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**FINAL REPORT – EMPLOYMENT LAND STUDY
ORAN PARK AND TURNER ROAD PRECINCTS**

Prepared for

Growth Centres Commission

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Executive Summary

BACKGROUND

1. MacroPlan Australia has been engaged by the Growth Centres Commission (GCC) to undertake an employment land and retail floorspace study in respect to the proposed Oran Park town centre and Turner Road employment precinct in Sydney's South West Growth Centre.
2. The assessment provides an overview of the South West Sydney industrial land and retail floorspace market, and identifies industrial property trends and segments to assess the opportunity for the establishment of employment land development in Oran Park and Turner Road over the next 15 – 20 years.
3. The assessment provides advice on the likely timing, staging and release of retail floorspace and industrial floorspace subject to the:
 - Employment needs of residents
 - Market demand for the product
4. In practice what this means is that MacroPlan's advice on the release of employment land at Turner Road and retail floorspace at the Oran Park town centre, has been tested by the consideration of the employment needs of residents against the realities of market demand.
5. Unlike more established suburbs in Sydney, fringe areas of Sydney – including South West Sydney – do not supply enough jobs for their working populations. This is a constraint on sustainability as it forces residents to commute further for employment opportunities and retailing.
6. An opportunity therefore exists to address this imbalance in South West Sydney but this can only be done in the context of what the market is prepared to absorb. Market absorption of employment land and retail floorspace will be subject to:
 - Growth in the local and regional economies (i.e. the Camden municipality and South West Sydney)
 - Population growth in the precincts of the South West Growth Centre and in surrounding established suburbs
 - Changes in the demand for different employment land parcels and sizes over time
 - Providing employment land products that meet the needs of industry and that attract businesses that match the skills of residents.
7. The future growth in Sydney's population and labour force will require more jobs and more employment sites. There are projected to be up to 500,000 additional jobs in Sydney by 2031, 80,000 of which will be required in South West Sydney. According to estimates in the Sydney Metropolitan Strategy a further 7,500 hectares of employment land may be needed in addition to the current 15,000 hectares.

THE SOUTH WEST GROWTH SECTOR

8. In July 2006 the NSW Government gazetted the South West and North West Growth area structure plans with the associated promulgation of the Growth Centres State Environmental policy.
9. The South West Growth Centre is to accommodate approximately 118,000 dwellings across 18 precincts. Oran Park, Turner Road & Edmondson Park are the first precincts released for development by government.
10. The SEPP identified Liverpool and Camden as the primary major towns in the growth area, with the new regional town being Leppington. In terms of the policy of a hierarchy of centres, new town centres will include Oran Park, Austral, Catherine Fields and Rossmore. Each of the precincts may also include local “hubs” including a mix of community uses, local open space facilities or local convenient retail uses.
11. Major employment lands identified in the SEPP are Badgery’s Creek, Lowes Creek, Marylands, Kemp Creek, and Turner Road.
12. THE SW structure plan appearing in the SEPP was compiled using broader, high level studies as well as extensive consultation. In now preparing a detailed precinct plan, MacroPlan is required to produce advice on the ILP to either verify the structure plan or produce details and justification for the inclusion of amendments or further details to be included in the precinct plan of Oran Park and Turner Road.
13. Both Oran Park and Turner Road will fill strategically important roles for the early success of the South West Growth Centre. Along with Turner Road, Oran Park will lead the early supply of residential lots and provide a town centre that will have an important local function – particularly if the delivery of Leppington is delayed.
14. Leppington is the primary regional centre within the South West Growth Centre. It is scheduled to begin delivery from 2012, in line with the proposed rail extension at that time. However land supply around Leppington is highly fragmented and land co-ordination will therefore take time.

SOUTH WEST SYDNEY EMPLOYMENT LAND SUPPLY CONTEXT

15. In March 2007 the NSW government released the “Employment Lands of Sydney Action Plan” (ELDP). Among the five key sections identified by the government to address future employment land needs in Metropolitan Sydney is ‘Action2’ – ‘Release more Greenfield land to overcome a shortage of supply’.
16. The document specifically notes under this Action that:
 - To further ensure sufficient employment land in Western Sydney, The Department of Planning, the department of State and Regional Development and the Growth Centres Commission will investigate policy and planning options to accelerate the early development of employment lands in the South West and North West growth centres.
 - New Employment land totalling 2,000 hectares have been proposed in both the growth centres and Central Coast structure planning work, with a further 2,600 hectares of sites investigation.
 - Detailed planning will ensure a range of lot sizes to encourage diversity of economic activities for the growing residential population and workforce in the surrounding areas.

- As part of the ELDP the Department of Planning will also consider the designation of a Western Sydney Employment Lands Investigation Area in the area between the Western Sydney Employment Hub and Badgery's Creek to the North of Elizabeth Drive. The aim is to investigate medium-long term needs and integrate this into the development of both the Western Sydney Employment Hub and the South West growth centres.
17. MacroPlan has reviewed the volume of zoned industrial land that is currently in the South West Sydney market, including vacancy rates. This review assists our estimation of the relative importance of Turner Road as a future industrial land development.
 18. There is currently 2,346 hectares of industrial land in the municipalities of Camden, Campbelltown, Liverpool and Wollondilly. Of this land 470 hectares or nearly 20% is vacant.
 19. The following points can be made from the analysis in the report:
 - Smeaton Grange and Moorebank are the two largest nodes in terms of available land
 - Land in Campbelltown has the lowest vacancy rates of the municipalities assessed
 - Wollondilly offers longer term opportunities in Maldon
 - Vacant sites are not evenly distributed throughout South West Sydney and are tightly held across limited locations and parcel sizes.
 20. Strong levels of supply are important as they limit price increases and maintain different product types (which are important for encouraging a mix of industry and job opportunities). If there are an insufficient number of land owners, competition is constrained and the local economy will suffer from reduced growth in employment opportunities.
 21. The supply equation in the South West points to a strong opportunity for Turner Road, particularly from 2008 onwards.

SOUTH WEST SYDNEY INDUSTRIAL LAND DEMAND

22. The overall macroeconomic drivers for industrial land are positive in Sydney. Imports and exports continue to grow strongly in line with the national economy. Containerised cargo continues to grow across Australian ports with the Port of Sydney experiencing consistent growth over 2006.
23. Port Botany is now reaching capacity and plans for its expansion are being settled. The expansion of the Port will lead to growth in the demand for warehousing and distribution functions throughout Sydney. Distribution centres and functions that serve them will continue to move to more affordable locations including the South West region of Sydney.
24. Annual absorption of industrial floorspace in the South West region of Sydney reached 125,800m² in 2005 and is expected to average 260,000m² over the coming two years as 73 new development projects are completed¹.
25. This level of absorption will equate to a demand for industrial land of around 50 hectares per year in the South West. Constraints in available land on the market from 2008 will require more new land releases at that time.

¹ CB Richard Ellis – Sydney Industrial Market View Report – June 2006

INDUSTRIAL LAND TRENDS AND LABOUR MARKET NEED

26. As part of the assessment of the appropriateness of the Turner Road masterplan, MacroPlan has assessed trends in industrial land products. We have also reviewed the need for industrial land derived from the expected resident labour force at Oran Park and Turner Road.
27. Product trends for industrial land and accompanying development are relevant in shaping Turner Road. The manufacturing sector is seeking low cost locations to maintain competitiveness. This means locations with low land cost, low transport costs and low labour costs. Industries requiring larger sites are therefore seeking locations away from the inner city areas to green field sites with good transport infrastructure and accessibility.
28. There has been a growing emphasis on logistics and distribution, with the supply chain from production to delivery effectively becoming shorter and more efficient. The role of manufacturing with warehousing may be combined whilst the retail stage may be reduced. Many functions (sales/ admin/ warehouse/ distribution) will increasingly take place under the one roof.
29. In addition there will continue to be a requirement for industrial land servicing the needs of local trades, including those involved in the building industry, and maintenance and repairs e.g. auto repairs.
30. According to the Growth Centres Commission development code highlighted in more detail in this report, as many jobs as possible should be provided locally to encourage employment self containment and self sufficiency. Employment self-sufficiency represents the proportion of the local employed workforce that could potentially find employment within the local area.
31. Using the benchmark yield of 40 blue collar jobs per hectare of industrial land across Sydney, the following table outlines the industrial land supply required for Turner Road. The target level of supply in this table achieves full employment self sufficiency for the expected Oran Park and Turner Road blue collar labour force.

Oran Park and Turner Road catchment							
	2008	2010	2012	2014	2016	2018	2023
Population	772	5,873	13,134	21,631	29,125	33,065	35,479
Employed (45% of total population)	347	2,643	5,910	9,734	13,106	14,879	15,966
Blue Collar (37% of total employed)	129	978	2,187	3,602	4,849	5,505	5,907
Industrial Land Required (self sufficiency) - 40 jobs / ha	3	24	55	90	121	138	148

32. The industrial land required for blue collar employment self sufficiency has been estimated at approximately 148 hectares by 2023 based on the labour force catchment of Turner Road and Oran Park. MacroPlan has not reviewed the need for employment land at Turner Road subject to the populations of Catherine Fields and Marylands and the expected supply of employment land in other precincts. This assessment will need to occur when more certainty around the timing of land release at these precincts exists.
33. **Around 100 hectares of employment land is appropriate across Oran Park and Turner Road** for the following reasons:
 - The industrial premises likely to establish across the two precincts will lead to an adequate mix of employment opportunities for blue collar workers residing in Turner Road and Oran Park and provide some local white collar employment (as part of ancillary office functions)

- Many of the blue collar workers at Oran Park and Turner Road will seek employment opportunities at Lowes Creek or Bringelly in the medium to longer term as those industrial nodes begin development. The land supply in these developments needs to be reviewed further.
- Higher yields for employment could be reached if some of the land is used for bulky good or industry service retailing however the Growth Centres Commission will need to consider how consistent this may be with any existing or proposed 'out of centre' retailing policies. As explained below bulky goods at the Turner Road Precinct would be likely to compete with the Oran Park Town Centre.

IMPLICATIONS FOR TURNER ROAD INDICATIVE LAYOUT PLAN

34. A supply of 85 hectares of employment land at Turner Road and 15 hectares on the Northern Road in the Oran Park Precinct will be adequate with regard to meeting the needs of the local labour force if:
 - Higher employment yield industries are attracted in industrial service sectors including panel beaters, machinists, small manufacturers, building suppliers etc
 - Lower employment yield industries such as warehousing and distribution is kept to a minimum (this can be achieved by restricting the supply of larger land parcels)
 - Provision for industries that include office and administrative components are included such as regional head office functions
35. Even though Turner Road does have access to Camden Valley Way and Narellan Road, it is not necessarily as suited to a distribution / warehousing node as some other industrial complexes in South West Sydney due to its lack of direct access to the F5. It could act as an industrial service employment node with some distribution functions for the southern half of the South West Growth Centre.
36. The supply of 85 hectares of employment land at Turner Road would yield around 3,000 blue collar jobs and an additional 400 to 500 white collar jobs. It could be delivered over 10 years without suffering constraints from market demand.
37. Turner Roads medium and longer term role as an employment node within the South West Growth Centre will be subject to:
 - The timing of the release of other employment nodes (in particular industrial land releases) in the South West Growth Centre including Lowes Creek and Bringelly
 - The industrial land products and land parcels released at competing / complementary industrial land releases in the South West Growth Centre
 - The timing of the Southern Freight line and the release of industrial land at Menangle Park and other developments outside the South West Growth Centre
38. While the supply of employment land at Turner Road will not lead to full employment self sufficiency at the Oran Park and Turner Road precincts, it is important to note that a wide range of employment opportunities will be made available at Lowes Creek and Bringelly for blue collar workers and at Leppington for white collar workers.
39. An opportunity may exist to supply a restricted supply of bulky goods on industrial land adjacent to Badgally Road and Camden Valley Way in the medium to longer term. This would have a limited impact on the Oran Park Town Centre under the following scenarios:

- Lots are released at Catherine Fields from 2015 at a rate of 200 to 300 per annum increasing the growth in the retail expenditure pool, and providing impetus for the sustainable supply of additional retail
 - Badgally Road is upgraded from 2012 - 2014 providing for a potentially wider retail catchment from Campbelltown
 - Marylands is also co-ordinated and released from 2015 at a rate of 400 to 500 lots per annum providing additional support for the Oran Park Town Centre, however this is unlikely given the supply of lots envisaged from Oran Park and the competition they would provide.
40. This scenario could only occur under a strong Sydney housing market. If the supply of bulky goods envisaged in the Turner Road indicative layout plan was pursued, the growth of retail floorspace at Oran Park Town Centre would be restricted. This would constrain sales of medium and high density dwellings at Oran Park and reduce opportunities for commercial floorspace there.

