinct. The MacroPlan proposal is for concentration of retail floor space into one centre, located on Camden Valley Way.

The Macroplan proposal includes two full line supermarkets, a discount department store and 70 to 100 specialty shops in addition to banking and medical services. Similar comparisons in the area include the Casula Shopping Mall which has over 19,000 square metres GLA retail and includes a large supermarket of over 5300 square metres, a smaller supermarket of approaching 2000 square metres, a discount department store of 7800 square metres with approximately 5100 square metres of specialty stores. This is in a large retail 'big box'.

There would be the opportunity with a consolidated town centre to incorporate land for non-retail uses, community, health and educational services. In addition it may be appropriate to consider a small service light industrial area, if this can be located in a manner that minimises impact on surrounding residential land uses. This would allow for the nearly 11,000 square metres of non-retail employment land use to be incorporated as part of the town centre. At present the MacroPlan proposal appears to make some allowance for non-retail floor space.

This option reduces the walkability of the residential areas of the Precinct to the town centre, although it is proposed for distribution of 2000 square metres of neighbourhood retail floor space throughout the Precinct. However, in regards to travel outside the Precinct, this town centre would reduce trips through easier access to a town centre.

Centre location

With regards to the location of these three centres, an analysis of potential locations and an 800 metre catchment has been shown in the following plan, based on the three locations in the preliminary Draft ILP, and consideration of a fourth location.

When considering the location for the local centre, this should provide good access from the surrounding East Leppington Precinct and also be accessible from a catchment including future development areas to the west of Camden Valley Way and to the south. The current location of the 'local centre' in the draft ILP provides good access and opportunity for walkability from within East Leppington, however, it is located away from the main road access at the intersection of Heath Road and Camden Valley Way.

Similarly the location of the 'preferred location for neighbourhood services,' at the gateway to the East Leppington Precinct at Camden Valley Way and Heath Road improves wider access but reduces the opportunities for walkability within the Precinct.

When considering the distribution of neighbourhood centre retail floor space, the primary goal would be to encourage walkable access from within the East Leppington Precinct. In regards to the local centre the dual goal of the access to a wider catchment as well as to East Leppington should be considered.

Due to the wider goal to improve walkability to neighbourhood centres, it is proposed that if a local centre is to be included, then one of the neighbourhood centres should be located in the northern section of the Precinct.

If the location of the local centre was to be at the gateway to East Leppington at Heath Road and Camden Valley Way, and had reduced walkability from within the Precinct, then it is proposed that a second neighbourhood centre should be located in the south-east of the Precinct. It should be noted that this location for the centre would potentially be impacted by the local centre location in capturing neighbourhood centre expenditure, and this will need to be assessed (in the following section).

8.2 Preferred centres hierarchy

As outlined in the retail impact analysis, it is proposed that the retail floor space for a large local centre be capped at **15,000 square metres**. However, this analysis does support the location of a town centre proposed in MacroPlan's report as part of the Precinct.

