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Cedar Woods Properties Ltd.

Impact Test for Eglinton Neighbourhood Retail Space Report

November 2022



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1 EXECUTIVE SUMMARY

Cedar Woods Properties Ltd. currently has an approved LSP for the Eglinton Neighbourhood Centre, with 2,500m² of retail floorspace; they are looking to potentially expand this retail centre to 3,250m². Pracsys has been engaged to understand the impact of the proposed expansion on the surrounding activity centre hierarchy.

Modelling has shown that the estimated impacts are predominantly insignificant and well below the 10% significant impact threshold; meaning the sustainability of the centre hierarchy will be preserved.

In 2025 the 4.8% turnover impact on the EDC is defined as non-significant under the SPP 4.2 Implementation Guidelines, meaning that it will not unreasonably impact the delivery of an activity centre to support the Eglinton Train Station. By 2030 all centres achieve significant productivity increases through population growth, mitigating any impact. Several factors contribute to this finding, including:

- The ENC expansion is small and does not materially increase the attractiveness of the centre, nor the activity centre hierarchy
- The expansion provides the additional floorspace to support surrounding residents without changing its categorisation as a neighbourhood centre.
- The ENC and EDC are surrounded by residential developments that are currently undersupplied
- There is significant growth expected in the Alkimos-Eglinton Area generally
- The ENC and EDC will have similar trade areas but meet different roles in serving the local community
- There is significant growth in retail demand predicted for the developing Eglinton area with several residential developments

It is also worth noting that the proposed expansion does not generate the need for any additional infrastructure to that which has been planned for the neighbourhood centre to date. The network of roads, pedestrian/cycling infrastructure, public transport, and utility services as planned are adequate to accommodate the proposal without change.

The proposed Shop/Retail expansion aligns with draft SPP4.2 objectives and can be recommended for approval.



2 INTRODUCTION

2.1 Background

Cedar Woods Properties Ltd. currently has an approved LSP for the Eglinton Neighbourhood Centre, with 2,500m¹ of retail space (Net Lettable Area – NLA) included in this approved plan. They are looking to potentially expand this retail centre to 3,250m² and want to understand the impact of expanding on the surrounding activity centre hierarchy.

Under the draft State Planning Policy 4.2 – Activity Centres (draft SPP 4.2): *'The Impact Test only applies to major development or out of centre development (see clause 7.10) as outlined in SPP 4.2 and shall be prepared to support the precinct planning or development application process for such proposals.* The proposed neighbourhood development's expansion is not a major development based on draft SPP4.2 guidelines as it would increase the net lettable floorspace to between 3,250²; however, it may impact the area's centre hierarchy. Pracsys has been engaged to undertake an Impact Test on retail floorspace to aid Cedar Wood's decision making, and to provide as evidence to the City of Wanneroo if required.

2.2 Impact Test Purpose and Objectives

According to the draft SPP 4.2 Activity Centre Strategy: *'Specifically, the Impact Test will ensure major development proposals will not unreasonably impact upon the activity centre hierarchy, result in loss of services to the community and/or impact upon existing, committed and planned public and private infrastructure investment.'* It states further that *'Competition between businesses in and of itself is not considered a relevant planning consideration.'* This means that decisions should not be based on the impact on, or viability of, individual tenants. Only the potential impact on the centres and the effects on the catchment community should be considered under an impact test.

This Impact Test follows the requirements of draft SPP 4.2 to provide an assessment of the impact of the Shop/Retail component of the proposed development on existing and planned activity centres, its impact on the centre hierarchy and economic and community benefits associated with the development.

The key objectives of this report are to:

- Define the trade area of the proposed development
- Estimate the population and retail demand
- Evaluate the competitive environment
- Assess the potential market impact of the proposed development
- Discuss economic impact and community benefits

¹ 2,500m² was based on the approved ASP area and the area of 'mixed use' land which abuts Eglinton Drive.



The findings of this report are intended to provide an independent understanding of the potential impacts of the development.

2.3 Gravity Model Methodology

Pracsys uses a proven retail gravity model methodology to examine the supply of and demand for retail floorspace within a defined catchment and estimate the potential impact of proposed retail developments.

The Retail Gravity Model (also known as Huff's Gravity Model) is a modified version of Sir Isaac Newton's Law of Gravitation. The Gravity Model is a popular model widely used in international trade modelling, transport modelling and regional planning. Retail Gravity modelling studies retail supply, and the probability of a customer (demand) visiting a particular centre. The model accounts for the distribution and attractiveness of competing centres, along with the distance a customer will have to travel to each centre. Floorspace quantum (m²) is used to represent the attractiveness of retail centres. Customers are willing to travel farther to shop at large centres, representing a higher level of attraction (they can generally satisfy multiple needs in one trip to a larger centre, which also contains a higher proportion of comparison goods).

The model provides an objective method of distributing expenditure among centres. Calibration is used to match the calculated distribution of expenditure to actual published turnover levels, optimising the model outputs. Having established a benchmarked current distribution of expenditure, new floorspace can be introduced and changes in expenditure distribution across time can be examined, allowing for various retail centre transformations such as planned expansions and new developments. This comprehensive approach creates a distribution of expenditure that is fundamentally unbiased, as it is based on mathematical rules. It is a widely used approach that has been accepted by the Department of Planning, Lands and Heritage and Western Australian Planning Commission (WAPC) through the review of a wide range of Structure Plans, Local Commercial Strategies and Retail Sustainability Assessments.² For more information on the gravity modelling methodology, please see **Appendix 1: Gravity Modelling Methodology**.