ORAN PARK TOWN CENTRE AND OTHER CENTRES

41. MacroPlan has assessed the projected population trade catchment for the purposes of calculating likely levels of sustainable retail floorspace for the Oran Park town centre and other centres within the Oran Park and Turner Road precincts. We have undertaken a review of the location of existing primary regional shopping centres and an assessment of Oran Park's potential role in the hierarchy of the outer south-western Sydney retail market.
42. The retail trade area has been split into the following two catchments:
- Primary Catchment – Oran Park
 - Secondary Catchment – Turner Road, Catherine Fields and Marylands
43. The results of the sustainable floorspace assessment for the Oran Park Trade Area, combined with potential levels of retention indicate that by 2036, the trade area categories will generate demand for 70,048 m² of retail floorspace across Oran Park and Turner Road. The retail floorspace sustainable at both precincts by type appears in the table below.

Development Potential (retention based on escape exp)	Forecast					
	2011	2016	2021	2026	2031	2036
Regional						
Supermarket	2,194	7,989	12,143	14,101	16,241	17,438
Catering (Restaurant and Café)	1,347	4,900	7,528	8,868	10,336	11,121
Clothing and Accessories	914	3,334	4,988	5,664	6,401	6,849
Furniture and Whitegoods	642	2,474	4,299	5,816	7,646	8,855
Electrical	180	695	1,207	1,633	2,147	2,486
Houseware and Softgoods	383	1,476	2,565	3,470	4,562	5,284
Hardware	836	3,221	5,597	7,571	9,954	11,529
Sports and Hobbies	222	799	1,348	1,776	2,248	2,453
Services	758	2,759	4,207	4,907	5,672	6,094
Newsagent and Chemist	494	1,803	2,669	2,984	3,327	3,551
Bottle-shop	228	833	1,228	1,366	1,516	1,616
Total	8,199	30,283	47,779	58,156	70,048	77,278

44. The analysis detailed in this report identifies the justification for a retail town centre of approximately 50,000 to 55,000m² in Oran Park (including associated bulky goods) at the end of the development timeframe for the retail catchment.

45. This is likely to incorporate two full line discount department stores, two supermarkets and approximately 100 specialty stores. This offering will provide extensive coverage of a broad range of retail needs and a wide range of shopper facilities and amenities.
46. With up to 50,000m² of floorspace the Oran Park town centre will have a significant function within the region as a service centre and employment generator.
47. Other retail centres in the Oran Park Precinct would include two 5,000m² neighbourhood centres west of the Northern Road in the Oran Park precinct. Both these centres should have caps of 1,500m² on supermarket size to limit competition with the town centre. The Turner Road precinct would supply a 10,000m² retail centre, with other retailing functions supplied at the Golf Course site.
48. In addition to the supply of a large hardware store (that would be consistent with industrial uses in the area) an opportunity may exist to supply some bulky goods adjacent to Badgally Road and Camden Valley Way at the Turner Road Precinct in the medium to longer term. This would have a limited impact on the Oran Park Town Centre under the following scenarios:
 - Lots are released at Catherine Fields from 2015 at a rate of around 300 per year or more adding to the retail expenditure pool and providing impetus for the sustainability supply of additional retail
 - Badgally Road is upgraded from 2012 - 2014 providing for a potentially wider retail catchment from Campbelltown
 - Marylands is also co-ordinated and released with a rapid lot supply of up to 500 lots per annum from 2015 providing additional support for the Oran Park Town Centre, however this is unlikely given the supply of lots envisaged from Oran Park and the competition they would provide.
49. The volume of lot supply highlighted in the scenario above would be required to minimise competition with the Oran Park Town Centre. However this level of lot supply (and associated populations) may be difficult to achieve at these volumes if the housing market was depressed at the time.
50. Likely employment yields at the Oran Park Town Centre are as follows:
 - Retail 45,000m² – supporting 1,800 jobs at 1 position per 25m²
 - Office and other administrative – supporting 250 jobs at 1 position per 20m²

STRATEGIC IMPLEMENTATION – ORAN PARK PRECINCT

51. The role of the Oran Park Town Centre in the development of the Southern half of the South West Growth Centre will be influenced by a number of factors. However, one of the primary drivers of its growth as a retail and commercial centre will be the timing of Leppington.
52. It is currently assumed that Leppington (and surrounding populations) will begin delivery between 2016 and 2018. However this timing is contingent upon the Growth Centres Commission achieving a co-ordinated release of land.
53. MacroPlan recommends that the Growth Centres Commission takes a flexible position on the role of the Oran Park town centre in the future recognising that a delay in the delivery of Leppington will require the Oran Park town centre to have a more significant role, particularly as a commercial centre.

54. Further, if Leppington is delayed and if dwellings are delivered from 2016 in Maryland and Catherine Fields, the Oran Park Town Centre will have a more important regional role as a town centre and will need to be developed in a way that ensures that local business activity is captured and not leaked to other more established regions of Sydney.

STRATEGIC IMPLEMENTATION – TURNER ROAD PRECINCT

55. In relation to the Turner Road Precinct, MacroPlan has noted that landowners in Turner Road have a preference for supplying bulky goods and retail showrooms on land adjacent to Badgally Road and Camden Valley Way. We have concerns with this land use strategy for the following reasons:
- It will reduce the supply of land for industrial purposes in South West Sydney of which there is a current and emerging future shortfall
 - It will impact on the timing of the supply of retail floorspace in and around the Oran Park Town Centre by competing with retail floorspace there
 - It would increase the volume of private vehicle trips for the purpose of shopping as there would be limited public transport options at Turner Road relative to the Oran Park Town Centre
56. The supply of bulky goods adjacent to the Oran Park Town Centre is a better option as it will increase retail trade and the absorption of floorspace there. This will make commercial and high density residential uses more attractive.

CONCLUSION

57. The primary aim of the South West Growth Centre is sustainable residential accommodation, which in turn requires higher residential densities than have traditionally been delivered in fringe areas of Sydney.
58. It is important for the Growth Centres Commission to recognise that the delivery of higher density living in the South West Growth Centre will be difficult to achieve in the context of the residential market. Apartments and townhouses in established centres within South West Sydney (including Liverpool and Campbelltown) are becoming difficult to sell.
59. Apartments sold in new development fronts such as Oran Park are unlikely to be offered at a discount to apartments in established town centres. It is therefore important to note that the supply of high density housing in new development fronts will need planning assistance in terms of the provision of job opportunities in the town centre and commercial floorspace.
60. Buyers of medium and high density dwellings will only trade off dwelling size if a wide range of services are available on their doorstep. This is the primary driver behind our advice to consolidate as many functions in the Oran Park Town Centre as possible including retail and commercial floorspace.
61. In conclusion, MacroPlan re-iterates that there are a number of unknown variables that are likely to influence the most appropriate land use strategy across both precincts in the future including:
- The timing of residential land co-ordination in other precincts (including the management of small land holder price expectations)
 - The timing of infrastructure supply and connections (including road and rail)

- Market acceptance of medium and high density dwellings in new development fronts
62. All of these factors have proven to be constraints on the delivery of residential land in Sydney in recent years and they are likely to continue to remain so.

1 Introduction

1.1 Project Scope

The report addresses the Economic and Employment Land Study brief and MacroPlan's proposal for this work by providing:

- Overview of the South West Sydney industrial land market
- Reviews the likely employment product appropriate at Turner Road and Oran Park
- Reviews the timing and product mix that will enhance employment self sufficiency and self containment in the South West Growth Centre
- Provides advice on sizing and timing for the Oran Park retail and commercial centre and employment lands at Turner Road

The report is set out as follows:

- Section 2 - reviews the project background, study area location and methodology.
- Section 3 – is an industrial land supply assessment for the South West Sydney region including a review of the latest available data on supply from MACROC by key industrial nodes in Camden, Campbelltown and Liverpool.
- Section 4 - provides a demand assessment for industrial land, with an assessment of recent consumption of industrial land in South West Sydney.
- Section 5 – provides an overview of industrial land trends and products in the national market and reviews the need for industrial land at Turner Road and Oran Park based on the expected resident labour force in the proposed precincts.
- Section 6 –reviews implications for the Turner Rd masterplan and compares labour market need with the reality of the industrial land market size. It assesses the potential strategic role for Turner Rd in the context of the South West Growth Centre and South West Sydney.
- Section 7 – provides a recommended sizing and configuration for the Oran Park Town Centre including estimates of supported employment.
- Section 8 – provides a conclusion to the report

This report supports the exhibition of the SEPP for the proposed Oran Park and Turner Road precinct plans and verifies the indicative layout plans for each precinct.

1.2 Limitations

This report is prepared on the instructions of the party to whom it is addressed and is thus not suitable for the use other than that by that party. As the report involves future forecasts, it can be affected by a number of unforeseen variables. It represents for the party to whom or which it is addressed the best estimates of MacroPlan Australia Pty Ltd, but MacroPlan Australia Pty Ltd can give no assurance that any forecasts will be achieved.

2 Background and methodology

This section of the report provides a background assessment of Sydney's employment need, particularly in South West Sydney, an overview of the Oran Park and Turner Road precincts and a discussion of MacroPlan's approach.

2.1 Background

2.1.1 Sydney's employment need

The future growth in Sydney's population and labour force will require more jobs and more employment sites. There are projected to be up to 500,000 additional jobs in Sydney by 2031, to a total of 2.5 million jobs.

According to estimates in the Sydney Metropolitan Strategy a further 7,500 hectares of employment land may be needed in addition to the current 15,000 hectares.

Almost half of all new jobs are expected to be located in Western Sydney; however the South West and South West Growth Centre will need to provide an adequate mix of employment in locations that are accessible to its future residents.

Maintaining Sydney's competitiveness and accommodating the growth in its future labour force will require support for existing businesses and more land for the establishment of new business. Over the next 25 years, around 15 million square metres of new industrial floor space may be required across the metropolitan area, according to NSW Planning.

A review of employment land zonings reveals that there is now almost 15,000 hectares of land in the Sydney Region zoned for industrial, employment and enterprise purposes. This excludes Specialised Centres such as Macquarie Park and Norwest.

Around 450,000 people are employed in these areas, giving an average overall employment density of 30 jobs per hectare. While employment densities are increasing in enterprises with a high share of office jobs, they can be as low as 10 jobs per hectare in areas of Western Sydney where some employment land is being developed for warehouses and distribution centres. These functions are still important to the trade function of a global city. If future employment densities averaged 20 jobs per hectare, 7,500 hectares more employment land would be required in Sydney to accommodate future needs²

2.1.2 Regional employment planning

The structure planning for the North West and South West growth centres identified a number of proposed employment land areas and potential areas for investigation.

The proposed sites highlighted in this structure planning process total about 2,000 hectares in area and areas for investigation total about 2,600 hectares. These areas provide an initial basis to meet the future need for additional employment land.

² Sydney Metropolitan Strategy – Employment Statement

The Metropolitan Strategy takes a subregional approach to planning for employment growth. The Strategy seeks to more closely integrate employment and population growth in subregions, particularly to ensure that job growth matches population growth in rapidly growing subregions.

This strategy is important as the co-location of jobs and population encourages residents to work near their place of residence and in turn reduces the call on infrastructure and the cost to the economy.

Table 1. Metro Strategy regional employment targets

TABLE A1 EMPLOYMENT TRENDS AND EMPLOYMENT CAPACITY TARGETS BY SUBREGION							
Subregion	1981	2004	2031 employment capacity target	2004-31 growth	2004-31 % growth	2004 job share	2031 job share
Sydney City	366,835	406,755	465,000	58,245	14.3%	19.9%	18.6%
East	94,076	137,365	155,000	17,635	12.8%	6.7%	6.2%
South	143,637	190,940	212,000	21,060	11.0%	9.3%	8.5%
Inner North	157,724	245,628	300,000	54,372	22.1%	12.0%	12.0%
North	65,850	82,453	90,500	8,047	9.8%	4.0%	3.6%
North East	57,666	87,237	103,500	16,263	18.6%	4.3%	4.1%
Inner West	96,159	102,090	112,000	9,910	9.7%	5.0%	4.5%
West Central	267,310	323,550	358,500	34,950	10.8%	15.8%	14.3%
North West	118,639	247,736	346,500	98,764	39.9%	12.1%	13.9%
South West	62,604	127,281	207,000	79,719	62.6%	6.2%	8.3%
Central Coast	45,008	94,952	150,000	55,048	58.0%	4.6%	6.0%
TOTAL	1,475,508	2,045,988	2,500,000	454,013	22.2%	100.0%	100.0%

Source: Sydney Metropolitan Strategy – Economy and Employment

Table 1 above reveals the expected employment growth in each region of Sydney and the capacity targets.

Employment in South West Sydney is estimated at 127,281 jobs in 2004. This is expected to increase by 79,719 or 63% over the period to 2031. As part of this increase the South West Growth Centre will need to supply a significant share of employment.