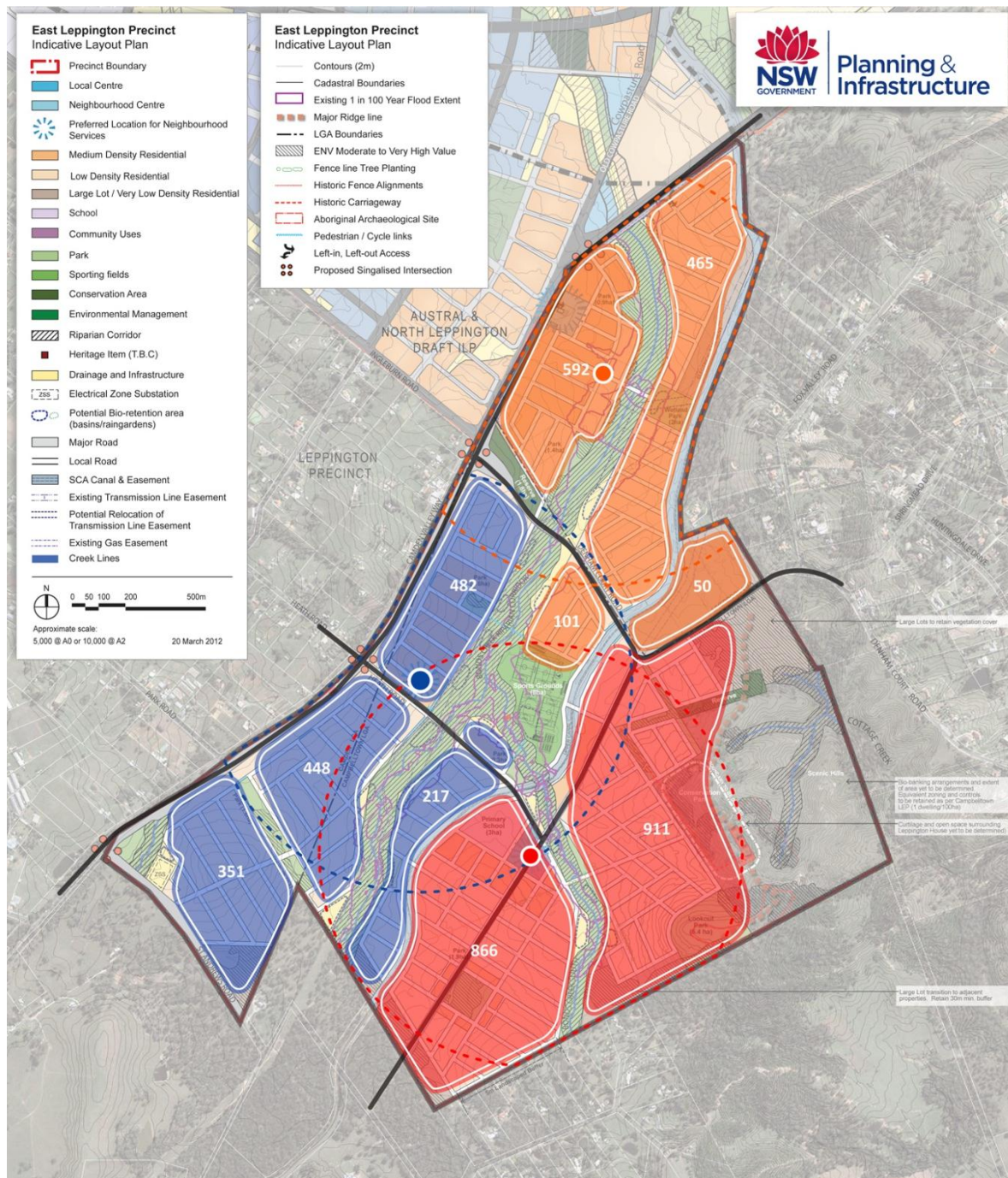
The local centre should be limited to 4000 square metres of retail floor space, until after 2016, and that a maximum retail floor space of 15,000 square metres should be included in relevant statutory plans.

A local centre location should be considered in the preparation of the Draft ILP that balances access to a wider catchment to the west and south with access from dwellings in the East Leppington Precinct. A central location in the southern part of the site would be preferred. However, due to the need for access to a wider catchment, a location to the east of Camden Valley Way at Heath Road would be appropriate.

In addition to the location of the local centre, it is proposed that locations be selected for two neighbourhood centres within the Precinct. One should be located to service the neighbourhoods in the north of the precinct, with a location that maximises access for residents of the Precinct, and the other should be accessible to a walkable catchment in the south eastern part of the Precinct.

These locations are shown on the map below, which also identifies likely neighbourhood "walkable" catchments for neighbourhood centres. For this analysis the local centre would also be an accessible location from part of the East Leppington Precinct for neighbourhood centre functions.