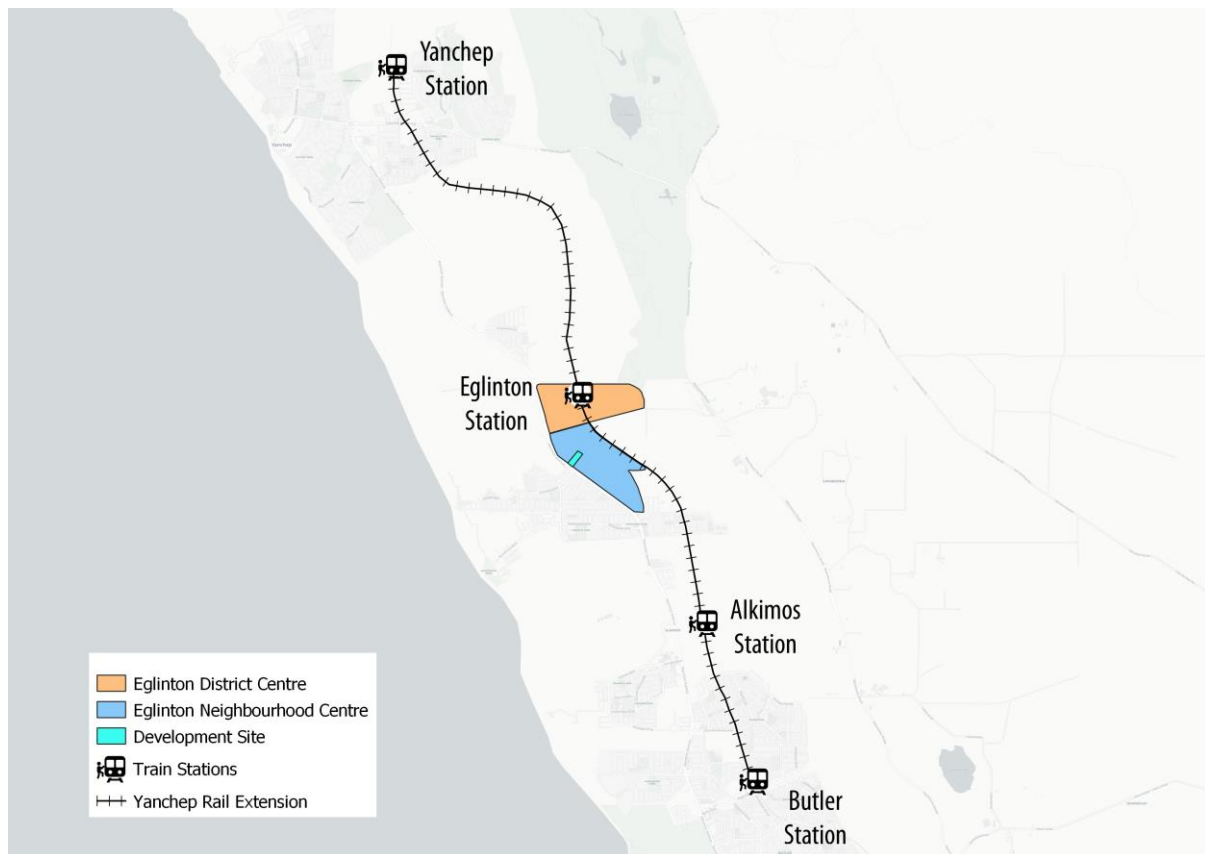
² For example, in April 2014, the West Australian Planning Commission approved the Melville City Centre Structure Plan, which proposed the expansion of the Garden City shopping centre. The RSA prepared by Pracsys in support of the application was based on gravity modelling. Please see Melville City Structure Plan 2015.

3 DEVELOPMENT CONTEXT

3.1 Site Location

The approved neighbourhood activity centre was identified in the Eglinton Local Structure Plan (ASP 82), with an approved 2,500m² retail area adjacent to the Marmion Avenue and Cinnebar Drive intersection. The neighbourhood development itself has a total area of 1ha approved and is bordered by the planned and approved Eglinton District Centre to the North, and a range of residential developments in various stages from planned to currently under construction, directly to the North, West, South and Southeast.

Figure 1. Subject Site Context



Source: Google Maps 2022, Pracsys 2022

The subject site is centrally located in the Alkimos & Eglinton development area which includes a mix of approved residential and retail developments. These regions are critical in the highly competitive north west coastal corridor developments currently underway. Although not all the approved estates are currently in development, several of the estates have made significant progress, including Amberton, Shorehaven and East of the Beach. All of these progressing developments border the planned Neighbourhood Centre. The development of these sites, specifically the population-driven demand they will create and retail floor space which they may include, have been considered in the creation of this model.

3.2 Proposed Development

Cedar Woods provided detailed estimates of potential floorspace expansion for the development. The supplied floorspace plans were analysed to identify the types of uses and the total size of those uses. The uses have been aligned with the relevant Planning Land Use Category (PLUC) to identify those relevant to this analysis (Figure 2).

The SPP 4.2 (2010) states that NLA includes all floors in the internal finished surfaces of permanent walls, however it excludes areas such as lobbies between lifts, service areas, public spaces/thoroughfares and spaces used for the provision of servicing the floor or building amongst a range of others. It is not clear what proportion of the back of house would count towards the NLA based on these exclusions, therefore we have omitted it.

Figure 2. Proposed Development Uses

| Proposed Use | Net Lettable Area (m ²) | Relevant PLUC |
|------------------------------|-------------------------------------|---------------|
| Approved Retail Space | | |
| Mix of Retail Space | 2,500 | Shop/Retail |
| Proposed Expansion | | |
| Supermarket (excl. BOH) | 2,400 | Shop/Retail |
| Liquor Retail | 200 | Shop/Retail |
| Food & Beverage | 145 | Shop/Retail |
| Specialty Retail | 455 | Shop/Retail |
| Kiosk | 50 | Shop/Retail |
| Total NLA | | 3,250 |