2.2 Locational overview

The South West Growth Centre is approximately 15,000 hectares in area and has been divided into 18 precincts which will contain about 118,000 new homes over the coming years. Oran Park and Turner Road are both included in these precincts.

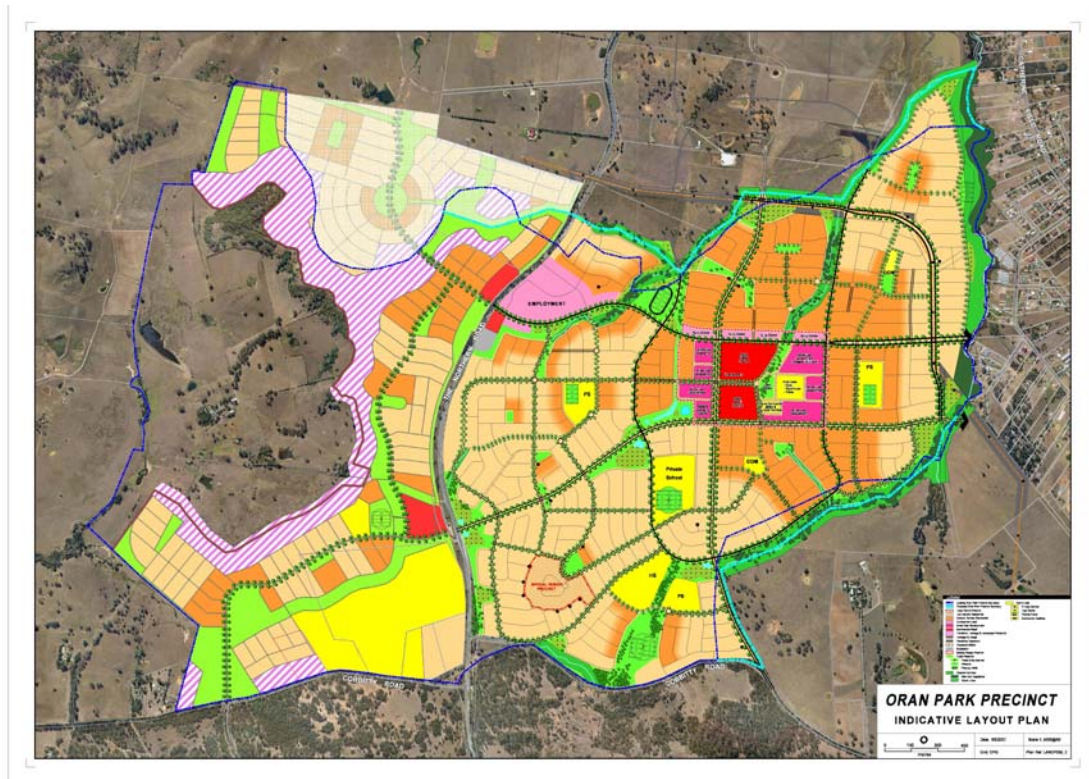
2.2.1 Oran Park

Oran Park is in the Camden local government area. The South West Structure Plan defines Oran Park as one of the 16 precincts in the South West Growth Centre. Surrounding the centralised town centre will be six to seven neighbourhood centres, with 8,000 dwellings accommodating a population of around 23,000.

Oran Park town centre would be located on a new north-south boulevard which provides a direct link to other precincts in the west of the Growth Centre. From the South, Oran Park will have direct access to The Northern Road and Camden Valley Way, two of the primary arterial roads in the region.

Oran Park will include a town centre with around 50,000m² of retail floorspace (including 10,000m² of bulky goods adjacent to the town centre). Around 5,000m² of office would also be provided. It is split by the Northern Rd with higher dwelling densities envisaged around the town centre and lower densities to the west of Northern Rd. Two additional neighbourhood shopping centres are envisaged for the communities located west of the Northern Road.

Figure 1. Oran Park masterplan



Source: Inspire

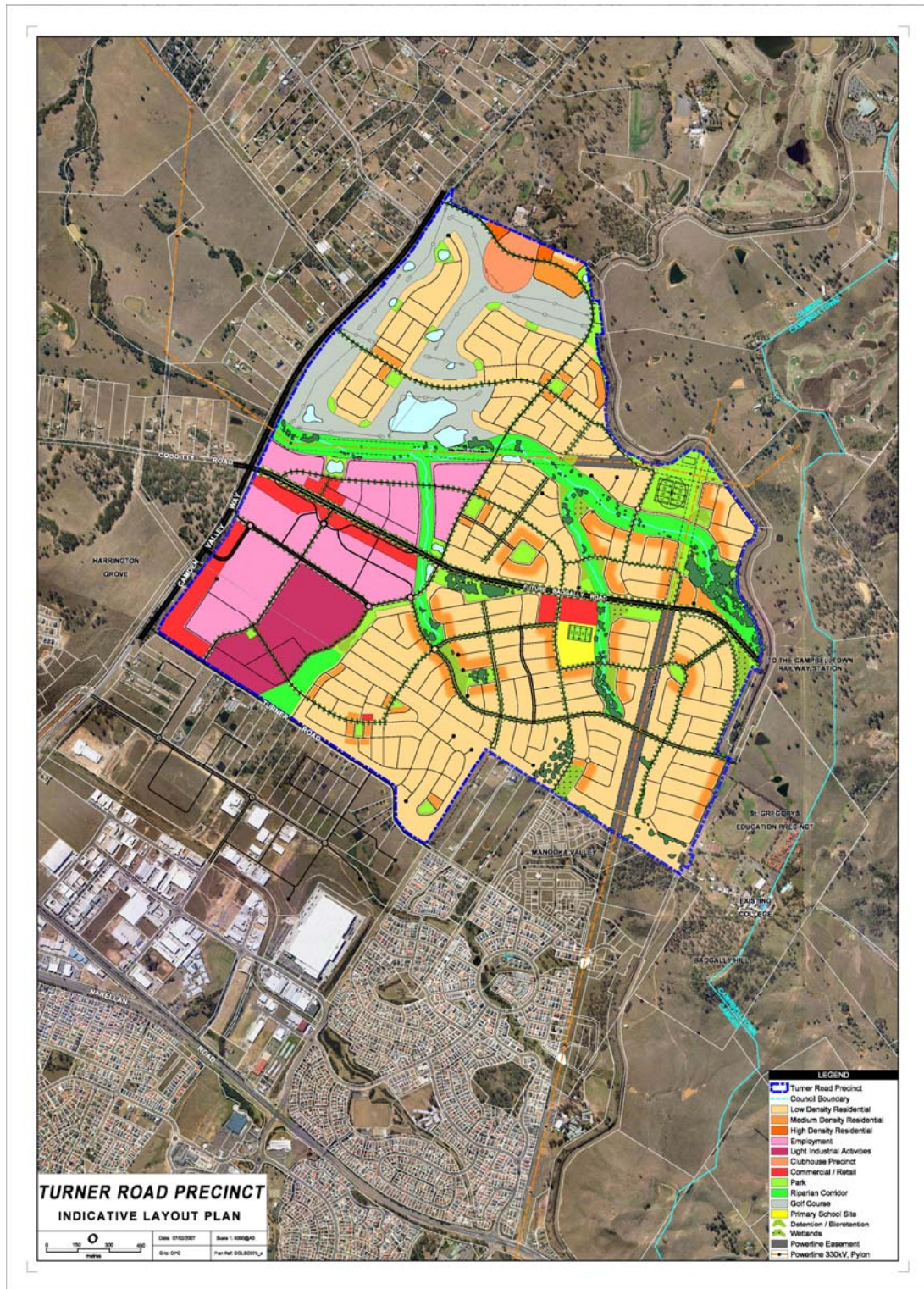
An employment land opportunity has been highlighted at the north of the Oran Park Precinct fronting the Northern Road. This 15 hectare site could be used as a bulky goods / service centre however the land uses on this employment area must be compatible and support the growth of the town centre. The supply of a large volume of bulky goods at this site early in the development phase of Oran Park would influence the growth of the town centre.

2.2.2 Turner Road Precinct

The Turner Rd Precinct is the most strategically located precinct in the South West Growth Centre with regard to the provision of a regionally significant employment land node. The precinct is located south of Camden Valley Way and east of Turner Road, adjacent to the Smeaton Grange industrial area. The Turner Road precinct will include around 85 hectares of employment land as well as a retail centre.

The precinct will act as a supplier of job opportunities for residents at Oran Park and Turner Road but also for residents at Marylands and Catherine Fields. The indicative layout plan for the precinct layout is depicted below.

Figure 2. Turner Road Precinct



Source: Inspire

2.2.3 The strategic location of both precincts

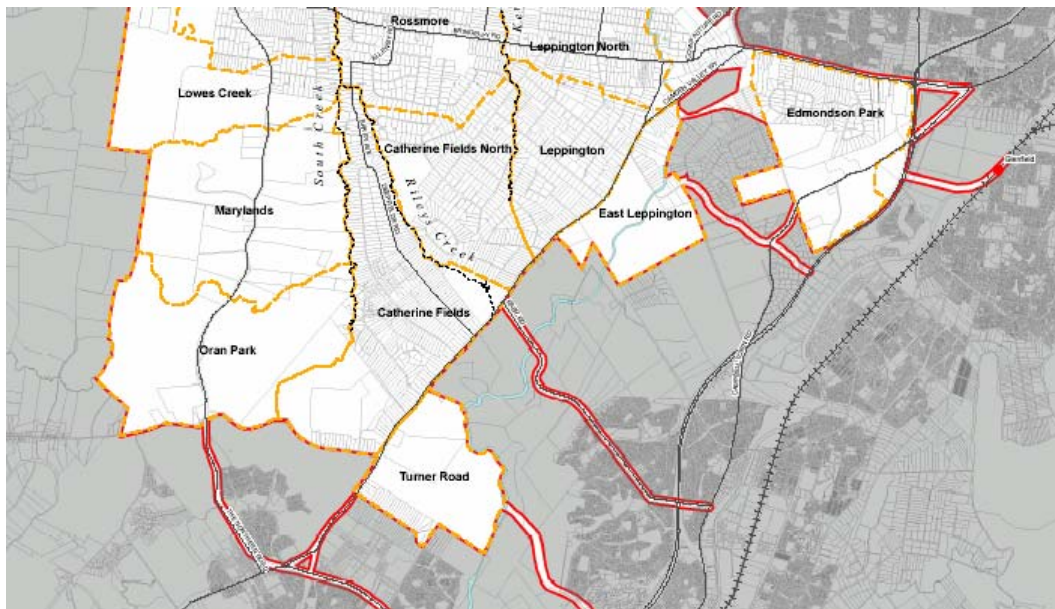
Both Oran Park and Turner Road precincts will fill strategically important roles that will influence the early success of the South West Growth Centre.

Oran Park will lead the early supply of residential lots and provide a town centre that will have an important local function – particularly if the delivery of Leppington is delayed.

The Leppington town centre is scheduled to begin delivery from 2012, in line with the proposed rail extension at that time. However land supply around Leppington is highly fragmented and land co-ordination and development could therefore take longer than expected. It is possible that the delivery of the first stage of the Leppington town centre could occur between 2015 and 2020 which will mean that Oran Park residents may need to rely on their own town centre for a wider range of goods and services in the short to medium term.

As discussed above, Turner Road will have an important function of satisfying the employment demands of residents throughout surrounding precincts and the wider region. The required volume of employment land at Turner Rd will be highly dependent on the industry operating there. Transport and Distribution functions only yield around 20 jobs per hectare whereas smaller manufacturing and engineering service firms can yield up to 100 jobs per hectare. The parcels of land that are delivered at Turner Road including lot sizes and timing will influence industry mixes and employment yields, however the successful delivery will be subject to market demand.

Figure 3. Southern half of South West Growth Centre



Source: NSW Department of Planning

The Oran Park and Turner Rd precincts are depicted above. They have different characteristics due to their likely land use mix and locational advantages and disadvantages.

Firstly with regard to the Turner Road precinct, MacroPlan notes the following features:

- The precinct is well located to primary road infrastructure with direct access to Camden Valley Way and proposed access to the F5 freeway in the future

- It provides an opportunity to supply employment to its own residents and residents in Oran Park with industries that will match the skills of many new residents
- It also has the capacity to provide employment opportunities for residents in the Marylands and Catherine Fields precincts
- Turner Road will face competition from other employment land nodes, including Menangle Park, during its development cycle

In relation to Oran Park, MacroPlan notes that:

- It is one of the key parcels of unfragmented residential land for the South West Growth Centre and is crucial to the early delivery of lots
- It will be crucial to build local employment opportunities near Oran Park to encourage sustainable commuting behaviour wherever possible
- It will include a retail centre that will function as a service centre for residents in Turner Road, Catherine Fields and Marylands.
- It will be important for the Oran Park Town Centre to complement rather than compete against the existing Camden town centre and Narellan.