Dwellings distribution by neighbourhood centre catchment



This mapping of likely neighbourhood catchment areas suggests that of the Precinct demand for neighbourhood centres, the neighbourhood centre in the northern part of the site would be most accessible to 27% of the Precinct, and the neighbourhood centre in the south-east would be accessible to 40%. This is shown in the table below.

Dwellings in neighbourhood centre catchments

Centres at East Leppington	Dwellings in its walkable catchment	% of dwellings
Local centre	1498	33%
Neighbourhood centre (north)	1208	27%
Neighbourhood centre (south east)	1777	40%
Total dwellings in precinct	4483	100%

Source: SGS, 2012

As a result of the potential impact of the local centre on the demand for neighbourhood centres in the Precinct, it is proposed that the floor space for the two neighbourhood centres be reduced in line with their proportion of the Precinct in their catchments.

This would lead to neighbourhood centres with the following retail component:

- Neighbourhood centre in the northern part of the Precinct – **2500 square metres** (based on the projected demand for 2300 square metres retail), and
- Neighbourhood centre in the SE part of the Precinct – **3500 square metres** (based on the projected demand for 3400 square metres retail).

The local centre would have a dual function as a neighbourhood centre for part of the Precinct, and as a large local centre for a larger catchment. The retail floorspace cap of 15,000 square metres is proposed to be retained, as exceeding this level would lead to an unacceptable level of impact on town and major centres in the surrounding system. This would also support the viability of the two neighbourhood centres within the Precinct as part of the long-term centres hierarchy for the area.

While a maximum floor space is proposed for neighbourhood retail, it is not proposed to incorporate any restriction on the timing for development of these centres. Demand for these centres will be linked to the population growth of the Precinct, and should be linked to the staging and location of development.

As outlined in the table below, the distribution of floor space for the non-retail has been identified along with a calculation of land area required for each centre. Urban support and light industrial land use (if provided) should be located in an accessible location with good road access (such as through consolidating the existing service station DA approved on Camden Valley Way in the northern part of the Precinct).

In liaison with the master planner, the location proposed for the primary school has been in association with the south east neighbourhood centre (based on the preliminary ILP identification of a single primary school in a central location in the southern part of the Precinct). In regards to local health services, it is proposed to distribute these evenly amongst the local centre and two neighbourhood centres.

The minimum land use requirements for each centre and light industrial area are included in the table below. Note that we have taken out the land required for the primary school from the neighbourhood centre in the southern part, as this has been separately allowed in the ILP. We have also calculated the car parking requirement based on the minimum car parking rates (from Councils' DCPs) for retail and non-retail uses. These minimum rates are generally consistent with the rates suggested in the Draft Growth Centre DCPs being developed by Camden and Liverpool Councils for the Austral and other precincts.

Total floor space and land requirement

Description	Retail		Other employment uses		Car parking (spaces)		Total land area (sqm)
	Floor space (sqm)	Land Area (sqm)	Floor space (sqm)	Land Area (sqm)	Car spaces	Land Area (sqm)	
Local Centre	15,000	25,000	1,423	2,828	476	14,288	42,116
Neighbourhood Centre (N)	2,500	3,452	1,423	2,828	168	5,030	11,311
Neighbourhood Centre (SE)	3,500	4,833	2,423	5,146	247	7,417	17,396
Light industrial uses			1,871	4,449	26	786	5,235
Total	21,000	33,286	7,141	15,252	917	27,522	76,059

Source: SGS, 2012

Approximately 0.50 hectares could be included in a separate light industrial zone (if required) in the north of the site. Within the local centre, approximately 2.5 hectares of land will be required for retail uses. Note this does not include car parking.

9 Conclusions

In conclusion, the analysis of the retail and employment demand supports the establishment of a large local centre and two neighbourhood centres within the East Leppington Precinct.