Source: Cedar Woods 2022

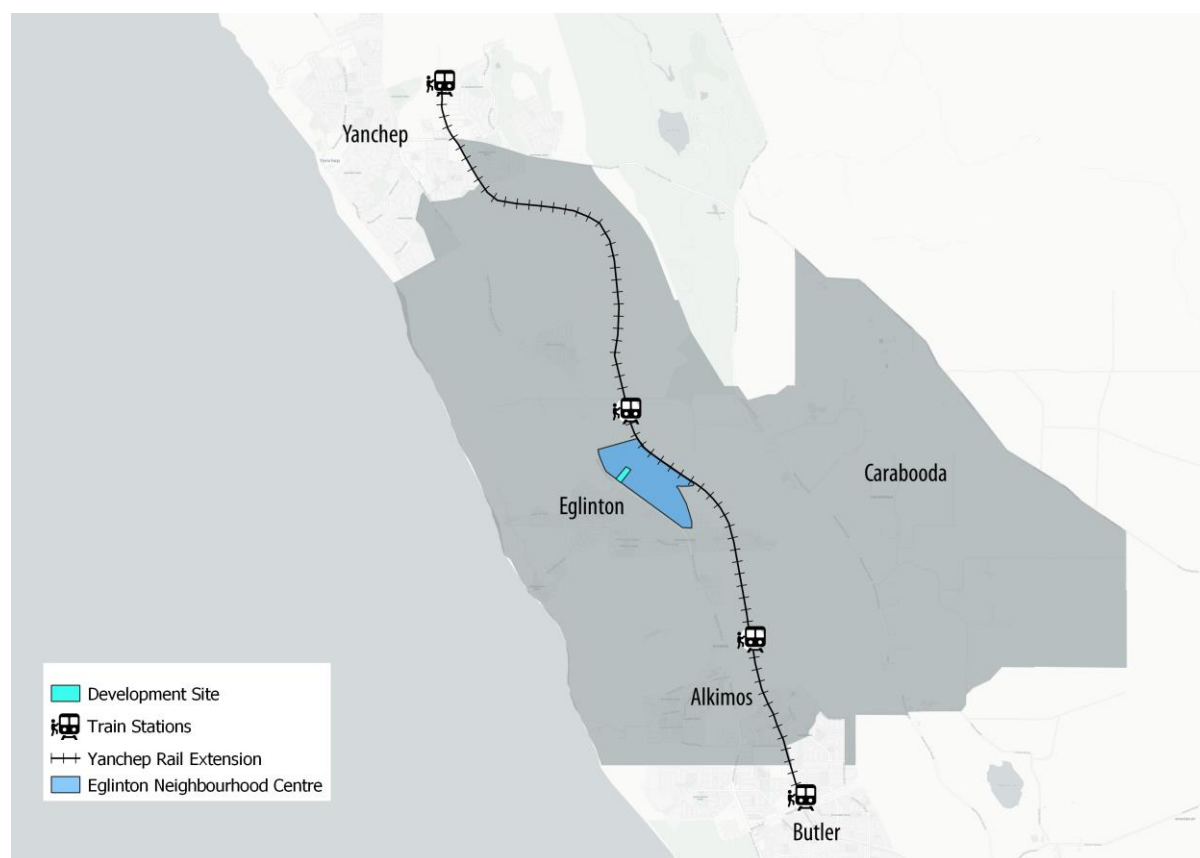
The quantum of floorspace and mix of uses are used to estimate the potential impact of the proposed expansion.

3.3 Trade Area Definition

A trade area is the spatial boundary from which a commercial floorspace generates the majority of its customers. The trade area definition allows for the measurement of the number of potential customers, their demographics and expenditure potential, as well as an assessment of the competitive environment.

Draft SPP 4.2 states that neighbourhood centres provide for the day to day and some weekly needs of local communities, playing an important role in the activity centre hierarchy by providing walkable access to services and facilities for local communities. The modelled trade area of the prospective centre is comprised of a five-kilometre catchment area. The 5km catchment is used in the gravity model and ensures that all centres which could reasonably influence the viability of the prospective centre are included in the Impact Test (Figure 3). All demand and supply within the trade area is included in the modelling.³

Figure 3. Modelled Trade Area of Prospective Development



Source: Google Maps 2022, Pracsys 2022

The modelled trade area encompasses Eglinton and North Alkimos, with Yanchep to the north and Pearce to the south and east. The supply catchment extends up to five kilometres from the centre and includes retail centres such as The Gateway Alkimos, Trinity Village, Butler Boulevard and several future retail developments

³ Some of the population in the south section of the trade area is less likely to visit the proposed site. This has been accounted for in the modelling by allocating appropriate amounts of turnover to centers in this area.



that may impact Eglinton's district and neighbourhood centres (see Figure 8. Trade Area Retail Supply Network Current and Emerging for an illustration of the trade area's competitive environment). The site's location adjacent to Marmion avenue will capture high levels of passing traffic going further north into Eglinton and Yanchep, in addition to potentially being the first retail development in the Eglinton and upper Alkimos areas, with the nearest being The Gateway, 4.1 km south of the subject area (see Figure 8. Trade Area Retail Supply Network Current and Emerging).



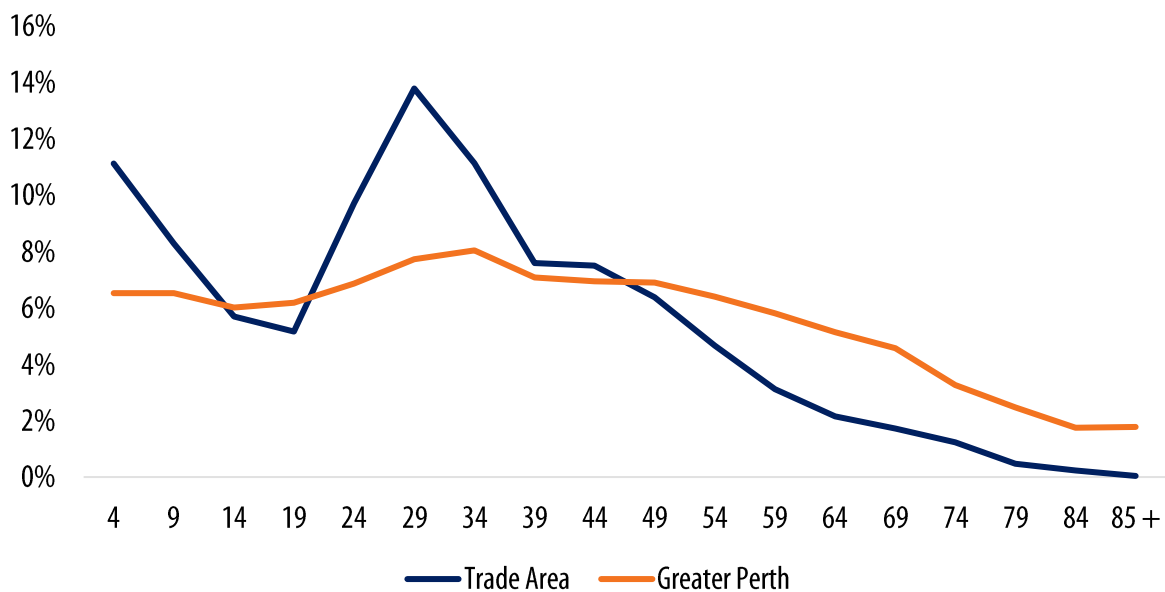
4 RETAIL DEMAND

Understanding local demographics and expected market growth is key in the assessment of the market impact of the proposed development in the defined trade area. This section provides an overview of demographics, current and future dwellings and the expenditure profile of the trade area including relevant user groups.

4.1 Age Profile

The trade area has a different demographic profile to the Greater Perth benchmark with a higher proportion of 0 to 4 and 19 to 39 year-olds and a lower proportion of 49 to 85 year-olds and over. (Figure 4). This reflects that the trade area is comprised of a higher concentration of young families that are making long term investments to live in the region. The high proportion of 24-39 age group may also reflect a large amount of day labourers living in the region given the amount of construction work both planned and underway.

