

# Appendix E

## Retail Needs Analysis

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**ASDC PTY LTD**

LOT 55 RETAIL ANALYSIS  
TECHNICAL BRIEFING NOTE

JUNE 2016

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## 1 INTRODUCTION

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Pracsys has been commissioned by General Property Assets to conduct a retail needs analysis of the proposed Lot 55, Chapman Rd development. The analysis is intended to test the market potential of the planned bulky goods development at Lot 55 Chapman Rd. This report is designed as an interim report to inform the concept design undertaken by TPG by testing market capacity for the development at this time. The report covers:

- Demand catchment estimation
- Supply catchment estimation
- Turnover and productivity forecasting
- Recommendations

## 2 CONTEXT

The site for the proposed development is situated in the locality of Glenfield approximately 9.3km north of the Geraldton CBD. It is situated on a major road connecting the northern residential areas to the main town site and other southern residential areas affording it good visibility and connectivity to various sections of the population. The development is reasonably far removed from other competing bulky goods centres in the area, giving it a locational advantage to the local population. This is particularly beneficial as the majority of population growth in Geraldton is expected to occur in these northern areas as evidenced by a number of structure plans submitted for the area.

The design as it stands consists of a mixture of large, medium and small showrooms. These are expected to house tenants such as Bunnings, City Farmers and BBQ's Galore as well as other, smaller format bulky goods.

### 2.1 COMPLEMENTARY CENTRES

The Lot 55 development is anticipated to precede the development of Lot 9000 directly to the North. Lot 9000 is designated as a district centre in local planning policies and is likely to contain more traditional retail uses with a small contingent of bulky goods. In the retail sphere, this trend of co-locating bulky goods with traditional retail uses is becoming more and more prevalent for large format retail developments. The approach offers more flexibility for developers in allowing traditionally narrowly focused large format retailing to offer a range of different services. The co-location with the district centre is expected to offer many benefits<sup>1</sup>:

- The district centre is expected to include a supermarket; this will act as an anchor of sorts that attracts users and reinforces habit forming behaviours. As such, the supermarket will assist in attracting and retaining customers which in turn will increase dwell time in the centre and increases opportunistic shopping and potential spend.
- Bulky goods typically operate predominantly as weekend traders, by introducing diversity and traditional retail to the mix of uses the precinct will allow for more 'round the clock activation. This in turn promotes habit forming behaviours, higher foot traffic and improves the attractiveness of the centre which can result in a much higher potential spend due to increased exposure.
- The co-location allows the development to be represented as a full line shopping destination (with all the associated benefits) while retaining its own identity as a bulky goods centre.
- These benefits are likely to assist in the ability to attract and retain higher quality retailers that can attract a wider catchment and bring greater value to the site.

Given these benefits, the co-location is expected to significantly benefit the Lot 55 development as well as promoting improved consumer outcomes.

It should be noted that central to the success of co-location is the removal of barriers (perceived, physical or otherwise) between the centres. If permeability between the two centres is hampered in any way, it is expected

<sup>1</sup> Craig Godber, Diversity Without Diluting Focus, 2015, CBRE Viewpoint



that the benefits of co-location would be reduced as the centres operate as separate entities. As such, traffic calming or avoidance measures to assist the connectivity between both centres is recommended.

## 2.2 LOCAL PLANNING POLICY

Any development in Geraldton will be expected to comply with the local planning policy and support the policy objectives defined in it. The Geraldton local planning scheme makes no specific reference to Bulky Goods except to define it as:

- Premises used to sell by retail any of the goods and accessories of the following types that are principally used for domestic purposes
  - o Automotive parts and accessories
  - o Camping, outdoor and recreation goods
  - o Electric light fittings
  - o Animal supplies including equestrian and pet goods
  - o Floor and window coverings
  - o Furniture, bedding, furnishings, fabrics, manchester and homewares
  - o Household appliances, electrical goods and home entertainment goods
  - o Party supplies
  - o Office equipment and supplies
  - o Babies' and children's goods, including play equipment and accessories; (xi) sporting, cycling, leisure, fitness goods and accessories
- Premises used to sell by retail goods and accessories if:
  - o A large area is required for the handling, display or storage of the goods; or
  - o Vehicular access is required for the premises for the purpose of collection of purchased goods
- o Swimming pools