The retail impact analysis suggests that the retail floorspace in the large local centre should be capped to 15,000 square metres, and that a maximum of 4000 square metres should be allowed until after 2016. This level of retail is modelled to have an acceptable level of impact on the proposed Leppington major centre, the proposed Edmondson Park town centre and the Catherine Fields North town centre.

Two neighbourhood centres with 2500 square metres and 3500 square metres of retail, respectively, should also be included in the ILP.

These local and neighbourhood centres should incorporate retail in addition to a range of commercial, community, educational and health services. The location of the neighbourhood centres should aim to maximise opportunities for access within an 800 metre walkable catchment. The location of the large local centre should balance the need for accessibility to a wider catchment to the west and south, while remaining accessible from within the East Leppington Precinct.

An analysis of the impact of the upgrade of Camden Valley Way on the attractiveness of East Leppington Precinct as a location for strategic employment uses, suggests that whilst this upgrade will improve access, it does not change the relative distribution projected for strategic employment.

The introduction of an additional local centre into the planning for the south west growth centre will be a positive addition to the centres hierarchy, whilst not undermining the development of the Leppington major centre or surrounding town and village centres.

Appendix A - Retail category definitions

Retail categories	Industry groups/subgroups (in ANZSIC 2006)
Food	Supermarket and grocery stores (4110)
	Non-petrol sales (convenience stores) of selected Fuel retailing (4000)
	Liquor retailing (4123)
	Fresh meat, fish and poultry retailing (4121)
	Fruit & vegetable retailing (4122)
	Other specialised food retailing (4129)
Clothing and soft goods	Clothing retailing (4251)
	Footwear retailing (4252)
	Watch and jewellery retailing (4253)
	Other personal accessory retailing (4259)
	Clothing retailing (4251)
	Department stores (4260) (part)
Household goods	Furniture retailing (4211)
	Floor coverings retailing (4212)
	Houseware retailing (4213)
	Manchester and other textile goods retailing (4214)
	Electrical, electronic and gas appliance retailing (4221)
	Computer and computer peripheral retailing (4222)
	Other electrical and electronic goods retailing (4229)
	Hardware and building supplies retailing (4231)
	Garden supplies retailing (4232)
	Department stores (4260) (part)
Hospitality and services	Cafes and restaurants (4511)
	Catering services (4513)
	Takeaway food services (4512)
Other retailing	Newspaper and book retailing (4244)
	Sport and camping equipment retailing (4241)
	Entertainment media retailing (4242)
	Toy and game retailing (4243)
	Pharmaceutical, cosmetic and toiletry goods retailing (4271)
	Stationery goods retailing (4272)
	Antique and used goods retailing (4273)
	Flower retailing (4274)
	Other-store based retailing n.e.c (4279)
	Non-store retailing (4310)
	Retail commission-based buying and/or selling (4320)
Department store	Department stores (4260) (part)