2.3 Methodology

The approach to this project has involved three separate assessments including:

- Assessment of the need for employment land at Turner Road and Oran Park subject to the likely future labour force
- Assessment of the demand for employment land at Turner Road subject to the growth in South West Sydney's industrial sector
- Assessment of the demand for retail floorspace at the Oran Park town centre and at Turner Road subject to expected household growth in these and surrounding precincts

The assessment provides an overview of the South West Sydney industrial land and retail floor space market, and identifies industrial property trends and segments to assess the opportunity for the establishment of employment land development in Oran Park and Turner Road over the next 15 – 20 years.

The assessment provides advice on the likely timing, staging, size and release of employment land and industrial floorspace subject to:

- Employment needs of residents
- Market demand for the product

In practice what this means is that MacroPlan's advice on the release of employment land at Turner Road and retail and office floorspace and employment land at Oran Park, has been tested by the consideration of the employment needs of residents against the realities of market demand.

2.3.1 Assessing the need for employment land

The need for employment land is subject to meeting the principles of:

- Employment self sufficiency whereby a region provides an adequate mix of jobs for its resident labour force

- Employment self containment whereby we review the proportion of the labour force from within a region and from outside a region who may work in that region

Employment land is calculated subject to:

- the number of households,
- expected labour force participation,
- the skills of the labour force,
- the industries the labour will work in
- the number of business floorspace that will be required on average for each job
- the employment that will yield this floorspace by industry

2.3.2 Assessing the market demand for employment land

While a calculation of the volume of land or floorspace is important, the expected market size for employment land and the growth in industry needs to be reviewed. Market growth provides assistance when we provide advice on timing and staging of land release.

Therefore the assessment of timing and supply of employment land at the Turner Rd and Oran Park precincts has been calculated based on demand drivers including:

- Historical take up of employment land across South West Sydney
- Growth in employment in total and by industry across South West Sydney
- Longer term expectations of industry growth in Sydney and in the region
- The movement of business from regions closer to Sydney's CBD to fringe areas like the South West Growth Centre due to land prices

These demand drivers are then compared to expectations of competing supply in and around the precincts that we have assessed.

2.3.3 Calculating demand for the Oran Park Town Centre

The calculation of the demand for floorspace at Oran Park Town Centre has been undertaken subject to the expected expenditure levels of the town centres catchment. Details of the methodology appear in section 7 of this report.

MacroPlan has assumed that the Oran Park precinct will act as a primary catchment, and that households in Turner Road, Marylands and Catherine Fields will act as secondary catchments with significant expenditure leakages to other retail centres.

Details on our assumptions around the timing of household formation, sustainable retail floorspace and the expenditure catchment are including in part 7 of this report.

The expected employment in the retail and commercial centre is also calculated in part 7 of this report.

2.4 Growth Centres Commission Development Code

The Growth Centres Commission Development Code provides the basis for the planning and design of the Precincts, and in this case, the Oran Park and Tuner Road Precincts. The Development Code (the “Code”) provides a link to the Growth Centres SEPP and Structure Plan by ensuring good design principles in the planning system and layout.

The Code acknowledges:-

- that employment opportunities play a key role in the creation of viable, sustainable and prosperous communities,
- employment strategies should promote the availability of jobs locally and in the region thus facilitating self containment,
- employment types can be grouped into retail centres, industrial/employment lands and mixed uses,
- communities should have easy access to a range of shops, recreational facilities and services, and these can form focal points in the new precincts,
- that retail centres have a distinct hierarchy, namely from major towns with major retail outlets and specialist shops, to village centres with supermarkets and local shops.

For this reason, the economic assessment and strategy for Oran Park and Turner Road Precinct has taken into consideration, and undertaken a brief analysis against the objectives of the Development Code.

The Economic Strategy for Oran Park and Turner Road require around 100 hectares of employment lands (namely, or including industrial and bulky goods) located on major routes and highly visual and suitable lands. The employment lands and economic opportunities are as a result of population growth, employment creation for the local and regional market and anticipated market demand. The hierarchy of centres in these precinct plans includes Oran Park as a major town centre (with a capacity of 50 000m²) within the subregion, with supporting local neighbourhood centres that support the principles of the Development Code. The location and degree of local neighbourhood with retail and employment opportunities will rely on population catchments and market demand.

The Code provides guidelines for the location and extent of employment lands, such as taking into account riparian corridors, informed by contaminated lands (if necessary) or aspects such as land capability. The location of employment land is also dependant on the topography of the land, visual catchment and good access. In particular the Code outlines that mixed use town centres, like Oran Park, should be located at major intersections to maximise accessibility and retail exposure. The Code has an objective of “creating centres and neighbourhoods which are readily able to accommodate a broad range of employment opportunities on an ongoing adaptive basis”. The Oran Park and Turner Road precincts have taken these guidelines into account and are consistent with them.

The economic strategy for the Oran Park and Turner Road Precincts has taken the “locational” guidelines of the Code into consideration. Although there are guidelines for lot layout, street layout/block sizes for mixed use town centres, the Code does not provide detailed guidelines for the layout of employment lands; except to indicate that employment lands should be “able to accommodate a wide array of employment opportunities”.

The Code provides broad structural and principle guidelines for employment and mixed use centres, however further detailed design guidelines will be required to capture and create the character and environment for the precincts. In the town centres and neighbourhood centres detailed guidelines may be encouraged to attract investment, however a balance in design is required to allow for flexibility and growth over time. Further detailed guidelines for industrial and employment lands may be considered depending on the market and character being created.

The Code acknowledges the importance of the principles for mixed use co-location, whether commercial and retail or bulky good and retail. In mixed use town centres it is important to provide public transport within walking distance.

The objective of the Code to provide for flexibility to allow the centres and employment lands to develop over time and in stages, is important. Employment opportunities in Oran Park and Turner Road Precincts require staging of the floor area of retail in association with the population growth and residential market demand. Employment lands will also require to be staged to accommodate the growth over a 10 to 15 year period.

To encourage economic growth of the region and to enable a high degree of self containment and regional containment, the employment lands and mixed use retail centres need to have a flexible zoning. This is key to enable some interim uses to be accommodated while the region is developing, and within the medium term enable change of uses to accommodate the market demand. Within the Oran Park and Turner Road Precinct, the Oran Park town centre at the early stages will provide a catalyst, but also enable local needs to be met, while Turner Road employment land will enable employment opportunities and generation.

In conclusion, the Code provides initial guidelines to ensure the hierarchy of centres and location of employment lands and town centres. Further design details could be considered in the Precinct Plans provided that the employment land and town centre have flexibility to grow and develop.

3 South West Sydney Supply Context

The Department of Planning currently does not report on the volume of industrial land that is zoned in South West Sydney on a regular basis. However a number of reports have been prepared in recent times on volumes of supply and levels of vacancy.

The South West region of Sydney has grown in importance to Sydney's industrial land market over recent years. Minto and Moorebank already account for 5.3% of Sydney's industrial floorspace. Two key industrial estates, the Keylink Industrial Centre and Moorebank Business Pak both have the potential to add over 200,000m² of warehousing floorspace to the market in the next few years.

3.1 Current supply in the South West

The major existing industrial nodes are reviewed in below. This review of industrial land supply below was completed in 2006 by MACROC using updated estimates from a Hill PDA report prepared in 2003.

Total market size across Camden, Liverpool, Campbelltown and Wollondilly is 2,346 hectares.

3.1.1 Liverpool

Industrial zoned land in Liverpool is distributed across six primary nodes:

- Chipping Norton – 97 hectares
- Cross Roads – 46 hectares
- Moorebank – 196 hectares
- Orange Grove – 40.5 hectares
- Prestons – 224 hectares
- Sappho Road / Warwick Farm – 40 hectares

3.1.2 Camden

Industrial zoned land in Camden is distributed across three primary nodes:

- Camden – 2.85 hectares
- Narellan – 40.94 hectares
- Smeaton Grange – 230.2 hectares

3.1.3 Campbelltown

Industrial zoned land in Campbelltown is distributed across three primary nodes:

- Campbelltown – 160.44 hectares
- Ingleburn – 735.8 hectares
- Minto – 318.8 hectares

3.1.4 Wollondilly

Industrial zoned land in Camden is distributed across three primary nodes:

- Appin – 11 hectares
- Bargo – 2 hectares
- Maldon – 104 hectares
- Picton – 32 hectares
- Warragamba / Silverdale – 64 hectares

3.2 Available supply in existing nodes

Given the total volume of industrial land it is important to review available supply – particularly unconstrained supply as large proportions of zoned industrial land are often unavailable to the market.

The table below provides an overview of available supply.

Table 2. Zoned industrial land and vacant land by key nodes – South West Sydney

	Total land	Vacant land	Vacant as share of site	Vacant as share of total vacant
Camden	273.99	93.86	34.3%	
- Camden	2.85	0.19	6.7%	0.2%
- Narellan	40.94	9.56	23.4%	10.2%
- Smeaton Grange	230.2	84.11	36.5%	89.6%
Campbelltown	1215.02	112.21	9.2%	
- Campbelltown	160.44	29.86	18.6%	26.6%
- Ingleburn	735.79	45.6	6.2%	40.6%
- Minto	318.79	36.75	11.5%	32.8%
Liverpool	644.2	182.61	28.3%	
- Chipping Norton	97.3	3.62	3.7%	2.0%
- Cross Roads	46.1	23.68	51.4%	13.0%
- Moorebank	196	85.34	43.5%	46.7%
- Orange Grove	40.5	5.62	13.9%	3.1%
- Prestons	224	64.35	28.7%	35.2%
- Sappho Road / Warwick Farm	40.3	0	0.0%	0.0%
Wollondilly	213	81.82	38.4%	
- Appin	11	3.1	28.2%	3.8%
- Bargo	2	0.1	5.0%	0.1%
- Maldon	104	55.4	53.3%	67.7%
- Picton	32	4.52	14.1%	5.5%
- Warragamba / Silverdale	64	18.7	29.2%	22.9%

Source: MACROC

The following points can be made from the analysis in the table above:

- Smeaton Grange and Moorebank are the two largest nodes in terms of available land
- Land in Campbelltown has the lowest vacancy rates of the municipalities assessed
- Wollondilly offers longer term opportunities in Maldon

- Vacant sites are not evenly distributed throughout South West Sydney and are tightly held across limited locations and parcel sizes.

Strong levels of supply are important as they limit price increases and maintain different product types (which are important for encouraging a mix of industry and job opportunities). If there are an insufficient number of land owners, competition is constrained and the local economy will suffer from reduced growth in employment opportunities.

The supply equation in the South West points to a strong opportunity for Turner Road, particularly from 2008 onwards.

4 South West Sydney Industrial Land Demand

4.1 Market overview

The overall macroeconomic drivers for industrial land are positive in Sydney.

Imports and exports continue to grow strongly in line with the national economy. Containerised cargo continues to grow across Australian ports with the Port of Sydney experiencing consistent growth over 2006.

Port Botany is now reaching capacity and plans for its expansion are being settled. The expansion of the Port will lead to growth in the demand for warehousing and distribution functions throughout Sydney. Distribution centres and functions that serve them will continue to move to more affordable locations including the South West region of Sydney.

Land values in the South West of Sydney for sites less than 0.25 hectares continue to average around \$300 to \$400 per m² which is cheaper than the Outer West of Sydney at between \$400 and \$500 per m². This will continue to drive the competitiveness of South West Sydney as a region to locate industrial business.

4.1.1 The NSW economy

The NSW economy has performed only modestly in 2005/06 relative to the national economy, weakened by moderate population growth and the constraint on consumer confidence from declining housing prices.

Access Economics expects that NSW industrial production will have increased by 2.3% in 2006 and 4.5% in 2007. Growth over the medium term in New South Wales is also expected to track at or above the national average over 2007 and 2008.

4.2 Annual Land absorption

Prospects for industrial land absorption in the South West of Sydney are predicted to be strong over coming years. The Westlink M7 has given firms operating in the South West more direct access to distribution networks. In addition the Southern Sydney Freight line should drive further growth in the region when it is built however there is uncertainty as to its timing.

Annual absorption of industrial floorspace in the South West region of Sydney reached 125,800m² in 2005 and is expected to average 260,000m² over the coming two years as 73 new development projects are completed³. This level of absorption will equate to a demand for industrial land of around 50 hectares per year. However constraints in available land on the market from 2008 will require new land releases at that time.

³ CB Richard Ellis – Sydney Industrial Market View Report – June 2006

5 Industrial Land Trends and Labour Market Need

This section provides an overview of the following:

- National trends and opportunities
- Industrial market segments
- Demand drivers for South West Sydney
- The best specification of industrial land at Turner Road given the likely labour force catchment.