Figure 4. Trade Area Demographic Profile



Source: ABS 2016, Pracsys 2022

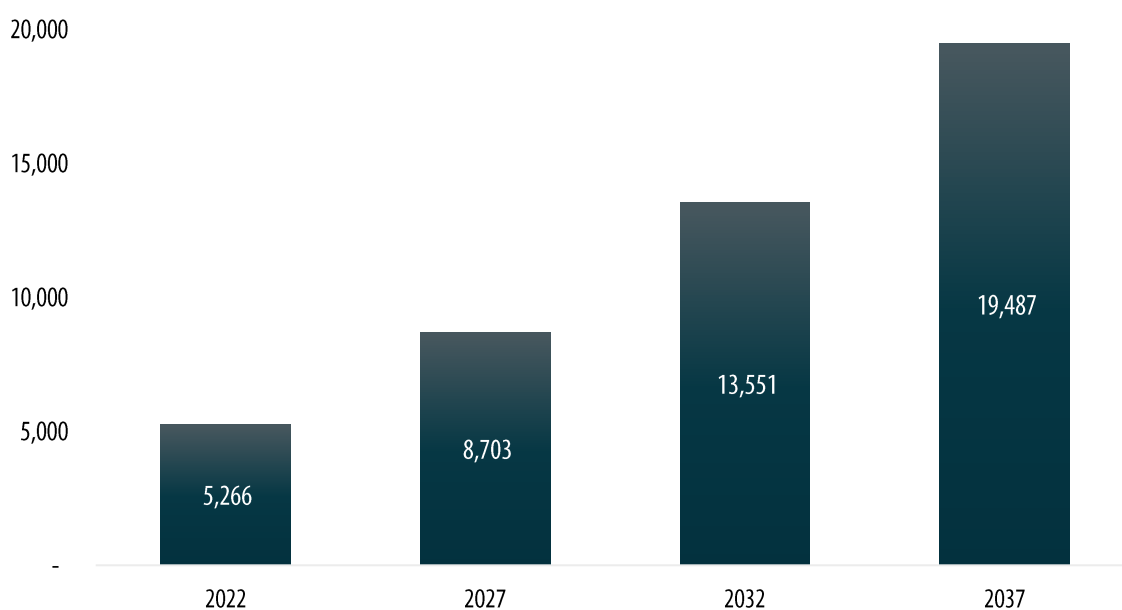
Families tend to spend more on retail goods and services and have some specific non-retail requirements that can be supported in neighbourhood centres such as Child Care.



4.2 Trade Area Dwellings

The trade area of the proposed development is estimated to contain 5,266 dwellings in 2022 (Figure 5).⁴ Based on dwelling growth forecasts, the number of dwellings in the trade area is expected to grow to 8,703 by 2027, reflecting a forecast increase in dwellings of 65 per cent. By 2032, the number of dwellings in the trade area is projected to reach 13,551, reflecting a 157 per cent increase from the estimated 2022 level. Dwelling growth increases the overall demand available for retail in the area for both the Eglinton District and Neighbourhood centres. These estimates have been developed using data from Forecast Id with sense checking against known developments and lot uptake. Forecast Id allowed a more conservative model to be created when compared to WA Tomorrow which provided population forecasts at large spatial areas. Population growth should be checked in the future to understand accuracy of the estimates provided.

Figure 5. Trade Area Dwelling Growth Forecast



Source: Forecast Id 2016, Pracsys 2022

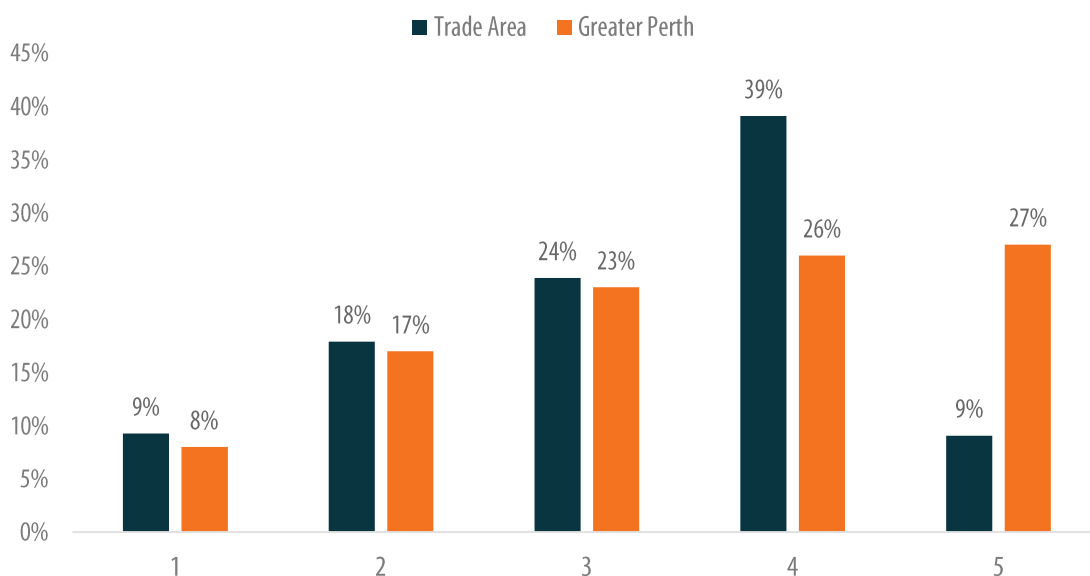
4.3 Trade Area Income

Income demographics in a trade area play an important role in the success of retail developments, as the level of spending on retail goods and services is primarily determined by household income. Generally, lower income quintiles spend a higher proportion of their income on basic goods and services; upper income quintiles have more disposable income available to spend on non-essential retail items. ABS Census data has been used to assess the distribution of household income within the trade area (Figure 6).

⁴ Data from Forecast Id was used the 2022 number of dwellings in the catchment, which were validated by aligning with total lot yields and average sales for estates, provided by Cedar (Urbis, March 2022).



