Build Plus Group Pty Ltd

Lot 9501 Gaebler Road, Hammond Park

Report

October 2023

1 INTRODUCTION

1.1 Background

This report provides a Retail Needs Assessment (RNA) and Net Benefit (NB) Test for the proposed development at Lot 9501 Gaebler Road, Hammond Park to consider the balance of future demand and supply for Shop/Retail (SHP) floorspace[1] and the impact of the centre on the retail hierarchy. Build Plus Group has engaged Pracsys to undertake the RNA and NB Test to estimate the level of SHP floorspace which would be supportable at the centre, with consideration of the surrounding activity centre distribution and future population growth.

1.2 Retail Needs and Net Benefit Test Purpose and Objectives

According to the State Planning Policy 4.2 Activity Centre 2023 (SPP4.2): '*The need for activity centre uses refers to the scale and mix of residential and non-residential uses likely to be needed within a catchment area over the plan period (10 years for Precinct Structure Plans).'*

The RNA measures demand for the area and identifies the scale of supply necessary to appropriately accommodate this demand in square metres Net Lettable Area (NLA).

This needs assessment follows the requirements of SPP4.2 Implementation Guidelines to consider and assess demand for activity centres uses as well as the net impacts on the centre hierarchy and economic and community benefits associated with the development. The assessment should be based on facts and unbiased evidence[2].

The key objectives of the report are to:

- Define the catchment area of the proposed development application request
- Review drivers of floorspace, including forecast population growth and socio-economic characteristics, employment and changing expenditure patterns
- Evaluate the competitive environment including existing and planned floorspace supply (including expansions and new developments)
- Develop a net demand assessment
- Assess the level of Shop/Retail floorspace supportable at the site
- Assess the potential market impact of the proposed development
- Discuss economic impact and community benefits

[1] This analysis uses Department of Planning, Lands and Heritage Planning Land Use Categories (PLUCs) to model Shop/Retail floorspace in alignment with SPP4.2 NB Test requirements. The Shop/Retail PLUC is relatively broad and encompass the proposed uses of service station and fast food at the subject site. It should be noted that no 'Shop' uses, as defined by the City of Cockburn Local Planning Scheme No: 3, are being proposed. See Section 2.4.

[2] SPP4.2 Implementation Guidelines

1.3 Gravity Model Methodology

Pracsys uses a retail gravity model to analyse the supply of and demand for retail floorspace within an estimated 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 and is 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 each of a network of centres. The model accounts for the distribution and attractiveness of competing centres, along with the distance customers will have to travel to each centre. Floorspace quantum (m^2) 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. To optimise the predictive accuracy of the model, the calculated distribution is calibrated to match published turnover levels for each centre in the network. Having established a baseline 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 explicit 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.[3] For more information on the gravity modelling methodology, please see Appendix 1: Gravity Modelling Methodology.

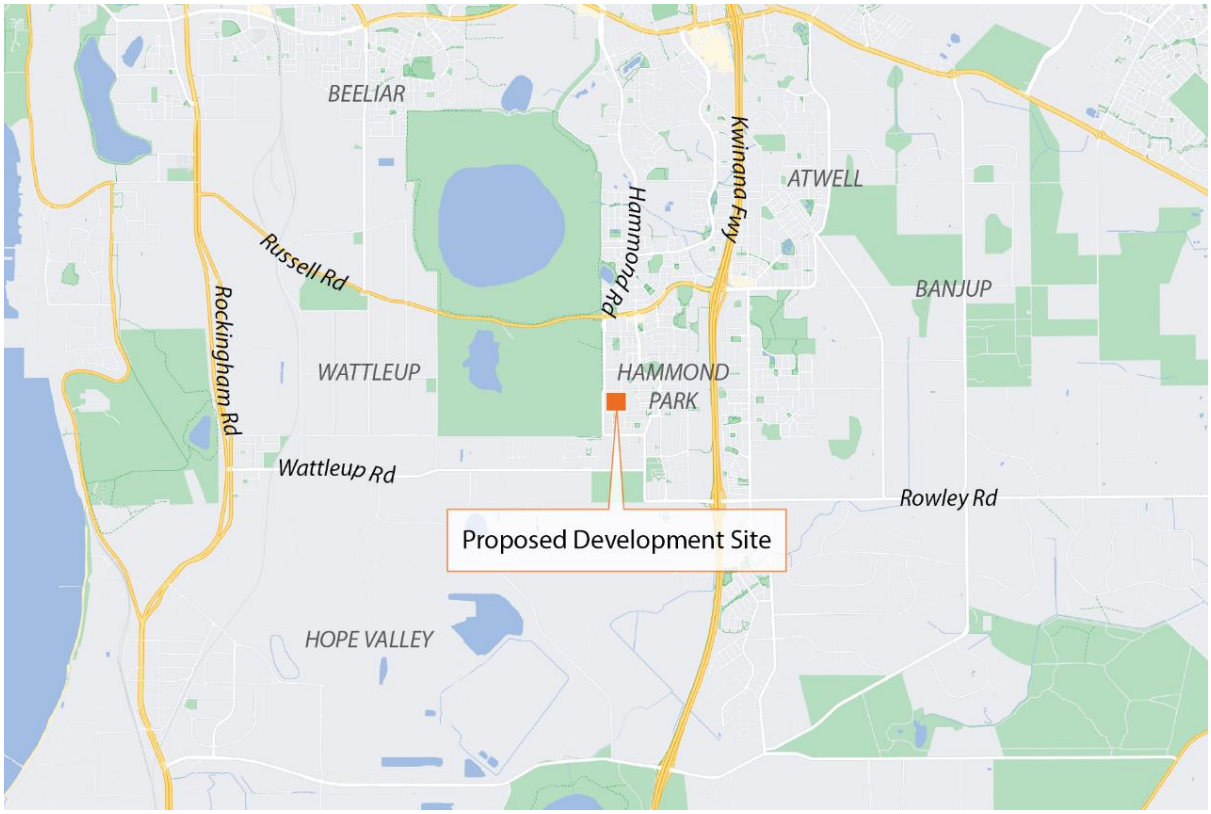
[3] For example, in April 2014, the West Australian Planning Commission approved the Melville City Centre Structure Plan, which proposed the expansion of the Garden City shopping Centre. The RSA prepared by Pracsys in support of the application was based on gravity modelling. Please see Melville City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