Source: ABS Retail Trade classifications

Appendix B – Retail expenditure forecasts by TZ

TZ06	LGA_NAME	Retail expenditure forecasts (in 2011 dollars)			
		2016	2021	2026	2031
1203	Liverpool (C)	\$6,435,184	\$19,815,968	\$54,634,637	\$94,414,450
1208	Liverpool (C)	\$15,398,966	\$66,145,883	\$123,202,897	\$129,386,940
1206	Liverpool (C)	\$55,706,811	\$80,168,346	\$102,064,843	\$115,572,223
1271	Campbelltown (C)	\$22,677,481	\$54,175,479	\$89,457,340	\$93,947,559
1270	Campbelltown (C)	\$0	\$0	\$0	\$0
1238	Campbelltown (C)	\$5,025,101	\$5,304,617	\$5,568,906	\$5,848,432
1243	Campbelltown (C)	\$2,304,410	\$2,432,591	\$2,553,788	\$2,681,973
1249	Campbelltown (C)	\$40,557,617	\$42,813,593	\$44,946,675	\$47,202,727
1253	Campbelltown (C)	\$37,327,874	\$39,404,200	\$41,367,417	\$43,443,811
1254	Campbelltown (C)	\$52,793,290	\$55,729,864	\$58,506,467	\$61,443,139
1259	Campbelltown (C)	\$36,772,289	\$38,817,710	\$40,751,707	\$42,797,196
1260	Campbelltown (C)	\$35,542,626	\$37,519,649	\$39,388,972	\$41,366,061
1263	Campbelltown (C)	\$58,261,730	\$61,502,480	\$64,566,689	\$67,807,547
1267	Campbelltown (C)	\$50,613,021	\$53,428,320	\$56,090,253	\$58,905,646
1413	Camden (A)	\$4,961,766	\$15,485,035	\$51,179,255	\$93,827,480
1409	Camden (A)	\$3,865,462	\$7,834,403	\$44,978,087	\$88,593,460
1418	Camden (A)	\$2,319,277	\$10,587,552	\$20,956,578	\$26,200,697
1354	Camden (A)	\$807,287	\$852,191	\$894,650	\$939,556
1269	Campbelltown (C)	\$0	\$39,261,680	\$85,663,796	\$108,672,670
1406	Camden (A)	\$3,956,152	\$8,475,019	\$51,087,240	\$101,118,199
1407	Camden (A)	\$3,249,962	\$6,899,238	\$41,268,419	\$81,622,199
1408	Camden (A)	\$2,559,531	\$4,933,432	\$26,964,814	\$52,838,156
1411	Camden (A)	\$1,931,651	\$8,172,456	\$25,039,709	\$40,664,251
1410	Camden (A)	\$1,923,387	\$7,653,800	\$23,125,848	\$37,519,326
1412	Camden (A)	\$1,877,864	\$8,219,352	\$30,183,186	\$56,446,333
1415	Camden (A)	\$2,341,288	\$11,267,045	\$41,768,475	\$75,433,585
1414	Camden (A)	\$1,612,349	\$6,715,609	\$25,520,657	\$47,743,829
1416	Camden (A)	\$4,498,055	\$13,421,025	\$43,956,475	\$80,451,241
1204	Liverpool (C)	\$9,924,483	\$20,673,973	\$48,364,508	\$81,214,864
1205	Liverpool (C)	\$6,756,409	\$17,997,722	\$47,168,114	\$80,830,585
1207	Liverpool (C)	\$3,746,079	\$3,954,451	\$4,151,471	\$4,359,850
1272	Campbelltown (C)	\$45,494	\$48,024	\$50,417	\$52,947
1210	Liverpool (C)	\$7,998,723	\$25,073,765	\$44,243,490	\$46,464,246
1209	Liverpool (C)	\$12,959,448	\$43,916,890	\$78,687,643	\$82,637,288
1211	Liverpool (C)	\$5,455,832	\$20,877,600	\$38,209,126	\$40,126,994