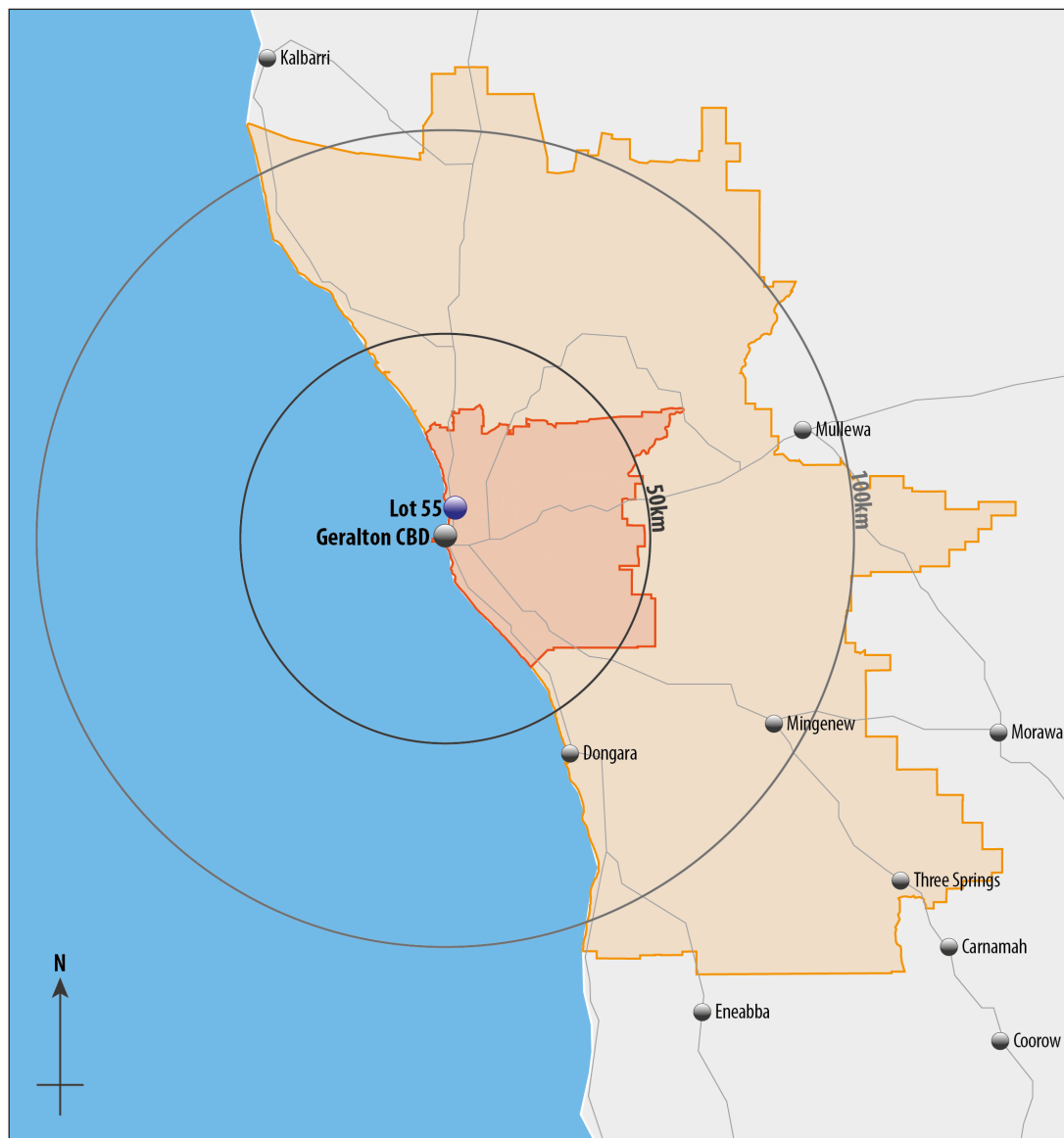
## 3 DEMAND

### 3.1 DEMAND CATCHMENT

As a major regional town, Geraldton is expected to service a significant portion of the Midwest. Therefore, it is expected that consumers are likely to travel larger distances for their bulky goods needs. The primary and secondary catchment of Lot 55 is shown in Figure 1.

The primary catchment includes approximately 80% of all dwellings in the main trade area and includes the major residential area of Geraldton. The primary catchment stretches approximately 20km to the north of Lot 55 and approximately 50km east and south. The secondary catchment surrounds the primary catchment, and includes residents that reside up to 100km from Lot 55.