Figure 6. Trade Area Population Weekly Income Profile



Source: ABS 2016, ABS HHES Survey 2015/2016, Pracsys 2022

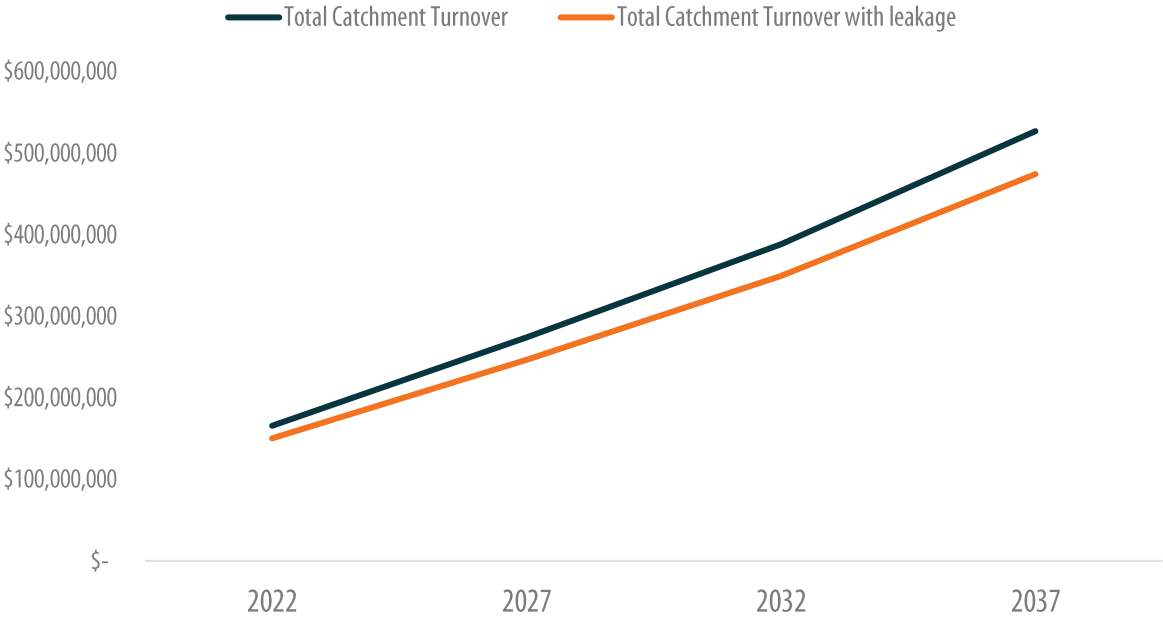
Incomes in the trade area deviate from the Greater Perth benchmark significantly in the fourth and fifth quintiles. There is a lower portion of households in the fifth by -18% (9% versus 27%), and a 13% increase in the fourth quintile (39% versus 26%), with the other quintiles only deviating by a single percent. Overall, the income breakdown indicates that residents of the Study Area have an average household income slightly lower than that of the Greater Perth area, likely reflective due the abundance of younger families in the area. It is likely that the catchment will spend a greater proportion of its expenditure on convenience goods such as groceries.

4.4 Retail Expenditure

ABS Household Expenditure Survey data was used to estimate the average spend per household by income quintile, from which the total expenditure pool of the catchment has been derived. The model combines propensity to spend on commodities based on household income quintiles to derive the total Shop/Retail expenditure in the area. Given projected household growth, Shop/Retail expenditure is estimated to increase from \$165 million in 2022 to \$382 million in 2032, reflecting growth of 131 per cent (Figure 7). By 2037, trade area shop-retail expenditure is predicted to reach \$521 million – an increase of 215 per cent from current levels. The significant increase in Trade Area expenditure reflects the immense increase of residential dwellings in the Trade Area. Some of this turnover is projected to be lost to online leakage; however, this is expected to be less prominent with respect to convenience retail than other types, such as comparison retailing. The effect of online leakage on the viability of the proposed development is expected to be minimal.



Figure 7. Trade Area Shop/Retail Expenditure Pool, 2022 to 2037



Source: ABS Census 2016, Pracsys 2022



5 RETAIL SUPPLY

5.1 Current Supply

This section provides an overview of the competitive environment facing the proposed development at Lot 801 Marmion Avenue, Eglinton. Being a neighbourhood centre, the proposed centre is likely to compete with those centres in close proximity, particularly the Eglinton District Centre.

Existing retail floorspace supply within the trade area has been derived through data from multiple sources, including:

- The Department of Planning Land Use Survey (2015/17)
- Property Council Shopping Centre Directory (2021)
- Secondary Research (various structure plans, property manager websites, etc.)

Currently there is only a single centre with Shop/Retail floorspace within five kilometres of the proposed development, The Gateway Alkimos. Two additional retail centres to the south were included in the analysis to ensure a comprehensive assessment of current retail supply. These centres are highly likely to capture residents that travel north from work into the Eglinton area. The selection of centres within the supply network is illustrated below (Figure 8). Aside from the currently established centres, we have also considered approved centres plans for the Alkimos & Eglinton area between now and 2040. We have included them to ensure our analysis is conservative; it should be noted however that the opening of all these centres in the analysis time period is considered unlikely. These centres are listed in figure 10 below. The trade area and surrounding area are planned to include a wide range of retail offerings, from Strategic and District centres such as the future Yanchep strategic centre, the planned Alkimos secondary centre and the previously mentioned Eglinton District centre to various neighbourhood and local level centres.

Figure 8. Trade Area Retail Supply Network Current and Emerging⁵



Source: DPLH Land Use and Employment Survey 2015/17, Google Maps 2022, Pracsys 2022

The total current Shop/Retail offering within the 5km trade area and surrounds has been estimated at 28,409m² (Figure 9).

Figure 9. Trade Area Shop-Retail Floorspace Supply 2022

| Centre | Shop-Retail Floorspace (m ²) |
|--|--|
| On the Map | |
| Butler Central | 17,309 |
| The Gateway Alkimos | 7,600 |
| Trinity Village | 3,500 |
| Total Floorspace (including off map floorspace) | 28,409 |

Source: DPLH Land Use and Employment Survey 2015/17

5.2 Expansions and Planned Developments

There has been an increase in the number and scale of planned retail expansions since the State government has relaxed its restrictions on retail floorspace development in 2010. A desktop analysis and review of planning documentation provided by Cedar Woods and made available by the City of Wanneroo was undertaken to

⁵ Please note that the Yanchep strategic and district centres have not been included in the modelling, and are only included in the map to give an understanding of the wider retail context for the Eglinton area.



identify any planned future Shop-Retail floorspace developments within the trade area and surrounds and dates for their expected completion. There are a number of local centres approved for the area that are likely to provide varying offerings to meet the daily shopping needs of residents. While development years have been included, the development timeframes for these centres will vary based on the uptake of more localised residential development. Their inclusion ensures the impact of the proposed expansion is considered across the activity centre hierarchy.