Appendix C – Metropolitan Plan for Sydney 2036 centre type hierarchy

Classification	Characteristics
Regional City	<p>The important role of Regional Cities is a core consideration of the Metropolitan Plan in creating a series of connected cities, whereby everyone in the Sydney Metropolitan Area will be within 30 minutes travel by public transport to a Regional City (or Global Sydney) in the long term. The State Government has a strong strategic interest in the success of Regional Cities as key structuring elements for Sydney and as the capitals of their regions.</p> <p>Criteria:</p> <ul style="list-style-type: none"> • Contains a full range of business, government, health, retail, cultural, entertainment and recreational activities with good access to parklands. • Employment destination with core commercial areas to support employment growth. • Operates as 'capitals' of their regions. • Has extended development areas beyond their city centres, which provide employment, services and residential opportunities that create stimulus for future development. • Located in large and rapidly growing catchment areas and are not close to each other. • Has a suitably sized catchment area to sustain services and employment - generating land uses within that City. • Typically employs at least 15,000 people, with the potential for growth to 30,000 jobs by 2036. • Typical housing capacity 35,000–50,000 dwellings. • Has a natural setting (such as a river) which provides a critical advantage in enhancing the city's amenity. • Transport criteria: regional transport catchment; a focal point for regional public transport services for commuters and multiple other trip types; express rail links with Global Sydney; linked with the motorway network to Global Sydney—with links with key gateways, Global Economic Corridor and other Regional Cities; focal point of regional arterial road network; high standard of freight access as a key node in the Sydney freight network; Demonstrated capacity within the commercial core to ensure adequate capacity for growth and change in office and retail space. • Demonstrated capacity within a mixed use zoning around the commercial core to accommodate a range of support services and activities, and residential development.
Major Centre	<p>The main shopping and business centre for the subregion, includes residential development and other land uses within approximately a 1km radius of the centre. Typically contains large retail centres. This cycle of ongoing improvement and growth needs to be understood, and seen as an opportunity to achieve better design outcomes for the retail centre, and for the surrounding area and its streets. The State Government has a strategic interest in the success of Major Centres as key structuring elements for Sydney and as focal points for subregional services.</p> <p>Criteria:</p> <ul style="list-style-type: none"> • Key structuring element for growth in subregions, representing significant employment destinations as well as being active centres with higher density residential development. • The major shopping, business and service centre for the surrounding area, usually with a full scale shopping mall, council offices, taller office and residential buildings, central community

Classification	Characteristics
	<p>facilities, a civic square, cinemas, sporting facilities and significant parklands.</p> <ul style="list-style-type: none"> • The focus for major institutions, principally serving immediate subregional residential populations on the fixed rail network. • A minimum of 8,000 jobs, with the potential for 12,000 jobs by 2036. Typically has capacity for 9,000 – 28,000 dwellings. • Can be divided into established, planned and potential centres. • Transport criteria: Transport catchment: sub regional; linked to the metropolitan rail network directly or very high volume trunk bus ways; focal point as a destination and origin for subregional public transport services (typically bus); focal point of subregional arterial and collector road network; freight access links with Sydney freight network. • Should retain a commercial core in cases where targeted growth for commercial development is at risk of not being accommodated in the centre. • Mixed uses should be located around the commercial core, and in some centres this may be a significant proportion of the centre. • Residential development in the mixed use area can form an important element in revitalising the centre and provide for more housing choice.
Town Centre	<p>Large group of shops and services, with a mix of uses and good links with the surrounding neighbourhood. Links a number of adjacent communities to a central activity and functions as a community gathering point.</p> <p>Criteria:</p> <ul style="list-style-type: none"> • Comprise more than 50 retail premises and services, generally with supermarkets, sometimes a shopping mall, a variety of specialist shops, restaurants, schools, community facilities such as a local library, and a medical centre. • Tend to be a residential origin location, rather than an employment destination. Contain medium and high density housing, typically containing around 4,500–9,500 dwellings within the walking catchment of the centre. • Are serviced by heavy rail and/or strategic bus and local bus networks, and some have ferry services. • Ideal elements are a town square, a main street, sports facilities and reasonable access to parkland.
Village Centre	<p>A Village is a group of shops and services for daily shopping, with a mix of uses and good links with the surrounding neighbourhood.</p> <p>Criteria:</p> <ul style="list-style-type: none"> • Comprise retail premises and services for daily shopping, such as supermarkets, butchers, banks, hairdressers, cafes, restaurants, and take away food shops, as well as child care centres, schools and other compatible activities in the immediate vicinity. • Typically contain up to 5,500 dwellings within the walking catchment of the centre and contain medium density housing. • Are serviced by strategic bus and local bus networks as a minimum.
Neighbourhood Centre	Linked to a small scale mixed use activity zone to encourage local community integration. It is a

Classification	Characteristics
	<p>small group of shops, typically focused on a bus stop.</p> <p>Criteria:</p> <ul style="list-style-type: none">• Comprise a few shops and services, such as a corner shop, petrol station/convenience store, café and newsagency.• Typically contain up to 1,000 dwellings within the walking catchment of the centre, including some medium density housing such as townhouses and villas.• May have childcare centres, schools and other compatible activities located close together.• Are serviced by local and/or strategic bus networks.