2 DEVELOPMENT CONTEXT

2.1 Site Location

The subject site is located at the intersection of Gaebler Road and Hammond Road. The lot is bordered by Hammond Park Primary School to the north, Harry Waring Marsupial Reserve to the west, and multiple current residential developments to the east and south. Hammond Road serves as the connecting route to Cockburn Central to the north and will be extended to the south as further residential development occurs. The following map identifies the approximate location of the proposed development (Figure 1).

Figure 1. Subject Site Context



Source: Pracsys 2023

The site is located within an area that is zoned as development, predominately residential in nature. Several planned retail developments within the subject site catchment are accounted for in modelling to understand the demand for the proposed uses from the expected population within that catchment.

2.2 Trade Area Definition

A trade area is the spatial boundary from which commercial floorspace generates most 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.

SPP4.2 states that local centres provide for the day-to-day 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 that could reasonably influence the viability of the prospective centre are included in the RNA and NB Test (Figure 2).

Figure 2. Estimated Trade Area



Source: Pracsys 2023

The modelled trade area encompasses Wattleup to the west, Mandogalup to the south, Success and Atwell to the north, and Aubin Grove to the east. The supply catchment extends up to five kilometres from the centre and includes shopping centres such as Cockburn Gateway (see Figure 9 for an illustration of the trade area's competitive environment). The site's location along Hammond Road provides high levels of passing traffic that will increase the level of supportable floorspace, particularly once nearby residential developments are

completed. The proposed retail uses include takeaway food which will capture passing traffic and have a wider catchment then local convenience uses.

2.3 Project Description

Build Plus Group provided detailed estimates of floorspace uses 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 3). Gross Floor Area (GFA) has been recalculated to NLA as a requirement of the RNA and NB Test. SPP4.2 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. NLA has been estimated as 90% of GFA.