5.1 National Trends and Opportunities

The global economy emphasises innovation and specialisation. Creating and transforming knowledge have emerged as the drivers, or keys, to competitiveness.

The drive to more efficient and low cost manufacturing has meant that industry is establishing new modes of production, with greater reliance on imported components, more automated manufacturing and a greater emphasis on establishing market niches.

The manufacturing sector is seeking low cost locations to maintain competitiveness. This means locations with low land cost, low transport costs and low labour costs. Industries requiring larger sites are therefore seeking locations away from the inner city areas to green field sites with good transport infrastructure and accessibility.

The increased reliance on imported components in the manufacturing sector has resulted in an increased focus on assembly and packaging processes with lower overall value add. Industrial property has enjoyed strong growth in line with economic growth over the past 5 years.

There has been a growing emphasis on logistics and distribution, with the supply chain from production to delivery effectively becoming shorter and more efficient. The role of manufacturing and warehousing may be combined with the retail function being reduced. Many functions (sales/ admin/ warehouse/ distribution) will increasingly take place under the one roof.

In addition there will continue to be a requirement for industrial land servicing the needs of local trades, including those involved in the building industry, and maintenance and repairs eg auto repairs.

5.2 Industry Segments

Five basic demand/ user segments have been identified in the industrial property market. These are identified below with an indication of the key features of these sectors.

- Heavy/Noxious/Offensive Industry (5 – 50 ha)
 - heavy industries e.g. Oil Refinery, aluminium smelter.
- Transport/Warehouse/Storage (2+ hectares)
 - Trend in manufacturing/ importing to outsourcing storage - distribution combined. Major transport routes emerging as transport and distribution hub.
- Manufacturing / Component Assembly

- Component assembly manufacturers vary from extensive land areas to less than 2 hectares.
- Light Industrial & Trade Park
 - In this sector, greatest demand is for smaller blocks – 500-1,000 m² ranging up to 1 ha for light industrial/ small local businesses e.g. engineering and mechanical workshops. Less attention is paid to aspects such as landscaping, signage and setbacks
- Service Business Park (SBP)/ Technology Park
 - SBP's attract a wide range of service providers and can include manufacturing and processing/ packaging/ distribution industries seeking a high amenity location as well as equipment hiring, places of worship, funeral directors and police and emergency services.
 - Technology Parks - similar block sizes, but high amenity values with high standards of landscaping and built form more akin to an office park.
 - Land parcel sizes 1000 – 2000 sq m (up to 5000 sq m).
- Specific Uses
 - Restricted Retail - large scale Homemaker Centres and Showrooms
 - Highway Uses - car, boat and truck sale yards
 - Recreation/Entertainment - indoor complexes e.g. tennis, squash, basketball/netball, indoor cricket stadiums & outdoor activities such as motor sports e.g. go carts

5.3 Drivers for South West Sydney

There are a number of emerging trends in employment and economic activity having direct and indirect impacts on urban structure. These impacts are particularly pronounced in the outer urban growth areas such as South West Sydney.

There are a number of push factors from the inner Sydney areas to outer areas which are influencing the fringe industrial market. This includes:

- Decline of traditional and major manufacturing
- High and increasing land values in inner Sydney
- Land taxes
- Opportunities for higher value redevelopment – for example commercial, residential and high technology industrial
- Land loss to infrastructure upgrades such as arterial road works

There are also a number of pull factors to the outer fringe of Sydney that are influencing the industrial market. These include:

- Access to blue collar workers who are generally living further way from the CBD
- Demand for service industries in new and growing urban areas
- Lower land values in outer regions
- Larger land size providing opportunities to plan for future expansion
- Attraction of new road works and major urban change
- Positive local government approaches to new industry

These trends have prompted the need for strategic employment sites to be identified and made more attractive for investment to create new and diverse opportunities in outer suburban areas, particularly those with good transport infrastructure.

5.4 The Need for Industrial Land – Labour Market Demand

This section assesses the future demand for employment of residents in the Oran Park and Turner Road precincts and converts this to an industrial land requirement to support high levels of employment self sufficiency.

MacroPlan has assessed a catchment including the likely labour force populations of the Oran Park and Turner Road precincts. In this draft report we have not considered the employment need of residents at Catherine Fields or Marylands as it is currently unclear whether these precincts will be offering their own employment generating land. The timing of the lot release at these precincts also needs to be agreed confirmed.

In the interim we have made the assumption that land would not be released at Catherine Fields and Marylands until around 2020. However for the purposes of assessing the demand for retail floorspace at the Oran Park town centre we have considered secondary demand from Catherine Fields and Marylands.

Employment self-sufficiency represents the proportion of the local employed workforce that could potentially find employment within the local area. For example, in an area containing 10,000 job opportunities and 20,000 employed residents, the local employment self-sufficiency of the area would be one in two or 50%.

The figure below reveals the calculation of the ratio.

Figure 4. Employment self sufficiency ratio

$$\text{Employment Self-sufficiency ratio} = \frac{\text{Local job stock}}{\text{Employed local workforce}}$$

Source: MacroPlan Australia

The precincts of Oran Park and Turner Road sit within the Camden Shire. MacroPlan has assessed them communities that are likely to have a labour force structure similar to the existing residents of Camden Shire.

5.4.1 Assessment assumptions

MacroPlan has made a number of assumptions in our assessment of the need for employment land. These assumptions are likely to be refined further prior to the completion of the final report:

- The Oran Park and Turner Road precincts will begin lot supply in 2008.
- Both the Oran Park and Turner Road precincts will supply lots at the rate of 500 per annum until all residential stages are built out.
- Lot supply at both precincts has been based on assumed population take up by Elton Consulting as part of their assessment.
- The blue collar component of the resident labour force is likely to average around 37% which will drive the relative need for local industry serving these trade related skills (this is based on census statistics for the region)

- Up to 50% of workers will work in the municipality of Camden and in addition, industrial land at Turner Road will provide much needed jobs for the labour force of surrounding municipalities including Campbelltown and Liverpool.

5.4.2 Population Projections

Population in the Oran Park and Turner Road catchment is projected to increase significantly between 2008 and 2023, from 5,873 in 2008 (as the first stages of lots are released) to 35,479 by 2023.

This population growth assumption is sourced from Elton Consulting and is used as a basis for examining the most appropriate timing for the release of industrial land at Turner Road.

Table 3. Oran Park and Turner Road catchment Population Projections

Oran Park and Turner Road catchment							
	2008	2010	2012	2014	2016	2018	2023
Population	772	5,873	13,134	21,631	29,125	33,065	35,479

Source: .MacroPlan Australia 2007

5.4.3 Projected Growth in Blue Collar Jobs

The significant increase in the catchments' population will result in an increased requirement for employment. By 2012, the number of Oran Park and Turner Road residents seeking employment is expected to be approximately 5,910. This equates to approximately 45% of the total resident population.

In order to project the labour force size and the need for employment up to 2023, the share of employment to the population has been assumed to remain constant at 45% over this period (this is based on census data for Camden at 2001). By 2023, there will be a labour force of approximately 15,966 workers in the catchment across all industries. Many of these workers will have a preference for working locally.

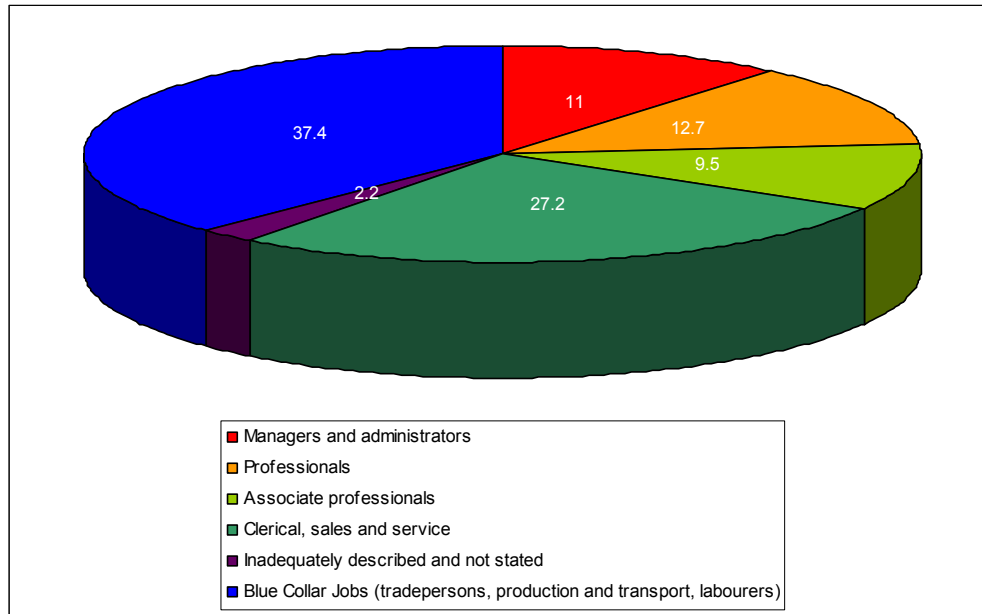
Table 4. Catchment Labour Force – 2001 - 2023

Oran Park and Turner Road catchment							
	2008	2010	2012	2014	2016	2018	2023
Population	772	5,873	13,134	21,631	29,125	33,065	35,479
Employed (45% of total population)	347	2,643	5,910	9,734	13,106	14,879	15,966

Source: .MacroPlan Australia (2007)

In 2001, 37% of the Camden labour force worked in blue collar jobs. For the purpose of this assessment, blue collar jobs have been defined as Tradespersons, workers in the Production and Transport sector and Labourers.

Figure 5. Occupations in South West Sydney



Source: ABS Census Populating and Housing; MacroPlan Australia (2006)

This allows us to forecast the number of Oran Park and Turner Road residents who will be in the blue collar labour force and therefore working on industrial premises or related industry. The number of residents in the blue collar labour force is likely to increase from 2,187 in 2012 to 5,907 in 2023.

Table 5. Blue Collar Employment

Oran Park and Turner Road catchment	2008	2010	2012	2014	2016	2018	2023
Population	772	5,873	13,134	21,631	29,125	33,065	35,479
Employed (45% of total population)	347	2,643	5,910	9,734	13,106	14,879	15,966
Blue Collar (37% of total employed)	129	978	2,187	3,602	4,849	5,505	5,907

Source: ABS Census Populating and Housing; MacroPlan Australia (2007)

5.4.4 The Self Sufficiency Requirement

This section assesses the likely industrial land supply required to support blue collar employment self sufficiency in the Oran Park and Turner Road catchment. Clearly not all of the blue collar labour force will want to or will be able to find employment near their place of residence. However the Sydney Metropolitan Strategy does aim to deliver adequate levels of employment opportunities co-located to new residential developments.

For the purpose of identifying the employment self sufficiency requirement, the ratio of workers in blue collar jobs relative to Sydney's total industrial land supply, is used as a benchmark to calculate the likely volume of blue collar jobs yielded per hectare of industrial land. This benchmark has been applied to the Oran Park and Turner Road catchment to determine how much employment land should be supplied to meet the needs of the expected resident labour force.

Australian Benchmarks

MacroPlan has reviewed national benchmarks for employment yields per hectare to obtain an overview of the likely need for employment land at Turner Road. Table 6 below, shows blue collar job yields per hectare (occupied and total) in five capital cities based on:

- Industrial land supply sourced from State Departments of Infrastructure and Savills research
- Employment by capital city sourced from ABS Labour Force Statistics 2004-05
- Blue collar share of employment sourced from the 2001 Census of Population and Housing
- Derived estimate blue collar jobs by capital city
- Derived estimate of blue collar jobs per occupied hectare and blue collar jobs per hectare (including vacant land).

Table 6. Blue Collar Jobs Per Hectare Benchmarks

	Occupied Industrial Land (ha)	Vacant Industrial Land (ha)	Total Industrial Land (ha)	Employed (2004-05)	Blue Collar Share (2001)	Blue Collar Jobs	Blue Collar Jobs Per Occupied Hectare	Blue Collar Jobs Per Hectare
Sydney	13,621	2,806	16,427	2,123,100	26%	544,156	33	40
Melbourne	17,325	5,207	22,532	1,822,300	28%	503,365	22	29
Brisbane	6,980	2,282	9,262	916,700	28%	259,534	28	37
Adelaide	9,000	1,800	10,800	537,800	27%	144,105	13	16
Perth	8,340	3,060	11,400	749,100	28%	212,574	19	25
Total	55,266	15,155	70,421	6,149,000		1,663,734	24	30

Source: MacroPlan Australia

The industrial land requirement ranges between 13 jobs/ha to 33 jobs/ha (based on occupied industrial land). Higher employment yields are likely to be due to a number of factors including:

- Mature market
- Industries with a high share of office jobs
- Integrated industry/business parks
- Technology parks

While employment densities are increasing in cities such as Sydney with a high share of office jobs, they are relatively low to as few as 10 jobs per hectare in areas of Western Sydney. Employment land in this region is being developed for warehouses and distribution centres which make up an important trade function of major cities.