Source: Based on Department of Planning, 2010

Appendix D – SGS responses to key issues in submissions

A number of key comments, in relation to the recommendations in this report, have been raised in the submission to DP&I East Leppington Precinct Plan. SGS responses to these comments are described in the table below.

Key issues raised in submission	SGS responses
<p><u>Issue 2.1.26</u></p> <p>The Employment and Retail Study dated June 2012 prepared by SGS Economic and Planning ("SGS") as part of the Precinct Planning process identified the need of 15,000m² of retail floor area to be provided within the main local centre. The exhibited SEPP Note and DCPs state that this 15,000m² should be restricted by gross floor area. The report prepared by SGS continually refers to retail floor area when considering maximum floor areas. Additionally, retail and employment studies are generally prepared considering gross lettable area ('GLA'). Therefore the maximum floor area to be restricted under the planning controls should only relate to GLA or leasable retail floor area. Any reference to gross floor areas and maximum floor areas outside the retail premises definition should be removed from the future planning controls.</p>	<p>It should be noted that the retail floor area referred in the SGS report is equivalent to the Gross Leasable Area (GLA). The GLA is defined as the total floor area designed for tenant occupancy and exclusive use. It includes leasable area of all tenants located at a centre, whether occupied or not. The GLA includes storage, administrative and other ancillary areas that come within the walls of the tenant's floorspace but excludes separate storage areas.</p> <p>However, it should be noted that the term GLA is not used in the SEPP, whilst the term Gross Floor Area (GFA) is defined. Therefore, GFA is the appropriate measure to use in the development control.</p> <p>In response to the submission, SGS suggest that a retail GFA cap should be identified for both local and neighbourhood centres. In particular, the inclusion of GFA cap for the retail floorspace of local centre will provide a more effective control for the internal floor area of the future development and perhaps a disincentive to the large format big box centre development (as a proportion of GFA would be lost when converted to GLA).</p> <p>Advice from LFA architects suggested that the GFA for the local centre would be approx. 10 percent higher than the proposed GLA in the SGS report. LFA advice also confirmed that the GFA for the neighbourhood centres would be the same as the GLA.</p> <p>As such, converting the GLA in the SGS report to GFA is considered appropriate and capping the retail floorspace of local centre at 16,500 square metres GFA.</p>
<p><u>Issue 2.1.27</u></p> <p>The Employment and Retail Study prepared by SGS identifies that three centres are to be provided within the</p>	<p>SGS does not recommend adding the neighbourhood centre floorspace proposed for the south eastern part of the precinct to the local centre. The reason is that the local</p>