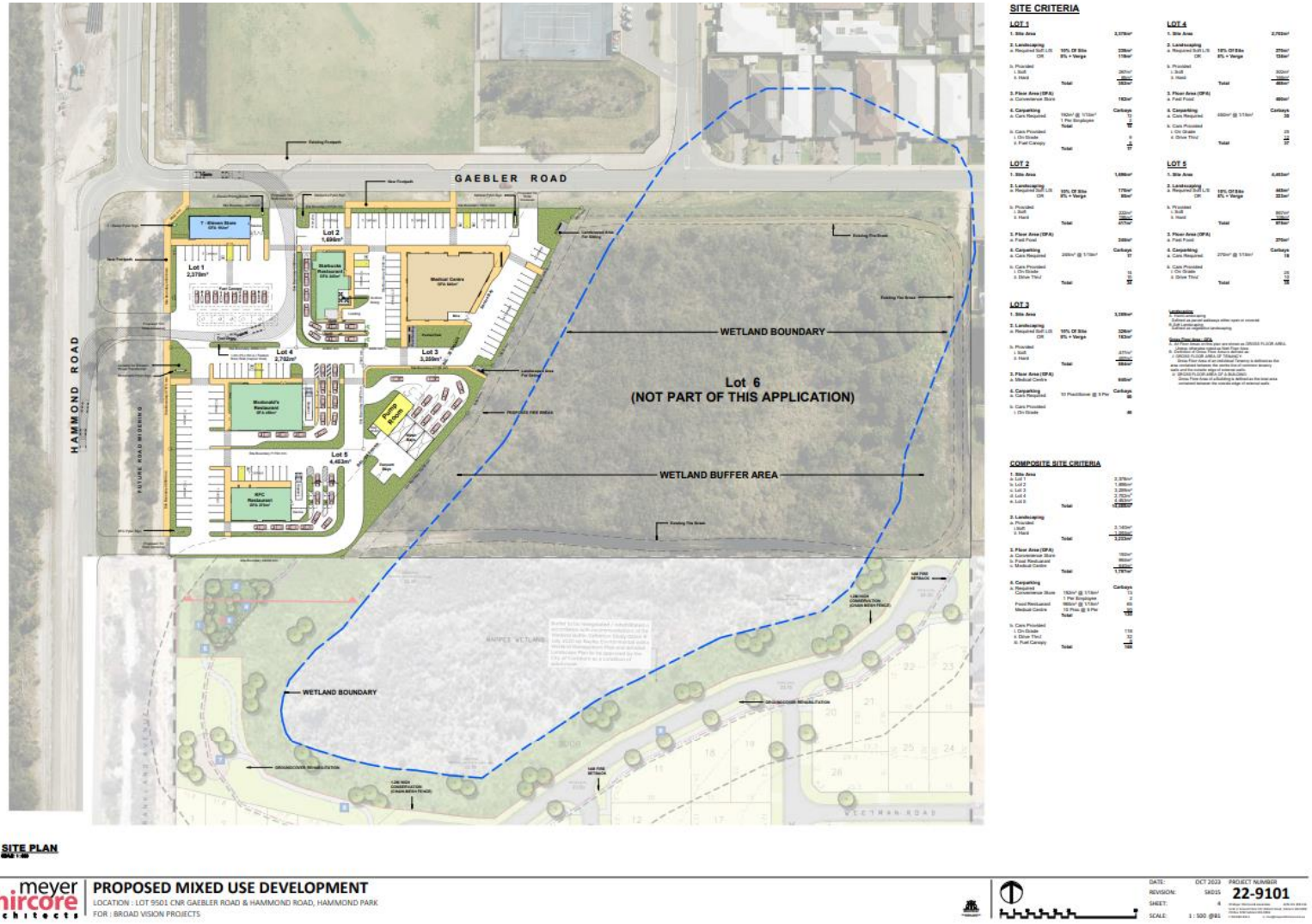
Figure 3. Proposed Development Uses

Proposed Use	Gross Floor Area (m^2)	Net Lettable Area (m^2)	Relevant PLUC
Lot 1 – Service Station / Convenience Store	192	2,400	Shop/Retail
Lot 2 – Fast Food	245	200	Shop/Retail
Lot 3 – Medical Centre	640	145	Office/Business
Lot 4 – Fast Food	450	455	Shop/Retail
Lot 5 – Fast Food	270	250	Shop/Retail
Car wash	Not Available		Service Industry
Total Floorspace (m^2)	1797	1617	
Total Retail Floorspace (m^2)	1157	1041	

Source: Build Plus Group, DPLH 2017

Build Plus Group have provided a detailed site plan for the proposed uses (Figure 4).

Figure 4. Proposed Site Plan



Source: Build Plus Group

2.4 Local Planning Scheme No: 3

This analysis uses Department of Planning, Lands and Heritage Planning (DPLH) Land Use Categories (PLUCs) to model Shop/Retail floorspace in alignment with SPP4.2 NB Test requirements. The categorisation of service station and fast food uses as Shop/Retail however is not in alignment with the City of Cockburn Local Planning Scheme No.3 (LPS 3). LPS 3 defines these uses with more detailed categories; Service Station and Fast Food are identified as Transport and Entertainment uses respectively. These uses better reflect the intention of the proposed development and demonstrate that they are less likely to impact the Shop/Retail network. This being said, they have been included to provide a conservatively high retail impact to inform the NB Test.