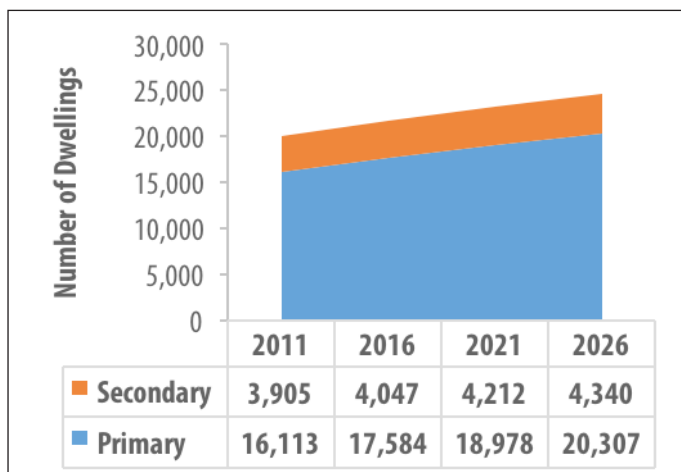
**Figure 1. Lot 55 Catchment**



Source: Pracsys (2016)

The number of dwellings in the primary and secondary catchment were drawn from the 2011 Census. Estimates of dwelling growth were based on Band C projections for Statistical Area 2 (SA2) locations from WA Tomorrow before being aggregated into the respective catchments.

**Figure 2. Catchment Area Dwelling Growth Forecast**



Source: Pracsys (2016), WA Tomorrow (2016), ABS Place of Residence (2011)

Significant growth is likely to be concentrated in the northern corridor, outlined in planning policies such as the Glenfield Beach Local Structure Plan, Glenfield District Structure Plan and Waggrakine Structure Plan.

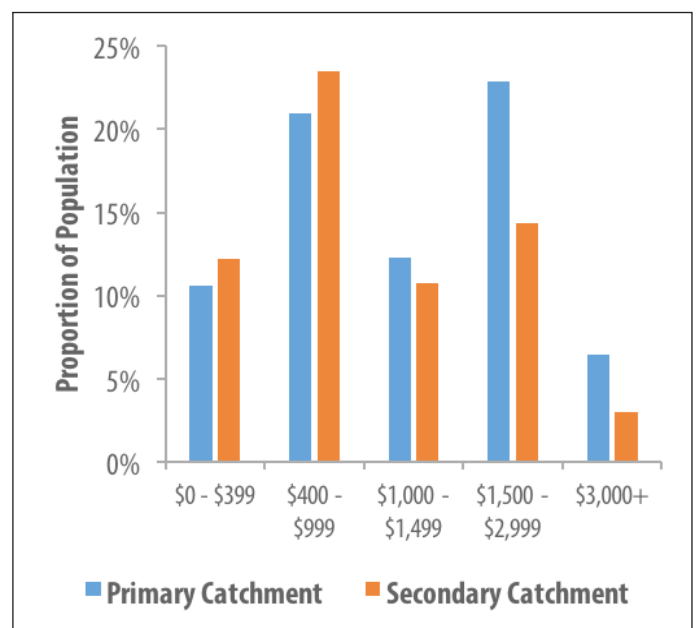
The Glenfield District Activity Centre Plan is of particular interest as it expresses potential land uses for Lot 9000, a 12-hectare parcel of land directly north of Lot 55. It is anticipated that Lot 9000 will have up to 100 dwellings and a large area dedicated to bulky goods and traditional retail trade.

An analysis of proposed structure plans and housing developments reveals that the majority are located in the northern

end. Recognising the current WA Tomorrow projections may not accurately account for the proposed developments and finer grain data, Pracsys has redistributed some of the future population growth away from the above mentioned areas, concentrating 70% of future dwelling growth in the northern corridor.

ABS Census 2011 data indicates the level of income per dwelling in the primary and secondary catchments (Figure 3).

**Figure 3. Catchment Area Population Income Profile**



Source: Pracsys (2016), ABS Place of Residence (2011)

As shown, the majority of households are in the second and fourth income quintiles. In general, the income of the primary catchment exceeds that of the secondary catchment. There is a significant portion of households in the fourth income quintile (\$1,500 - \$2,999) indicating a large expenditure pool in close proximity to the proposed Lot 55 development.

### 3.2 EXPENDITURE

Bulky goods expenditure was calculated based upon the number of dwellings in the catchment area, their incomes and likely expenditure pattern based on the ABS Household Expenditure Survey. The basket of goods used to calculate potential turnover included all bulky goods categories. Some additional spending items were included due to uncertainty around tenancy mix in the area.