Figure 10. Expansions and Planned Developments

| Centre | Shop-Retail Floorspace (m ²) |
|--|--|
| On the Map | |
| Eglinton District Centre (EDC) | |
| EDC 1 – Stage 1 (2025) | 10,600 |
| EDC 2 – Stage 2 (2030) | 20,000 |
| Eglinton Neighbourhood Centre (ENC) | |
| ENC – Approved | 2,500 |
| ENC - Proposed | 3,250 |
| Future Proposed Centres | |
| The Village Shorehaven (2025) | 1,000 |
| Alkimos Coastal Node (2030) | 5,650 |
| Alkimos Vista Centre (2030) | 500 |
| Allara Village Centre (2030) | 1,200 |
| Amberton Centre (2025) | 900 |
| Alkimos Secondary Centre (2040) | 111,528 |
| Total Future Floorspace (in 2025) | 44,159 |
| Total Future Floorspace (in 2030) | 60,409 |
| Total Future Floorspace (in 2040) | 97,034 |

Source: Eglinton Market Forecasts (2022) & Eglinton Retail Market Analysis (2022), Supplied by Cedar Woods

6 IMPACT OF THE POTENTIAL DEVELOPMENT

This section provides an impact assessment caused by the proposed expansion of the ENC on the surrounding network of retail centres as prescribed in **Section 4 Retail Supply**.

Gravity modelling has been used to determine the impact on centres throughout the network. The modelling allows the user to estimate the level of impact through a probability function based on the attractiveness of a centre and its distance from households. For example, if a new shopping centre opens, it is possible to estimate the redistribution of household spending that would occur from such an addition. The model accounts for population growth in the network to estimate current and future levels of turnover at the centres in question.

6.1 Key Assumptions

The key assumptions used in assessing the retail impacts of the ENC are as follows:

- The ENC is assumed to be operational in 2025
- The ENC will operate at its benchmark productivity level in 2025 & 2030
- The Stage 1 EDC will be operational in 2025, with Stage 2 operational in 2030
- It is assumed that the ENC and EDC will achieve viable turnover productivity levels in 2025
- The assumed retail uses for the ENC expansion are as per **Section 3.2 Proposed Development**
- Only the proportion of the turnover which will be drawn from 'basket' customers coming from trade area will be included in the impact analysis
- Population and spending growth as detailed in the **Section 3.2 Retail Expenditure**
- The competitive environment is assumed to be as stated in **Section 4 Retail Supply**

6.2 Model Calibration

Real turnover data is used where possible to calibrate the Gravity Model. The Butler Boulevard Centre was the only centre for which there was publicly available turnover data (Figure 11).

Figure 11. Centre Turnover Data

| Centre | Turnover (\$) | Estimated % Trade Area |
|-------------------------|---------------|------------------------|
| Butler Boulevard Centre | 73.5 million | 40% |

Source: Property Council 2021

Total turnover drawn from the Trade Area is adjusted based on the estimated proportion of turnover that a centre would likely draw from the Trade Area. Where no publicly available data was available, the turnover of current centres was calibrated using average floorspace productivity data benchmarks (Figure 12).

Figure 12. Benchmark Floorspace Productivity by Retail Category

| Retail Category | Productivity (\$/m ²) |
|--------------------|-----------------------------------|
| Take Home Food | 10,749 |
| Take Home Liquor | 9,674 |
| Dine Out Food | 6,987 |
| Clothing/Footwear | 5,374 |
| Convenience Retail | 7,524 |
| Bulky Goods Retail | 5,912 |

Source: Colliers 2017, Pracsys 2022, WA Treasury 2022

6.3 Benchmark Productivity Levels for the ENC and EDC

Benchmark viability levels for turnover and productivity were calculated using floorspace plans provided by Cedarwoods for the proposed expansion. These benchmark productivities have been used to assess the viability of the ENC at difference points in time (Figure 13).

Figure 13. Benchmark Productivity for Viability Comparison 2025

| Benchmark | Floorspace Breakdown (m ²) | Turnover (\$) | Productivity (\$/m ²) |
|--------------|---|---------------|-----------------------------------|
| Expanded ENC | Supermarket (2,400) Liquor Retail (200) Convenience Retail (505) Dine Out Food (145) | 32,168,935 | 9,898 |
| EDC Stage 1 | Supermarket (7,800) Other Retail (2,800) | 104,909,400 | 9,897 |

Source: Eglinton Neighbourhood Centre Concept Plan 2022, Pracsys 2022

The productivity applied to the EDC is conservatively high based on the inclusion of 7,800m² of supermarket floorspace; the equivalent of two full-line supermarkets. A centre of this size would generally only have one supermarket and a discount department store as anchors or perhaps one full line supermarket and a small secondary supermarket (i.e. Aldi).

6.4 Gravity Modelling Impacts

Market Share

The impact is calculated using the estimated floorspace productivity associated with the expansion of the ENC in 2025, with an additional check on impact on the EDC Stage 2 in 2030. In 2025 the proposed development is expected to turnover approximately \$32 million, an increase of approximately 31% from the baseline. Turnover relative to the catchment's total Shop/Retail expenditure is low to moderate, making up approximately 16% of total catchment turnover; an increase of 4%. It should be noted that at in 2025, should all planned development occur, there will only be a District Centre, three Neighbourhood Centres (two of which are at the border of the Trade Area) and two Local centres for the entire 5km Trade Area.

Impact Assessment

Turnover impact represents the reduction in a centre's turnover resulting from new competition. Two scenarios are modelled, one with the proposed expansion and one without.

Impact Assessment Steps⁶

- Define first year of proposed development operation; estimated to be 2025
- Model shop-retail turnover for all centres, including expansions and new centres, in 2025
- Include proposed development shop-retail floorspace in model for years 2025 & 2030
- Model shop-retail turnover for all centres including proposed development in 2025 & 2030
- Calculate the change in shop-retail turnover for all centres in 2025 and analyse change by 2030
- Include expanded Stage 2 EDC in 2030 and assess turnover productivity compared to 2025 Stage 1 baseline results
- Estimate % change in shop-retail turnover for each centre and compare to draft SPP4.2 impact levels and how they change over time

The turnover impact represents the reduction in a centre's turnover resulting from new competition. The impact of the ENC expansion to 3,250m² has been modelled in 2025 & 2030 to understand how the ENC will impact stage 1 and stage 2 of the EDC. The predicted productivity for the EDC is then compared to a baseline productivity figure to estimate the impact that expanding the ENC will have on the EDC given their respective floorspace.

The impact on individual centres will depend on many factors, including current performance levels, the degree of dependence of one store on another and the competitive response. The impact assessment is therefore representative and an indication of likely turnover declines.