Key issues raised in submission	SGS responses
<p>East Leppington Precinct to service the catchment appropriately. The report concludes that the large local centre should provide 15,000m², while two additional support neighbourhood centres of 2,500m² and 3,500m² are to be provided north and east of the main centre. The 3,500m² neighbourhood centre located east of the local centre has been deleted and not included within the Draft Plans. Consequently, the required floor area should be configured into the main local centre to ensure the necessary retail opportunities are available to serve the local community. In this regard, the SEPP and DCP should allow for a maximum floor area of 18,500m² GLA within the local centre; this would ensure the catchment is adequately serviced.</p>	<p>centre has a different role to the proposed neighbourhood centre, allocation of neighbourhood centre retail associated with the walkable catchment has already been allowed for as part of the local centre, and exceeding the retail floor space cap recommended for the local centre would undermine the economic viabilities of other similar or higher order centres as shown in the retail impact assessment of the SGS report.</p> <p>SGS would recommend the identification in the precinct plan of a neighbourhood centre in the south eastern part of the precinct, in association with the primary school site. This will be important in providing neighbourhood centre to support the residential land uses in the walkable catchment of this location.</p> <p>However, the outcome of the workshop with Councils and landowners did not support this small neighbourhood centre. Accordingly, the exhibited ILP did not propose a neighbourhood centre in this part of the precinct, but rather one to the north.</p>
<p><u>Issue 2.1.28</u></p> <p>The time restrictions on local floor space provisions provided under the East Leppington Schedule should be deleted. Although the Precinct Planning has provided forecasts for retail floor space demands, it is considered the timeframe restrictions on the local centre within the planning controls are inappropriately onerous. The development pattern and time schedule is too unpredictable at this early stage. The provision of retail floor area should be assessed solely on market demands and subject to ongoing retail justification as part of a DA submission.</p>	<p>The time restriction of the local centre development was based on the most up-to-date information about the development pattern and staging in East Leppington and surrounding precincts. Considering the possible variation in the staging of precinct development, it would be reasonable to remove the timing restriction on the local floor space provision, while the overall floor space cap should be still enforced.</p> <p>Please note that the time restriction for the local centre has been removed from the Executive Summary of this report.</p>
<p><u>Issue 2.1.30</u></p> <p>If the exhibited zoning for the neighbourhood centre within Liverpool LGA is modified to permit the development of a secondary centre then the development of this centre should be restricted until after the local centre has reached its planned GLA capacity. The development of a secondary centre outside the core area will be detrimental to developing the community identity and character of East Leppington. Any future neighbourhood centres should be similarly restricted until after the establishment of the</p>	<p>As shown in the demand analysis section of the report, the proposed floorspace within neighbourhood centres and local centre in the East Leppington precinct are both supportable by the available resident retail expenditures within and outside the precinct, although they may capture slightly different types of retail expenditures.</p> <p>The neighbourhood centre is likely to capture day-to day convenient shopping spend of the residents within its walkable catchment, while the local centre will tend to draw</p>

Key issues raised in submission	SGS responses
main local centre.	<p>expenditures outside the East Leppington precinct and capture the household goods, clothing and department store expenditures.</p> <p>Therefore, it is not recommended to restrict the neighbourhood centre development until the local centre has reached its planned GFA capacity.</p>
<p><u>Issue 2.1.32</u></p> <p>The East Leppington Employment and Retail Study prepared by SGS Dated June 2012 as part of the Precinct Planning has identified a possible need for urban support and light industrial land uses within the East Leppington Precinct. The Report has indicated that an approximate 0.50 hectare light industrial zone, if required, could be included within the Precinct Plan15. The inclusion of a zone such as IN2 Light Industrial zone is considered favourable in this instance given the release Precinct will need to be supported by such services whilst also ensuring some local employment opportunities are offered.</p> <p><u>Issue 2.1.33</u></p> <p>It is strongly recommended that the pocket of isolated R2 Low Density Residential zoned land on the corner of St Andrews Road and Camden Valley Way be alternately zoned to accommodate these light industrial / commercial essential services.</p>	<p>The primary role of proposed local light industrial floor space is to service the local needs of the residents within the precinct. Likely uses may include car/tyre repairs and equipment hires.</p> <p>Given the suggested site on the corner of St Andrews Road and Camden Valley Way is relatively isolated on the edge of the precinct and from centres, it is not recommended using this site for the local light uses. Instead, it is proposed that if the local light industrial floor space is provided in the precinct, that it be incorporated as part of the neighbourhood centre on the north, as the proposed site (the current service station approval) for this centre will have direct access to the Camden Valley Way and located close to the local residents.</p> <p>The IN2 zone (if included in the LEP for the local light uses) should also prohibit any large format retail and bulky goods development, as they would directly compete with the in-centre retail development and undermine their viabilities.</p>