The bulky goods items include but are not limited to:

- Furniture and Floor Coverings
- Household Appliances
- Audio-visual Equipment and Parts
- Motor Vehicle Purchases
- Other recreational equipment
- Animal Expenses
- Household Non-durables

Items included to supplement the basket include but are not limited to:

- Selected Clothing Items (such as sporting clothing)
- Alcoholic Beverages

The basket of goods selected reflects a tenancy mix commonly found in bulky goods developments. Based on this, the expenditure pool has been calculated from 2018, consistent with an estimated operational time for Lot 55 (Figure 4).

**Figure 4. Catchment Area Expenditure Pool (\$m, \$2016)**

	2018	2020	2022	2024	2026	2028
Expenditure (\$m)	\$306.9	\$320.7	\$335.1	\$350.4	\$362.0	\$378.7

Source: Pracsys (2016)

As shown, the expenditure pool (less leakage) grows from \$306.9m to \$378.7m. This is expected to be through a combination of dwelling and real retail expenditure growth.

## 4 SUPPLY

Due to the lack of a central collated source of supply side information, a combination of methods was used to establish the Net Lettable Area (NLA) for bulky goods and similar retail in the catchment area. The Land Use Survey (LUS) conducted by the Department of Planning (DoP) and City of Greater Geraldton (CoGG) provided an initial source of information. This

was supplemented by Pracsys' own database of new developments and finally a desktop search for new local bulky goods retailers and centres was conducted. When new floorspace was discovered, its NLA was estimated through GIS techniques and added to the model. Major bulky goods retailer locations are shown in Figure 5.

**Figure 5. Bulky Goods Retailers**



Source: Pracsys (2016)

Early estimations by TPG suggest that Lot 55 could have a total floor space of 32,800m<sup>2</sup>. Given this, it is assumed that there will be an NLA of approximately 27,880m<sup>2</sup> designated to bulky goods with the remaining anticipated to accommodate other services such as a car wash. It is anticipated that Lot 9000 will be completed in 2020, two years after Lot 55, providing an additional 8,500m<sup>2</sup> NLA in bulky goods floor space.

**Figure 6. Bulky Goods Retail Floor Space**

Bulky Goods Floor Space	Other Retail NLA (m <sup>2</sup> )
Lot 55	27,880
Lot 9000	8,500
Geraldton Furniture And Bedding	580
Kohler Bathroom Showroom	661
Geraldton CBD	6,857
Fifth St	250
Northgate Centre	1,098
Geraldton Central 2	90
Geraldton ISO Uses North	150
Geraldton ISO Uses South	400
Wonthella	250
Webborton Industrial And Commercial Area	29,125
Wonthella Industrial And Commercial	22,476
Westend/Beachlands	1,790
Geraldton Airport	75
Utakarra	54
Total	91,736

**Source:** Pracsys (2016), CoGG (2012), DoP (2010)

As shown in Figure 6, three major bulky goods developments (Webborton, Wonthella and the CBD) currently exist in Geraldton. These are expected to be Lot 55's major competition

given the entrenched behaviours that are likely to be associated with these areas. Webborton and Wonthella are also of a size that they will compete with Lot 55 in terms of scale, choice and variety. The Greater Geraldton area currently accommodates (but not limited to) businesses such as:

- The Good Guys
- Godfrey's
- Repco
- BBQ's Galore
- City Farmers
- Spotlight

At present, no indication of other Bulky Goods developments has been found. As such, floor space has been assumed to remain constant over the 10-year period.

## 5 TURNOVER AND PRODUCTIVITY

### 5.1 TURNOVER

Demand analysis was used to estimate the market potential for the bulky goods offering in the catchment area. Market potential can be derived from three sources:

- Growth in available expenditure either as a result of population growth or as a result of growth in real expenditure
- Capture of expenditure from existing offerings
- Reduction of expenditure through leakage from the catchment area

The additional bulky goods floor space at Lot 9000 which is anticipated to be occupied from 2020 has been included with Lot 55 to reflect their operation as one activity centre.

Figure 7 illustrates the total estimated turnover for Lot 55, Lot 9000 and all other bulky goods retailers in Geraldton.

It is estimated that the turnover of Lot 55 alone will rise from \$81.6m in 2018 to \$108.1m in 2028, accounting for approximately 75% of the total turnover per annum.

It is anticipated that large floor space available when Lot 55 and Lot 9000 are operational in 2020 will lead to a higher rate of turnover at Lot 55 than if it had been traded in isolation.