The ratio of blue collar jobs to the hectares of industrial land varies across Australia and in regions of Sydney depending on industry mix in different industrial developments. **Across Sydney around 40 blue collar jobs are supplied per hectare of industrial land.**

This assessment only provides a general understanding of the self sufficiency requirement and is limited by:

- Not all blue collar jobs are in industrial areas
- Many industrial activities now have a higher office component which will increase the number of 'white collar' workers in industrial areas. This means that more jobs can be located in employment lands with existing and potential public transport access
- There will also be demand for blue collar employment in the South West Growth Centre from residents who live in established suburbs.

Despite these limitations, MacroPlan believe it provides a reasonable approximation of the employment self sufficiency requirement.

5.4.5 Converting the labour market to required supply

Using the benchmark of 40 blue collar jobs per hectare of industrial land (as highlighted above), the following table provides an indication of the potential industrial land supply required for Oran Park and Turner Road to achieve blue collar employment self sufficiency.

Table 7. Self Sufficiency - Supply Required

Oran Park and Turner Road catchment							
	2008	2010	2012	2014	2016	2018	2023
Population	772	5,873	13,134	21,631	29,125	33,065	35,479
Employed (45% of total population)	347	2,643	5,910	9,734	13,106	14,879	15,966
Blue Collar (37% of total employed)	129	978	2,187	3,602	4,849	5,505	5,907
Industrial Land Required (self sufficiency) - 40 jobs / ha	3	24	55	90	121	138	148

Source: MacroPlan Australia (2006)

Industrial land in the existing masterplans for Oran Park and Turner Road is around 100 hectares if the 15 hectare employment node on Oran Park on the Northern Rd is included.

The industrial land required for blue collar employment self sufficiency has been estimated at approximately 148ha by 2023. This equates to absorption of approximately 10 hectares per year if this full amount was supplied.

However a supply of 100 hectares in the Oran Park and Turner Road precincts would be adequate for the following reasons:

- Only around 50% of Oran Park and Turner Rd residents will work in the region and only around 30% or less will actually work in a business located at or associated directly with the industrial land nodes at Turner Road
- Many of the blue collar workers at Oran Park and Turner Road will seek employment opportunities at Lowes Creek or Bringelly in the medium to longer term as those industrial nodes begin development.

However as a cautionary note it is worth noting that the product mix in the early stages of development is likely to be lower employment yield uses such as warehousing and distribution. This means that the estimated employment yield of 40 jobs per hectare may not be achieved in the early years. The employment yield could be as low as 10 jobs per hectare if warehousing and transport industries are the first to take up land parcels.

This will increase the requirement for industrial land supply in the short term in other uses including industrial service centres, if employment self containment is to be maximised.

The likely supported employment at Turner Road with the supply of 85 hectares would be between 3,000 and 3,500 jobs at 40 jobs per hectare but lower if the mix of uses is more aligned to transport and distribution.

In conclusion MacroPlan notes that:

- The supply of employment land at Turner Road will not lead to full self sufficiency in employment for the Turner Rd and Oran Park precincts

- Full employment self sufficiency in fringe development areas is difficult to deliver in the early stages of a residential development due to a lack of labour supply across various skills and the need for industry clusters to form.
- The volume of employment land at Turner Road is adequate with regard to the market need and the development of a local economy.
- It will provide a wide mix of local employment opportunities for new residents
- An opportunity for an evolution of employment land uses toward more of a business park environment could lead to higher employment yields per hectare later in the development cycle
- The Lowes Creek, Bringelly and Leppington precincts will be the primary providers of employment opportunities for the South West Growth Centre labour force.

6 Implications for Turner Road Masterplan

6.1 Supply of Industrial Land

From MacroPlan's review of the potential for future development in the Turner Rd industrial estate, there appears to be a number of key timeframes.

In the early stages of the development of Oran Park and Turner Road residential communities it will be important for Turner Road to provide as much local employment opportunities as possible. This will assist in the establishment of Turner Road as a vibrant local economy and begin to entrench sustainable commuting behaviour at an early stage for local residents.

Turner Roads medium and longer term role as an employment node within the South West Growth Centre will be subject to:

- The timing of the release of other employment nodes (in particular industrial land releases) in the South West Growth Centre including Lowes Creek and Bringelly
- The industrial land products and land parcels released at competing / complementary industrial land releases in the South West Growth Centre
- The timing of the Southern Freight line and the release of industrial land at Menangle Park and other developments outside the South West Growth Centre

6.2 Timing

6.2.1 Market size

At this stage our recommended supply of industrial land at Turner Road has been framed around the needs of the resident labour force. However the timing and product mix will be subject to the size of the market and its ability to absorb land.

As confirmed in part 3 of this report the total size of the industrial land market in Campbelltown, Camden, Liverpool and Wollondilly equates to over 2,400 hectares. Vacant industrial land in this market equates to 470 hectares or nearly 20% of supply.

Estimates are that with no additional supply this vacant land could be fully absorbed within five to six years. The absorption of various parcels of industrial land and in particular lot sizes can be uneven. Smaller lots tend to be sold fairly quickly and larger lots take time to sell as they are only of interest to particular industry sectors.

A release of 85 hectares of industrial land at Turner Road Precinct (as indicated in the masterplan) would add equate to only just over 3 per cent of the South West Sydney market and increase the supply of vacant land by 17 per cent.

6.2.2 Regional employment targets

As another guide to timing it is important to note that the Metro Strategy has released an employment target for the period 2004 to 2031. Over this period up to 80,000 jobs are expected to be provided in South West Sydney or an average of nearly 3,000 per year. At least 1,000 per year will need to be in blue collar trade related sectors.

Further if we assumed that Turner Road may supply up to 15 per cent of this employment need for the South West region of Sydney over its development cycle, we could establish the following delivery time frame.

- A target of 150 to 200 jobs per annum at Turner Road
- Requiring around 5 hectares per year of land sold across a number of stages of 16 years.
- This could be accelerated to 8 years (or 10 hectares per year) if Turner Road was considered to have a more important role in the supply of local blue collar jobs.

6.3 Segmentation

From MacroPlan's review of the potential for future development in the industrial estate, there appears to be a number of key roles

- Local servicing (short term) including construction and manufacturing suppliers.
- Local and Regional distribution
- Major national and State level tenant
- Potential for a mixed use/ transit oriented role (medium term)
- Potential horticulture/ intensive agricultural uses

The opportunity to develop a balanced mix of regional distribution, light/ service industry and business park development will require the viability of a number of uses. The following discusses the opportunities for a range of industrial uses in the Turner Rd Industrial Node.

6.3.1 Warehouse and Distribution

Regional warehouse and distribution centres will continue to be sought after in the region in the short term allowing Turner Rd to act as a local distribution centre, servicing the growing populations of Camden. Typical site requirements would be in the range of 1-2 hectares (10,000 sq m floorspace and above) with up to 4 hectare site required. In the longer term the centres could be focused on a regional distribution level, servicing the whole South West Growth Centre

Site Requirements

Minimum lot size: 4,000 sq m - 1 hectare

Locational requirements: Good access to arterial roads. Low density of employment means it is not critical to locate near residential development.

6.3.2 National Tenant, including light manufacturing and engineering

There is significant demand to provide for the long term industrial needs of the region, catering for both large and small enterprise. Concept planning should accommodate National tenants (5,000 to 10,000m² floorspace). Provision should be made for anchor tenants with requirements up to 15 hectare.

These tenants seek gateway locations with higher profile and higher visibility. Experience in Sydney and Melbourne has seen these types of tenants moving on a regular basis with the average length of lease around 7 years. There is the opportunity to attract these tenants from other locations with a well presented business environment.

Site Requirements

Minimum lot size: 4,000 sq m – 1 hectare

Locational requirements: Good access to arterial roads. High exposure site preferred.

6.3.3 Service/ Light Industrial

The demand for a smaller lots size environment could be achieved with a Master planned estate (or several estates) with appropriate amenity controls, including building materials, set backs, landscaping and car parking and storage. In the short term, this could be directed to meeting demand from local businesses for sites between 1,500 and 4,000m².

Site Requirements

Minimum lot size: 2,000 sq m

Locational requirements: Good access to arterial roads including Camden Valley Way. Accessibility to locations within the South West Growth Centre is also important.

6.3.4 Business Park (Office/ Warehouse)

Business Park development would provide a mix of uses including industrial; office; bulky goods; recreation and entertainment and service centres. There are a number of fundamentals that indicate that there could be a strong market for this activity. This includes:

- Current high level of regional population growth
- Increasing levels of wealth in the regional population
- Growing service industry in the region

The Turner Rd precinct already identified provides a number of key competitive advantages for this type of development including:

- Extensive frontage to a major arterial with possible direct access to the F5 freeway
- Exposure from passing traffic
- Opportunity for high amenity, buffered from the Freeway and major roads on all sides.

Typical examples of world class successful Business Park developments include areas in the order of 30 hectares to create critical mass in the office component offer.

However, the type of office likely to be offered at Turner Road would be ancillary to other uses including manufacturing and warehousing. A stand alone office park would be better accommodated near or in the Oran Park Town Centre.

Site Requirements

Minimum lot size: 2,000 sq m

Locational requirements: Good access to arterial roads. Require high amenity development environment and high exposure

6.4 Supply and product mix in Turner Road sites

Subject to the broad timing estimates and market segmentation opportunities highlighted above, MacroPlan has reviewed the suggested supply of employment land in different areas of the Turner Road precinct.

6.4.1 Camden Valley Golf site

The Camden Valley Golf site has the following land distribution:

- 24 hectares of employment land
- 5.6 hectares allocated for retail / commercial land
- 4.2 hectares allocated for 'other economic land'

The employment land parcel is adjacent to Badgally Road and could be delivered from 2009 as part of an initial release of land parcels over 4 years at 6 hectares per year. A mix of parcels between 2,500m² and 10,000m² could be provided with a handful of 2 and 3 hectare parcels for anchor uses including distribution or manufacturing.

The retail/commercial land will accommodate 2,500m² of retail facilities at the Golf Club and 1,000m² of retail floorspace adjacent to Badgally Road.

MacroPlan notes that up to 30,000m² of office floorspace is muted in the Masterplan. This would be difficult to deliver earlier in the project due to limited market demand. It would also encroach on the viability and sustainability of the Oran Park town centre – especially given that only 5,000m² of office floorspace is to be delivered there. We believe this level of office supply would be better suited to the Oran Park Town Centre or Leppington.

6.4.2 Marist Brothers Site

The Marist Brothers site has the following land distribution:

- 45 hectares of employment land
- 3.2 hectares allocated for retail / commercial land

The Marist Brothers site will be the key employment land node at Turner Road supplying 45 hectares of land across a number of parcels with access to Badgally Road and Camden Valley Way. MacroPlan notes that some of the industrial land has been allocated for retail or bulky goods purposes along Camden Valley Way and the southern side of Badgally Road. We would caution this use as again it will threaten the viability of the Oran Park Town centre which will also be supplying this type of floorspace.

It is MacroPlan's view that land allocated for employment purposes at Turner Road should be reserved for these purposes and that bulky goods retailing should only be supplied if residential development at Catherine Fields comes on before 2015. Without early development of other adjoining precincts in the South West Growth Centre, the resident expenditure pools of Turner Road and Oran Park would not be adequate to sustain this level of retail floorspace.

The employment land within the Marist Brothers site could be supplied in conjunction with the Camden Valley Golf site in alternative stages over 7 to 10 years from 2009.

The land allocated for retail uses includes land at the local town centre whereby around 10,000m² of retail floorspace is envisaged. The supply of floorspace and configuration is discussed in more detail in part 7.7 of this report.

7 Oran Park Town Centre Sizing

This section provides an assessment of future retailing opportunities for a proposed town centre at Oran Park in the context of outer south-western Sydney. The retail trade assessment will highlight the most appropriate size of the town centre in terms of retail floorspace. It will also provide advice on the growth in demand for retail floorspace in the defined trade area based on average household expenditure and population growth.

7.1 Trends in Retailing

The overwhelming trend in the supply of retailing over the past thirty years has been the development and expansion of large enclosed shopping centres. Enclosed shopping centres around Australia have expanded at unprecedented rates since the 1970's.

These type of centres have become popular with consumers who wish to purchase a large range of items in one location and more recently they have served as recreational outlets with cinemas, food courts and personal care providers including gyms.

7.1.1 Big Box Retailing

Large format warehouses (e.g. Harvey Norman, Ikea, Bunning's etc) developing on highway frontages (industrial land) with low rents. Stores retail a wider range of goods than traditional types of peripheral sales stores. There has been significant development during the 1990's in across Australia. With catchment saturation in metropolitan centres, these big box retailers are identifying viable opportunities in regional townships. A site selection criterion in regional locations is cheap land with high volumes of passing trade. Stores are generally half the size of their metropolitan counterparts.