The Impact Test follows the requirements of draft SPP 4.2 to provide an assessment of the impact of the proposed development on the existing and planned activity centres, its impact on the centres hierarchy and

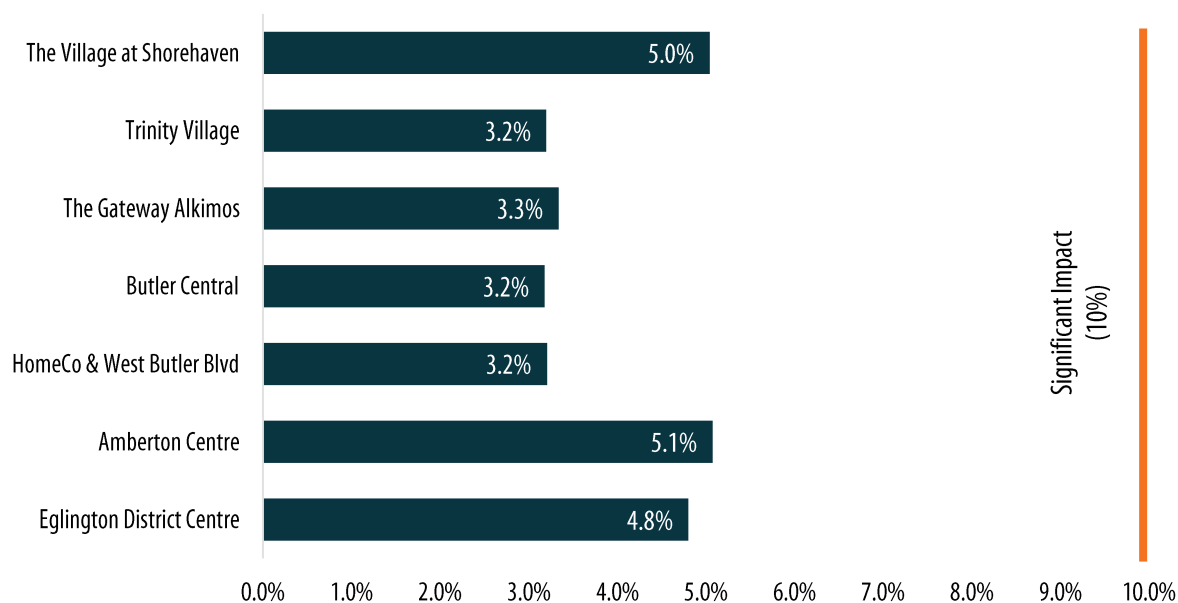
⁶ For more details on Gravity Modelling specifically, please see Section 9, Appendix 1: Gravity Modelling Methodology



economic and community benefits associated with the development. Draft SPP4.2 provides impact ranges to guide assessment with impacts between 0 – 4.9% being non-significant, 5 - 9.9% being moderate and those over 10% being significant.

An expanded ENC would have an insignificant impact on EDC productivity (4.8%) with all impacts being below the moderate level, with the exception of The Village at Shorehaven (5%) and Amberton Centre (5.1%) which will be moderately impacted (Figure 14).

Figure 14. Selected Centres – Turnover Impact 2025



Source: Pracsys 2022

There is significant population growth expected to 2030 and all centres achieve increases in productivity levels of approximately 30% – 40% over baseline levels; demonstrating the limited impact of the proposed expansion in the long term (Figure 15).

Figure 15. Turnover Impacts in 2025 & 2030

| Centre | Change in turnover from 2025 Baseline (%) | |
|---------------------------|---|--------------|
| | 2025 | 2030 (EDC 1) |
| Eglinton District Centre | -4.8% | 34.7% |
| Amberton Centre | -5.1% | 43.1% |
| HomeCo & West Butler Blvd | -3.2% | 28.6% |
| Butler Central | -3.2% | 29.2% |
| The Gateway Alkimos | -3.3% | 28.5% |
| Trinity Village | -3.2% | 27.8% |
| The Village at Shorehaven | -5.0% | 29.3% |

Source: Pracsys 2022



The Stage 2 EDC achieves a turnover productivity of \$9,132 in 2030. This equates to a 7.1% reduction in productivity from the Stage 1 EDC baseline; however, this change in productivity is related to the increase in Shop/Retail floorspace (as can be seen by the significant increase in turnover achieved by the Stage 1 EDC in 2030, Figure 15). This reflects the change in mix of uses to include a greater component of non-supermarket uses; the proposed expansion does not impact the ability of the EDC to expand to its Stage 2 size.

Competitive Response

Whether actual impacts on retail centres are similar to estimated impacts largely depends on the competitive response. The competitive response is usually targeted at improving the foot traffic and therefore turnover of a centre and can be affected at a centre level or an individual tenant level. At the centre level, the response can include but is not limited to: centre refurbishment and redevelopment, tenancy re-mixing and marketing events. At the tenant level, the response may involve store refurbishment, improving the level of customer service, improving in-store management, advertising, and pricing. How competitors respond will naturally affect the level of impact that is experienced because of the proposed development. All these factors have a potential to significantly reduce the impact of the proposed development at the ENC.



7 IMPACT ON COMMUNITY

7.1 Economic Benefits

The proposed expansion of the ENC will provide ongoing employment benefits resulting from operations of the proposed retail offerings. It is estimated the proposed expansion will support an additional 30 Full Time Equivalent (FTE) direct jobs locally and 23 indirect jobs in the broader economy based on the additional 750m² of Shop/Retail floorspace. Some of this employment will be a transfer from within the trade area while some will reflect new employment opportunities for locals.

7.2 Community Benefits

The proposed development will support walkable access to Shop/Retail uses for the significant population being supported by neighbouring residential developments. The proposed development will offer a variety of different retail offerings and encourage healthy competition in the area, all of which will benefit customers. This creates balance and equity of access as larger numbers of people can access the goods and services they desire in a timelier fashion.

The proposed development aligns with objectives in the draft SPP4.2. Specifically, it provides access to daily shopping needs for future residents within a walkable catchment, reducing the need for private car trips. It is also located along Marmion Ave, providing convenient access for residents along a primary route with adjacent bus stops.

The proposed ENC expansion allows the objectives identified above to be more sufficiently met, providing appropriate activity centre uses next to a public open space to create a liveable community and address Local and State planning objectives.

The benefits associated with the proposed development are likely to be a welcome addition from both an economic and community benefit perspective by providing employment, reducing travel time, providing variety, encouraging healthy competition, and creating a case for equitable access.

The proposed expansion does not generate the need for any additional infrastructure to achieve these to that which has been planned for the neighbourhood centre to date. The network of roads, pedestrian/cycling infrastructure, public transport and utility services as planned are adequate to accommodate the proposal without change, allowing for its benefits to be achieved as no additional infrastructure cost.



8 CONCLUSION

This report assessed the impact of expanding of the Eglinton Neighbourhood Centre retail centre from 2,500m² to 3,250m². There is significant growth in retail demand predicted for the developing Eglinton area with several residential developments. The proposed expansion does not generate the need for any additional infrastructure to that which has been planned for the neighbourhood centre to date. The network of roads, pedestrian/cycling infrastructure, public transport, and utility services as planned are adequate to accommodate the proposal without change.