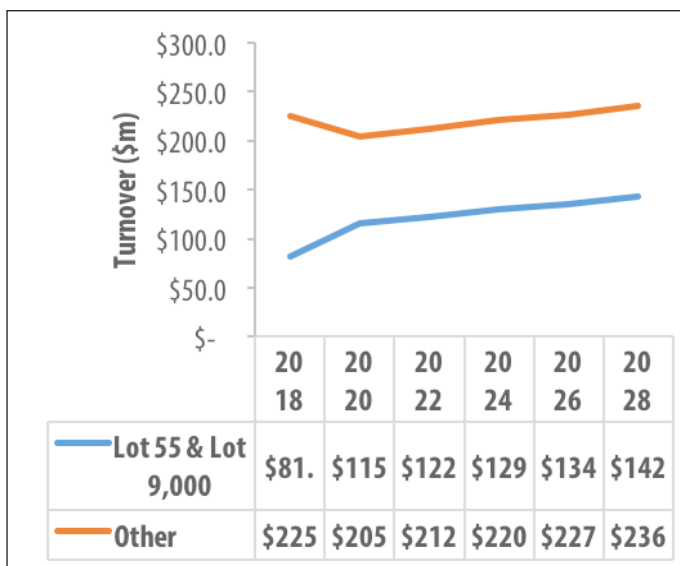
After the initial supply side shock, the total expenditure captured by Lot 55 and Lot 9000 and other identified bulky goods retailers increases over time, in line with expected population and income growth. These levels approach approximately \$142.7m for Lot 55 and Lot 9000 and \$236.0m for all other locations. This growth is due to projected increases in dwellings and real expenditure escalation.

### 5.2 PRODUCTIVITY

Retail operators require a minimum level of productivity to assess the viability of a retail development. These targets vary depending on the type of floor space category, e.g. convenience or comparison retail floor space. Based on industry benchmarks, the average target floor space productivity is approximately \$3,300/m<sup>2</sup> for a bulky goods retailer. This may be slightly lower for a rural location but ultimately is dependent on the individual cost structures of a development and the types of tenants that are located in the area. The developments advantageous location close to the majority of new housing growth in Geraldton will be particularly fortuitous for a bulky goods development.

The analysis has been based on the anticipation of Lot 55 completing the construction phase

**Figure 7. Estimated Total Turnover of Current Floor Space, Lot 55 and Lot 9000 (\$m)**



Source: Pracsys (2016)

and being populated by tenants in 2018, while Lot 9000 will be populated in 2020. An estimate of productivity was calculated up to 2028 providing a 10-year outlook for potential productivity. The analysis does not provide productivity projections beyond 2028 as a range of factors such as future demand for bulky goods and supply of floor space are likely to change.

**Figure 8. Estimated Productivity of Current Floor Space and Lot 55 (\$/m<sup>2</sup>)**

	2018	2020	2022	2024	2026	2028
Lot 55 & Lot 9000	\$3,068	\$3,295	\$3,488	\$3,691	\$3,841	\$4,065
Identified Bulky Goods Business and Areas	\$3,528	\$3,210	\$3,331	\$3,458	\$3,557	\$3,695
All Businesses and Areas	\$3,393	\$3,240	\$3,386	\$3,541	\$3,658	\$3,826

Source: Pracsys (2016)

It is anticipated that the bulky goods component of Lot 55 will trade with a relatively good floor space productivity of \$3,068/m<sup>2</sup> upon completion in 2018. The productivity will continue to increase after the addition of the bulky goods floor space at Lot 9000 as both locations act in unison as a retail centre. These co-location effects and the additional pull and habit forming behaviours that will be reinforced by the district centre are expected to have a significant effect on the trading levels of Lot 55.

The combined floor space productivity of Lot 55 and Lot 9000 will exceed the average for a rural bulky goods retailer in 2023. This is due to the diverse tenancy mix proposed for the development and the ability for Lot 55 and Lot 9000 to act as a centre, attracting consumers that may also shop at non-bulky goods shops such as Coles or other convenience outlets.

The success of Lot 55 and is based on:

- The majority of population growth occurring in the north – this necessarily means that consumers will naturally gravitate towards the closet centre of which will be the Lot 55 development
- Co-location with the district centre will promote heavier foot traffic, dwell times, round the week activation (as opposed to predominantly weekend shops) giving a much higher potential spend at the centre

Similarly, the diversity of uses acts as an attractor to pull greater numbers of customers into the area as they can do a greater number of their shopping needs at once.