7.1.2 24 Hour, 7 days a week trading

A response to changing work and lifestyle patterns has altered traditional shopping patterns and requires all traders to adapt to compete. National supermarket chains are capitalising on allowing access to higher frequency visitation and a wider customer base. Many supermarkets have commenced 24-hour operation to serve the needs of shift workers.

7.1.3 Internet shopping

With increasing home PC purchases and internet connections, internet shopping is growing in popularity every year. Sales are concentrated in books, travel, computer software, toys and electrical goods. Current estimates vary, however none exceed more than 1% of retail sales in Australia. Very few companies are returning a profit from web sales alone.

7.1.4 Credit

Ready accessibility to credit has lead to increased purchases over the past decade. Larger stores offering interest free terms and no deposit have created credit competition.

The format from which retailing is provided is only part of the story when analysing changes in the retailing industry. Understanding consumer lifestyles and household structures helps develop the whole picture of the dynamic retailing environment. Dominant changes to lifestyles include increased female participation in the workforce, increased disposable incomes and increased expenditure on services and luxury items, decreasing household sizes (single person households), decreased traditional families and the aging of the population.

7.2 Current Supply in Outer South-Western Sydney

MacroPlan has referred to the NSW / ACT Shopping Centre Directory – 2006 in its assessment of current retail floorspace supply servicing the major existing residential release areas within outer south-western Sydney (e.g. Liverpool and Campbelltown).

The NSW / ACT Shopping Centre Directory provides detailed information on regional and local shopping centre floorspace (including the type of retailers) but it does not survey retail floorspace analogous to the primary shopping centres (i.e. strip shops and speciality stores outside centres)

7.3 NSW / ACT Shopping Centre Directory

The table below provides an overview of retail floorspace across the major centres in the outer south-western Sydney region.

Table 8. Outer South-Western Sydney Retail Centres

Shopping Centre Name	Suburb	Total Retail Area m2 (GLAR)	Major Tenants
North East Region			
Bonnyrigg Plaza	Bonnyrigg	20,100	Big W - 8,373m2 Woolworths - 4,030m2 Franklins - 2,680m2
Valley Plaza	Hinchinbrook	9,834	Coles - 3,561m2 Woolworths - 2,271m2
Miller Community Shopping Centre	Miller	9,653	Woolworths - 3,551m2 Franklins - 1,543m2 Mitre 10 - 925m2
Carnes Hill Marketplace	Horningsea Park	13,493	Big W - 4,500m2 Woolworths - 3,000m2 Dan Murphy's - 1,500m2
Westfield Liverpool	Liverpool	59,940	Myer - 18,766m2 Target - 8,250m2 Woolworths - 3,659m2 Toys 'R' Us - 3,260 Coles - 2,085m2 Best & Less - 1,189m2
Liverpool Plaza Shopping Centre	Liverpool	6,373	Franklins - 1,300m2
Megacentra Liverpool	Liverpool	29,296	Harvey Norman - 10,147m2 Domayne - 4,906m2
East Region			
Casula Mall	Casula	15,393	Kmart - 7,815m2 Coles - 5,307m2 Franklins - 2,271m2
Glenquarie Shopping Centre	Macquarie Fields	10,988	Coles - 3,149m2 Franklins - 2,054m2 Go-Lo - 1,237m2
Ingleburn Fair	Ingleburn	7,431	Bi-Lo - 1,418m2 Target Country - 1,202m2
South East Region			
Minto Mall Shopping Centre	Minto	25,333	Aldi Supermarket - 7,070m2 Kmart - 6,596m2 Coles - 2,571m2 Woolworths - 1,745m2
Eagle Vale Marketplace	Eagle Vale	7,606	Woolworths - 4,111m2
Campbelltown Mall	Campbelltown	34,897	Kmart - 8,544m2 Target - 7,093m2 Coles - 3,825m2 Woolworths - 2,725m2 Franklins - 1,380m2 Best and Less - 1,046m2
Domayne Centre	Campbelltown	7,462	Domayne - 4,828m2
Markettair Campbelltown	Campbelltown	7,932	IGA - 2,660m2
Macarthur Square	Ambarvale	77,477	David Jones - 12,243m2 Big W - 8,792m2 Woolworths - 4,185m2 Coles - 2,746m2 Baby Target - 1,744m2 Rebel Sport - 1,663m2 Target - 1,483m2 Dick Smith - 1,385m2
Rosemeadow Marketplace	Rosemeadow	6,369	Woolworths - 3,677m2
South Region			
Narellan Town Centre	Narellan	28,358	Big W - 6,904m2 Woolworths - 3,760m2 Bi-Lo - 3,398m2 Go-Lo - 1,143m2 Best and Less - 1,129m2
Mt Annan Marketplace	Mount Annan	4,916	Woolworths - 3,660m2
Camden Central Shopping Centre	Camden	50,000 (estimate)	Coles

Source: Property Council of Australia

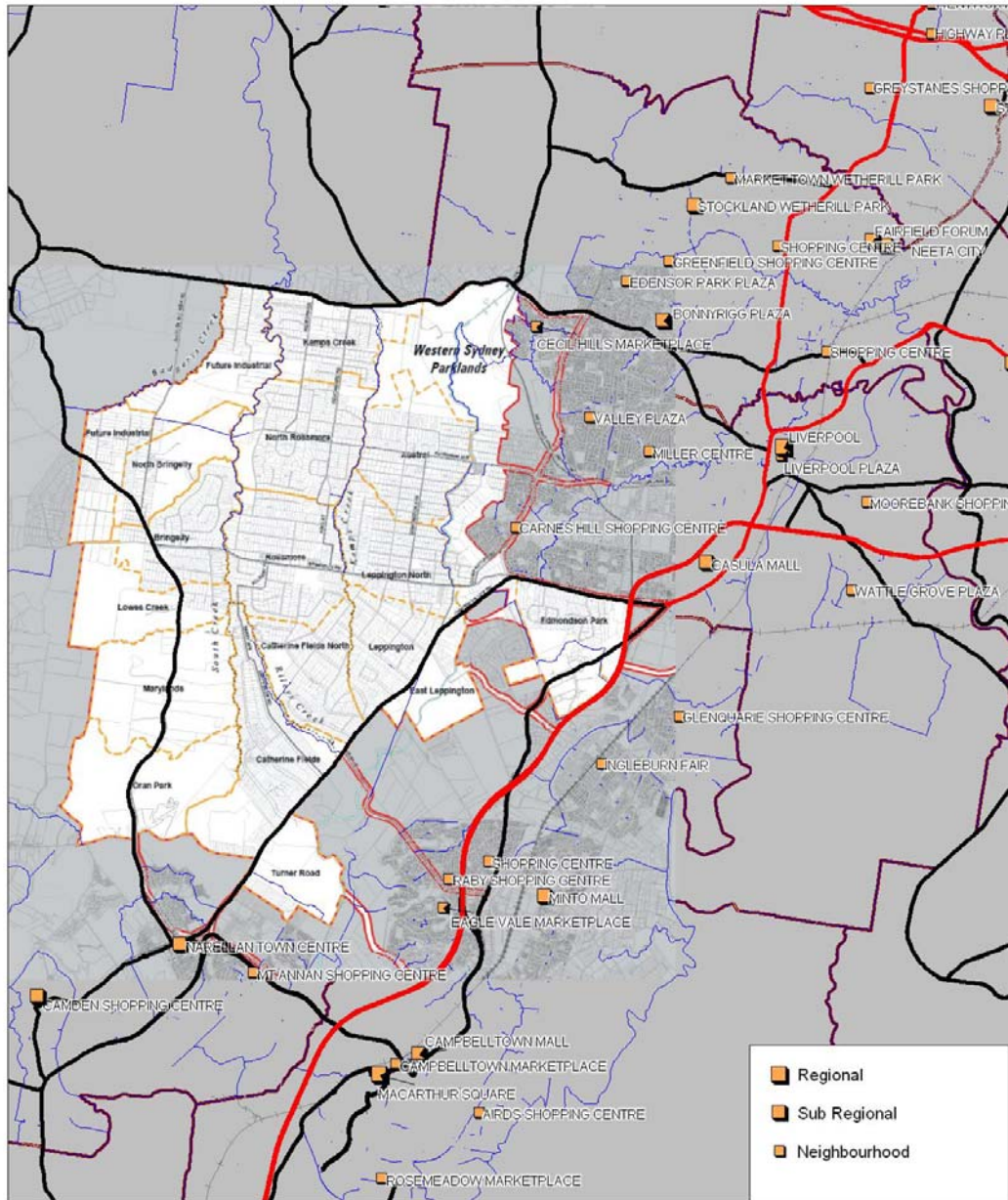
This assessment reveals that the main retail competition to Oran Park is located to the South, which includes the Narellan Town Centre, Mt Annan Marketplace and Camden Central Shopping Centre.

7.4 Projecting Retail Demand

MacroPlan has assessed the projected population catchment for the purposes of calculating likely levels of sustainable retail floorspace. We have undertaken a review of the location of primary regional shopping centres and an assessment of Oran Park's role in the hierarchy of the outer south-western Sydney retail market.

The figure below provides an overview of the location of primary retail nodes in the outer south-west Sydney region.

Figure 6. Retail Centre Overview



Source: MacroPlan Australia

The projected population for the Oran Park trade area is provided in the table below. Oran Park is likely to be developed first, with land being released around 2008. MacroPlan has assumed that Catherine Fields and Marylands will not be released until 2018. Retail demand at Oran Park is likely to expand after 2018, as additional retail demand is generated from a wider trade catchment.

The expected populations for the primary and secondary catchments are listed in the table below.

Table 9. Projected Population

Development Potential (based on shopping centre retention)	Forecast					
	2011	2016	2021	2026	2031	2036
Population Forecasts						
Primary (Oran Park)	4,946	17,152	23,155	23,155	23,155	23,155
Secondary (Turner Rd, Catherine Fields & Marylands)	4,326	19,824	27,324	39,824	52,324	54,824
Trade Area	9,272	36,976	50,479	62,979	75,479	77,979

Source: MacroPlan (2007)

The retail trade area has been split into the following two catchments:

- **Primary Catchment** – Oran Park
- **Secondary Catchment** – Turner Road, Catherine Fields and Marylands

Depending on competition and the geography of the surrounding area, primary trade areas commonly provide 60-70% of sales for a given centre whilst secondary trade areas can provide for 15-25% of sales.

7.4.1 The expenditure pool - residents

MacroPlan has calculated the current and future retail expenditure pool in the Camden Statistical Local Area (SLA) subject to population and expected retail expenditure per capita. The Camden SLA is used to project the expenditure profile of the future Oran Park and Turner Road residents. This provides a conservative estimate of the trade area expenditure pool.

The expenditure profile of Oran Park and Turner Road residents is detailed below. It reveals the volume of expenditure from household income that is allocated to retail trade for products sold directly by the retail sector. The expenditure profile is in line with the average for South West Sydney.

The retail catchment includes a limited expenditure pool from residents in Catherine Fields and Marylands. It is assumed populations in these precincts are supplied from 2015 onwards.

The total expenditure on retail trade per capita is currently \$10,666 per annum as at 2006 with the largest allocations to expenditure at Supermarkets (\$3,787), Clothing and Accessories (\$1,285), Restaurants and Caf  s (\$1,369) and Furniture and Whitegoods (\$774).

Table 10. Expenditure Profile – Camden SLA

Expenditure Profile	(\$) 2006
Supermarket	3,787
Catering (Restaurant and Caf��)	1,369
Clothing and Accessories	1,285
Furniture and Whitegoods	774
Electrical	521
Houseware and Softgoods	380
Hardware	616
Sports and Hobbies	436
Services	441
Newsagent and Chemist	784
Bottle-shop	568
TOTAL	10,666

Source: Marketinfo, MacroPlan (2007)

Total retail expenditure levels within the trade area in 2006 and future years are assessed by combining the population forecasts presented in the previous section with expenditure profile levels allowing for real growth in retail sales. This is presented in the table below.

Table 11. Expenditure Pool – residents

Expenditure Pool (\$m)	Forecast					
	2011	2016	2021	2026	2031	2036
Catchment						
Supermarket	36	131	220	290	368	401
Catering (Restaurant and Café)	13	47	80	105	133	145
Clothing and Accessories	12	44	75	99	125	136
Furniture and Whitegoods	8	30	53	75	101	117
Electrical	5	20	36	50	68	79
Houseware and Softgoods	4	15	26	37	49	58
Hardware	6	24	42	59	80	93
Sports and Hobbies	4	15	25	33	42	46
Services	4	15	26	34	43	47
Newsagent and Chemist	8	27	46	60	76	83
Bottle-shop	5	20	33	44	55	60
Total	106	387	662	886	1,140	1,265

Source: MacroPlan Australia

The pool shows growth in expected retail expenditures from \$106 million in 2011 to an expected \$1.27 billion in 2036 in real terms. The composition of this pool will be driven by residential product mixes, population age, household structure and wealth which are difficult to predict more precisely at this time.