Modelling has shown that the estimated impacts are predominantly insignificant and well below the 10% significant impact threshold; the sustainability of the centre hierarchy will be preserved. In 2025 the 4.8% turnover impact on the EDC is defined as non-significant under the SPP 4.2 Implementation Guidelines, meaning that it won't unreasonably impact the delivery of an activity centre to support the Eglinton Train Station. By 2030 all centres achieve significant productivity increases through population growth, mitigating any impact. Several factors contribute to this finding, including:

- The ENC expansion is small and does not materially increase the attractiveness of the centre, nor the activity centre hierarchy
- The expansion provides the additional floorspace to support surrounding residents without changing its categorisation as a neighbourhood centre.
- The ENC and EDC are surrounded by residential developments that are currently undersupplied
- There is significant growth expected in the Alkimos-Eglinton Area generally
- The ENC and EDC will have similar trade areas but meet different roles in serving the local community
- There is significant growth in retail demand predicted for the developing Eglinton area with several residential developments

The proposed Shop/Retail expansion aligns with draft SPP4.2 objectives and can be recommended for approval.

9 APPENDIX 1: GRAVITY MODELLING

METHODOLOGY

Gravity models allow for the measurement of spatial interaction as a function of distance to determine the probability of a given customer shopping at 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 floorspace 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 16.

Figure 16. Gravity Model Probability Formula

$$P_{ij} = \frac{\frac{A_{jk}^a}{D_{ij}^\beta}}{\sum_{j=1}^m \frac{A_{jk}^a}{D_{ij}^\beta}}$$

P_{ij} = Probability of customer living/working in statistical area i shopping at complex j.
 A_i = Area of floorspace in centre, j in square metres, according to the type of supply, k.
 D_{ij} = Distance between statistical area of households, i and complex j.
 a = Area exponent
 β = Distance exponent
 k = Type of supply or expenditure, either Convenience or Comparison
 i = Statistical area ($i=1, \dots, n$)
 j = Complexes ($j=1, \dots, m$)

Source: Carter, C (1993) 'Assumptions Underlying the Retail Gravity Model', *Appraisal Journal*, Vol 61, No 4, pp510; Pracsys (2020)

Figure 17. 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, pp510; Pracsys (2020)

Figure 17 shows that the demand for retail category k⁷, at centre j, 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 customer from particular statistical area attending the centre multiplied by the expenditure pool of that statistical area. The expenditure pool is derived through the population multiplied by its 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; or
- 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).

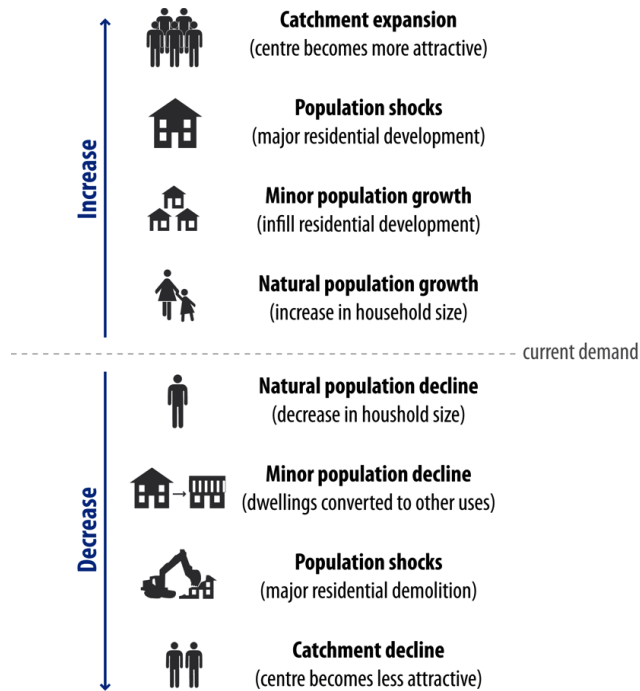
9.1 Drivers of Retail Floorspace Supply and Demand

Demand changes can result in increased or decreased expenditure. The potential causes of demand changes are shown in Figure 18. These largely show that an increasing population increases demand, and vice versa. There are significant amounts of commercial floorspace, especially office floorspace, flagged for the central sub-region of Perth and beyond. There will also be significant numbers of new dwellings provided across Perth. This increase in residents has the potential to boost demand for goods and services in the area.

Demand can also increase from rising incomes, or wealth, because people have more disposable income to spend on retail. Demand can also be increased by reducing leakage. Leakage for retail is largely caused by online retail, as well as travelling.

⁷ Retail categories are determined by their PLUC code and whether they are convenience or comparison goods. Convenience goods are day-to-day items such as groceries, pharmaceuticals and fast food. Comparison goods are items where consumers are willing to travel further distances, and are bought less frequently such as clothing, furniture, electronics, or other household items.

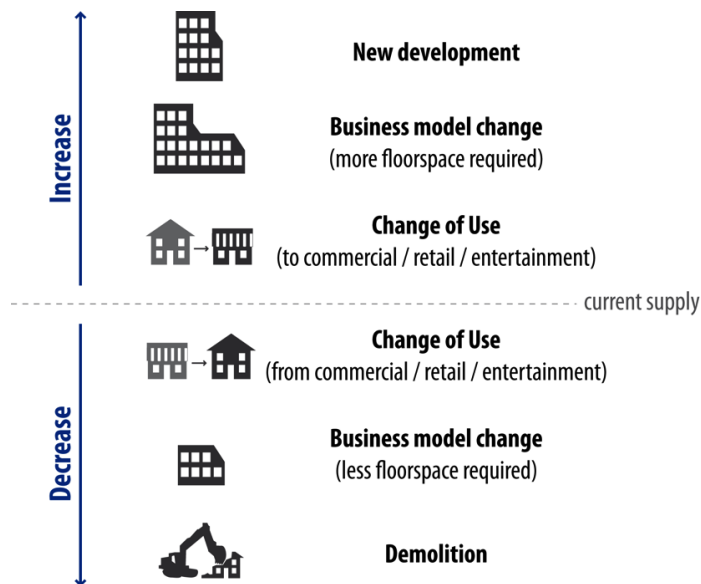
Figure 18. Drivers of Retail Floorspace Demand



Source: Pracsys 2020

Supply changes can result in increased or decreased retail floorspace. The potential causes of supply changes are shown in Figure 18.

Figure 19. Drivers of Retail Floorspace Supply



Source: Pracsys 2020