## 6 CONCLUSION

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The analysis estimated floor space supply and retail demand for the catchment of Lot 55. Based on this the future expenditure was calculated for bulky goods. Assuming completion of Lot 55 in 2018 the floor space productivity is estimated to be close to \$3,100/m<sup>2</sup> before rising to \$3,300/m<sup>2</sup> upon the completion of Lot 9000 in 2020. This level of turnover in 2018 represents an acceptable and profitable (dependent on cost structures) trading level for a rural bulky goods development. The positive impact that is expected when the district centre becomes operational, further strengthens the case for the development due to their complimentary natures.

## APPENDIX 1

Gravity models allow for the measurement of spatial interaction as a function of distance to determine the probability of a given customer visiting a centre, and provide an approximation of trade area and sales potential for a development. This modelling technique uses the distance between a household and each centre, and a measure of 'attractiveness' to define the probability model. The 'attractiveness' of a centre has been defined by total floor space and the distance has been calculated by measuring straight-line distances between each centre and population. The gravity model probability formula is shown in Figure 9.

**Figure 9. Gravity Model Probability Formula**

$$P_{ij} = \frac{\frac{A_i}{D_{ij}^\beta}}{\sum_{j=1}^n \frac{A_i}{D_{ij}^\beta}}$$

$P_{ij}$  = Probability of customer living/working in collection district i shopping at centre j.  
 $A_i$  = Size of the store/in square feet.  
 $D_{ij}$  = Distance from collection district i to shopping centre j.  
 $\beta$  = Parameter reflecting sensitivity of customers to distance.  
 $i$  = Collection districts ( $i=1, \dots, m$ )  
 $j$  = Centres ( $j=1, \dots, n$ )

**Source:** Carter, C 1993, 'Assumptions Underlying the Retail Gravity Model', Appraisal Journal, Vol. 61, No. 4, pp. 510, Pracsys 2014

**Figure 10. Gravity Model Demand Formula**

$$D_{kj} = \sum_{i=1}^n (P_{ij} * E_i)$$

$D_{kj}$  = Demand for retail category k, at centre j.  
 $E_i$  = Expenditure pool of statistical area i.

**Source:** Carter, C, 1993 'Assumptions Underlying the Retail Gravity Model', Appraisal Journal, Vol 61, No 4, p510, Pracsys 2012

Figure 10 shows that the demand for retail category k, at centre j (Lot 55), is equal to the sum of the probabilities of customers living in statistical areas i to n, multiplied by the expenditure pool of statistical area i. In other words, the demand for retail is a function of the probability of a customer from a particular statistical area attending the centre multiplied by the expenditure pool of that statistical area; with expenditure working as a function of population and income distribution.

In its core form gravity modelling provides a clearer, reproducible outcome that can be easily assessed. However, it does not consider local factors, including:

- The comparative value proposition of centres (e.g. the presence of an 'anchor' attractor that draws significant market share)
- The brand preference of users
- The efficiency of transport networks, as well as geographical barriers (e.g. in some cases it may be easier for customers to access a centre that lies physically further away)

## 7.1 ASSUMPTIONS

The following assumptions underpin the market potential analysis:

- The demand gravity analysis for the residential catchment area considered all existing and announced future retail offerings within the 100 km radius area
- 70% of future dwelling growth has been redistributed from central, southern and eastern areas of Geraldton and concentrated in the northern corridor to reflected growth outlined in the local planning policies
- It was assumed that a degree of all retail expenditure was lost to centres beyond the boundaries considered within the demand gravity analysis (e.g. Perth). This was attributed to the assumption that some retail expenditure would be lost through residents employed beyond the catchment area, with retail expenditure occurring within close proximity to their place of work
- Clothing items included in the expenditure basket were reduced by 90% to be presentative of expenditure on sports apparel
- A leakage rate of 10% and expenditure growth rate of 0.7% was applied to the catchment area population
- It is assumed that Lot 55 will be occupied by tenants in 2018 and Lot 9000 will be occupied in 2020. The close proximity of the two locations will enable them to act in unison as a retail centre, resulting in higher turnover and floor space productivity than if either had acted alone
- The analysis does not account for any new centres that may be developed in the future that remain unknown at this stage
- No additional expenditure was assumed to be captured from workers within the catchment area in order to avoid double counting and maintain a conservative approach to the modelling
- No additional expenditure was assumed to be captured from passing traffic in order to avoid double counting and maintain a conservative approach to the modelling