7.4.2 Sustainable floorspace

Subject to the retail expenditure pools calculated above for trade areas residents, MacroPlan has calculated estimates of the retail floorspace that is sustainable assuming no leakage of expenditure. In other words the table depicts the retail floorspace that could be built in Oran Park, Turner Road, Catherine Fields and Marylands if every \$ of retail expenditure was captured in these precincts. The table below reveal these estimates.

Table 12. Sustainable floorspace Oran Park / Turner Road, Catherine Fields and Marylands

Sustainable Floorspace Estimate	Forecast					
	2011	2016	2021	2026	2031	2036
Catchment						
Supermarket	4,013	14,459	24,376	32,122	40,662	44,371
Catering (Restaurant and Café)	2,887	10,400	17,533	23,104	29,247	31,915
Clothing and Accessories	2,493	8,983	15,144	19,956	25,262	27,566
Furniture and Whitegoods	2,534	9,730	17,486	24,562	33,144	38,553
Electrical	711	2,732	4,909	6,896	9,305	10,824
Houseware and Softgoods	1,512	5,806	10,434	14,657	19,777	23,005
Hardware	3,299	12,668	22,765	31,978	43,150	50,191
Sports and Hobbies	1,109	3,997	6,738	8,879	11,239	12,264
Services	1,458	5,252	8,854	11,667	14,769	16,116
Newsagent and Chemist	1,043	3,759	6,337	8,351	10,572	11,536
Bottle-shop	433	1,560	2,630	3,466	4,387	4,788
Total	21,492	79,345	137,205	185,638	241,514	271,127

Source: MacroPlan Australia

Table 12 above reveals how the trade area's total estimated sustainable floorspace is expected to grow from 21,492m² in 2011 to 271,127m² in 2036. As discussed above, this includes expenditure from primary and secondary catchments – i.e. Oran Park, Turner Road, Catherine Fields and Marylands.

7.4.3 Development Potential

In reality not all retail expenditure of trade area residents will be captured in Oran Park. Many residents will spend money outside Oran Park in areas like Narellan, Campbelltown, Liverpool and the proposed Leppington town centre.

The estimates above assume no leakage of expenditure to retailers outside the catchment. MacroPlan has assessed benchmark rates of expenditure leakage based on other retail trade analysis work across Australia in order to estimate retention rates by retail category for both primary and secondary catchments.

Leakage of expenditure away from shopping centres close to residents occurs due to:

- A failure of the shopping centre to supply a full range of retail goods and services
- The loss of expenditure dollars as residents work and spend money in different locations
- Competition from other centres

As illustrated in Table 13 below, the results of the sustainable floorspace assessment for the Oran Park Trade Area, combined with potential levels of retention indicate that the trade area categories will generate demand for 58,156 m² of retail floorspace by 2026 and 77,278m² by 2036.

These estimates are premised on competing shopping centres being established at Leppington from 2020 and in Catherine Fields and Marylands as population is delivered in these precincts. If the delivery of Leppington is delayed, captured expenditure at the Oran Park Town Centre will be higher.

Table 13. Sustainable floorspace assuming expenditure leakage

Development Potential (retention based on escape exp)	Forecast					
	2011	2016	2021	2026	2031	2036
Regional						
Supermarket	2,194	7,989	12,143	14,101	16,241	17,438
Catering (Restaurant and Café)	1,347	4,900	7,528	8,868	10,336	11,121
Clothing and Accessories	914	3,334	4,988	5,664	6,401	6,849
Furniture and Whitegoods	642	2,474	4,299	5,816	7,646	8,855
Electrical	180	695	1,207	1,633	2,147	2,486
Houseware and Softgoods	383	1,476	2,565	3,470	4,562	5,284
Hardware	836	3,221	5,597	7,571	9,954	11,529
Sports and Hobbies	222	799	1,348	1,776	2,248	2,453
Services	758	2,759	4,207	4,907	5,672	6,094
Newsagent and Chemist	494	1,803	2,669	2,984	3,327	3,551
Bottle-shop	228	833	1,228	1,366	1,516	1,616
Total	8,199	30,283	47,779	58,156	70,048	77,278

Source: MacroPlan Australia

7.5 Retail Assessment Outcome

The analysis detailed in this report identifies the need and sustainable justification for a retail town centre of between 45,000m² and 55,000m² in the Oran Park Precinct at the end of the development timeframe for the retail catchment. This is likely to incorporate two full line discount department stores, two supermarkets and approximately 100 specialty stores. This offering will provide extensive coverage of a broad range of retail needs and a wide range of shopper facilities and amenities.

There is also the potential for approximately 20,000m² of retail floorspace within other areas of Oran Park and Turner Road. This would include two neighbourhood centres of around 5,000m² west of the Northern Road and 10,000m² at Turner Road. The demand for this floorspace would be partially driven by the secondary expenditure pool from Turner Road and Catherine Fields and Marylands (assuming they are delivered from 2015). Hence the floor areas proposed in the masterplan for Oran Park and the Turner Road precincts are broadly sufficient for the region.

The new town centre at Oran Park will have the capacity to capture expenditure from a wider catchment including areas within Camden and Marylands / Catherine Fields. Estimates of captured expenditure from Marylands and Catherine Fields have been included in this estimate for the Oran Park Town Centre.

Importantly, the timing of the delivery of retail floorspace is designed to limit the impact on the existing Camden and Narellan town centres. It does this by delaying the supply of floorspace at Oran Park and Turner until a suitable expenditure pool exists from the new residents in these precincts.

A more detailed explanation of the configuration and timing associated with the Oran Park Town Centre is provided below in part 7.6 of this report.

7.6 Oran Park Town Centre Configuration and Employment

A town centre with up to 50,000m² of floorspace will have a significant function within the region as a service centre and employment generator.

An appropriate configuration for this floorspace would be around 40,000 to 45,000m² of retail at the Oran Park Town Centre with up to 10,000m² of bulky goods adjacent to the town centre. Around 5,000m² of commercial floorspace would also be supplied.

Most white collar workers residing in Oran Park and Turner Road are likely to work in larger administrative centres including Campbelltown, Liverpool, Parramatta and the Sydney CBD. Leppington will also eventually have a role as an employment generator for white collar workers residing in Oran Park and Turner Road.

Likely employment yields at the town centre are as follows:

- Retail 50,000m² – supporting 2,000 jobs at 1 position per 25m²
- Office and other administrative – supporting 250 jobs at 1 position per 20m²

7.7 Retail configuration outside Oran Park Town Centre

The table below provides a suggested overview of the release of retail floorspace at Oran Park and Turner Road. It reveals a suggested release of retail floorspace across all centres in the Oran Park and Turner Road precincts including:

- The Oran Park Town Centre is supplied with an initial stage of 5,000m² in 2011 (including a full line supermarket and speciality stores) with an additional 15,000m² supplied in 2016 including one discount department store, a second supermarket and further speciality stores. The later stages from 2030 allow for the opportunity of additional supply of bulky goods retail adjoining the town centre.
- The McIntosh Land Northern local Centre is supplied from 2011 due to its further distance from the Oran Park Town Centre. The McIntosh Land Southern Centre is supplied in alternative stages. Both of these centres would supply around 5,000m² of retail floorspace. A limit of 1,500m² on supermarket floorspace would be appropriate to ensure that full line supermarkets operated in the Oran Park Town Centre are the primary 'retail anchors' in the region consolidating expenditure in this centre.
- Badgally Road retail would be supplied on employment land as 'lunchtime cafes / restaurants' for workers in the precinct.
- Golf Course retail at Turner Road could include restaurants / bistro / golf store etc as part of the golf course and could equate to around 3,000m²

In addition to the supply of a hardware store (that would be consistent with industrial uses in the area) an opportunity may exist to supply some bulky goods adjacent to Badgally Road and Camden Valley Way at Turner Road in the medium to longer term. This would have a limited impact on the Oran Park Town Centre under the following scenarios:

- Lots are released at Catherine Fields from 2015 at a rate of around 300 per year or more adding to the retail expenditure pool and providing impetus for the sustainability supply of additional retail
- Badgally Road is upgraded from 2012 - 2014 providing for a potentially wider retail catchment from Campbelltown
- Marylands is also co-ordinated and released with a rapid lot supply of up to 500 lots per annum from 2015 providing additional support for the Oran Park Town Centre, however this is unlikely given the supply of lots envisaged from Oran Park and the competition they would provide.

Table 14. Timing and staging of retail floorspace across Oran Park and Turner Road precincts

Development staging and timing Floorspace m ²	2011	2016	2021	2026	2031	2036
Oran Park Town Centre	5,000	15,000	5,000	15,000	5,000	5,000
McIntosh Land Northern Centre	2,500		2,500			
McIntosh Land Southern Centre		2,500		2,500		
Turner Road Town Centre	2,500	2,500	5,000			
Golf Course Retail		1,000		2,000		
Badgally Road Retail		500	1,500			
Additional Supply	10,000	21,500	14,000	19,500	5,000	5,000
Accumulated Supply	10,000	31,500	45,500	65,000	70,000	75,000

Source: MacroPlan Australia

8 Conclusion

8.1 Oran Park and other town centres

The role of the Oran Park Town Centre in the development of the Southern half of the South West Growth Centre will be influenced by a number of factors. However, one of the primary drivers of its growth as a retail and commercial centre will be the timing of Leppington.

It is currently assumed that Leppington (and surrounding populations) will begin delivery between 2016 and 2018. However this timing is contingent upon the Growth Centres Commission achieving a co-ordinated release of land.

MacroPlan recommends that the Growth Centres Commission takes a flexible position on the role of the Oran Park town centre in the future recognising that a delay in the delivery of Leppington will require the Oran Park town centre to have a more significant role, particularly as a commercial centre.

Further, if Leppington is delayed and if dwellings are delivered from 2016 in Marylands and Catherine Fields, the Oran Park Town Centre will have a more important regional role as a town centre and will need to be developed in a way that ensures that local business activity is captured and not leaked to other more established regions of Sydney.

8.2 Land Use at Turner Road

MacroPlan has noted that landowners in Turner Road have a preference for supplying bulky goods and retail showrooms on industrial land on Badgally Road and Camden Valley Way. MacroPlan would have concerns with this land use strategy for the following reasons:

- It will reduce the supply of land for industrial purposes in South West Sydney of which there is a current and emerging future shortfall
- It will impact on the timing of the supply of retail floorspace in and around the Oran Park Town Centre by competing with retail floorspace there
- It would increase the volume of private vehicle trips for the purpose of shopping as there would be limited public transport options at Turner Road relative to the Oran Park Town Centre
- The supply of bulky goods adjacent to the Oran Park Town Centre is a better option as it will increase retail trade and the absorption of floorspace there. This will make commercial and high density residential uses more attractive.

It is important for the Growth Centres Commission to recognise that the delivery of higher density living in the South West Growth Centre will be difficult to achieve in the context of the residential market. Apartments and townhouses in established centres within South West Sydney (including Liverpool and Campbelltown) are becoming difficult to sell.

Apartments sold in new development fronts such as Oran Park are unlikely to be offered at a discount to apartments in established town centres. This is because the land price discount for the developer is minimal relative to the overall cost of construction and delivery.

It is therefore important to note that the supply of high density housing in new development fronts will need planning assistance in terms of the provision of job opportunities in the town centre (i.e. a wide spectrum of retail) and commercial floorspace. Buyers of medium and high density dwellings will only trade off dwelling size if a wide range of services are available on their doorstep.

MacroPlan has also noted that draft indicative layout plans for Turner Road included the supply of up to 30,000m² of commercial floorspace. While we do not believe this volume of commercial floorspace is appropriate at Turner Road, it could be logical to supply an additional 10,000 to 15,000m² of commercial floorspace at the Oran Park Town Centre if Leppington is delayed. The logic behind this will be to achieve:

- Improved demand for high density dwellings at the Oran Park Town Centre
- Employment opportunities for white collar workers as the Oran Park precinct matures

In conclusion, MacroPlan re-iterates that this study has assessed retail, commercial and employment land requirements for the Oran Park and Turner Road precincts subject to current market conditions and the needs of residents as well as anticipated future needs and job requirements. However there are a number of unknown variables that are likely to influence the most appropriate land use strategy in the future including:

- The timing of residential land co-ordination in other precincts (including the management of small land holder price expectations)
- The timing of infrastructure supply and connections (including road and rail)
- Market acceptance of medium and high density dwellings in new development fronts

All of these factors have proven to be constraints on the delivery of residential land in Sydney in recent years and they are likely to continue to remain as constraints.