2.5 Strategic Alignment

The proposed development at Lot 9501 Gaebler Road, Hammond Park aligns with relevant strategic planning documents. These documents include:

- DPLH South Metropolitan Peel Sub-Regional Planning Framework 2017
- DPLH State Planning Policy 4.2 – Activity Centres 2023

South Metropolitan Peel Sub-Regional Planning Framework 2017 (the framework) reflects the goals of State Planning Strategy 2050 and Directions 2031 and Beyond by establishing an integrated planning framework for land use and infrastructure to facilitate future growth on a sub-region level. The framework utilises employment self-sufficiency (ESS) as a measure of local economic performance. ESS represents the degree to which an area can employ its population. The framework aims to increase ESS by:

- Delivering jobs within the sub-region that match the sub-region labour force and demographic profile
- Focusing on sub-regional employment opportunities in industries such as manufacturing, construction, retail, healthcare and social assistance
- Protecting employment-generating land from the encroachment of competing and incompatible land uses
- Supporting district, neighbourhood and local centres that provide local employment opportunities

For the south-western corridor, the framework sets a target of 83% ESS by 2050 from 65% in 2011.

SPP4.2 aims to ensure that planning, development and decision making adequately consider the distribution, function, broad land use, access and urban form considerations for activity centres. The strategic document provides policy outcomes for commercial land uses which include:

- Sufficient land use mix, ensuring employment opportunities
- Cohesiveness and functionality, providing for the needs of the community
- Efficient and equitable access to goods and services

The proposed development at Lot 9501 Gaebler Road, Hammond Park aligns with the South Sub-Regional Planning Framework ESS targets and SPP4.2 policy outcomes by providing local employment opportunities

in the listed industries. The subject site's proposed service station, fast food and medical centre uses are generally considered population-driven industries that attract local workers. The proposed medical centre and retail uses will support approximately 65 Full Time Equivalent (FTE) jobs, directly contributing to growth in ESS. The development fills a spatial and land use market gap thereby increasing the efficient and equitable access to goods and services.

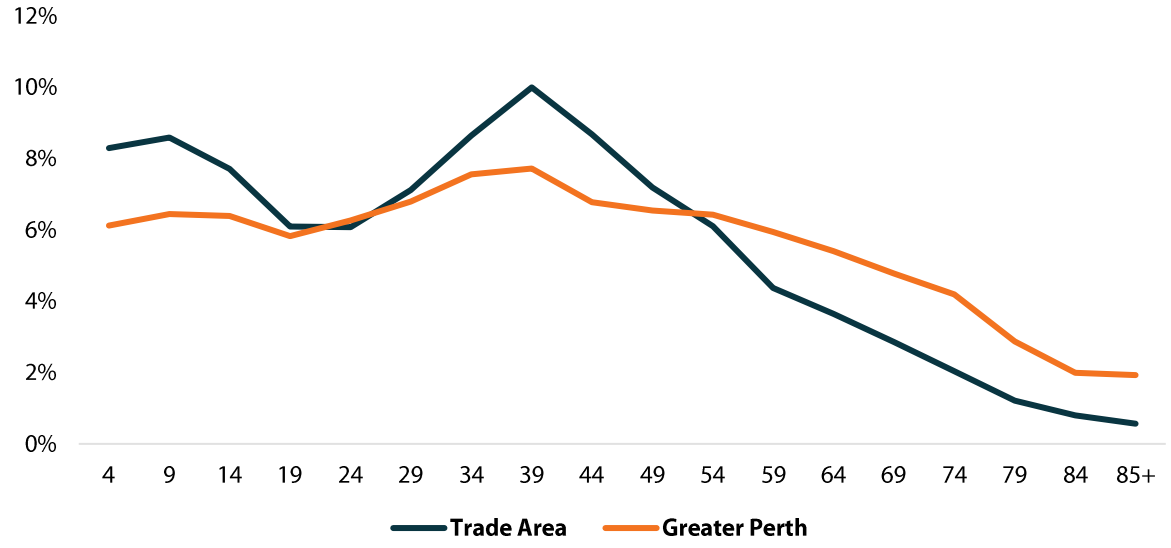
3 RETAIL DEMAND

Understanding local demographics and expected market growth is vital for assessing the need for retail floorspace in the estimated trade area. This section provides an overview of demographics, current and future dwellings and the expenditure profile of the trade area.

3.1 Age Profile

The trade area exhibits a younger and family-oriented age profile to the Greater Perth benchmark (Figure 5), with a slightly lower proportion of people aged 20- to 24-year-olds (6.0% versus 6.3%) and a higher proportion of both 0- to 4-year-olds (8% versus 6%) and 35- to 39-year-olds (10% versus 8%) than in Greater Perth. This reflects that the trade area is comprised of a higher concentration of working-age adults with young children than the Greater Perth average. This may indicate increased expenditure on childcare and certain convenience retail goods and services.

Figure 5. Trade Area Demographic Profile



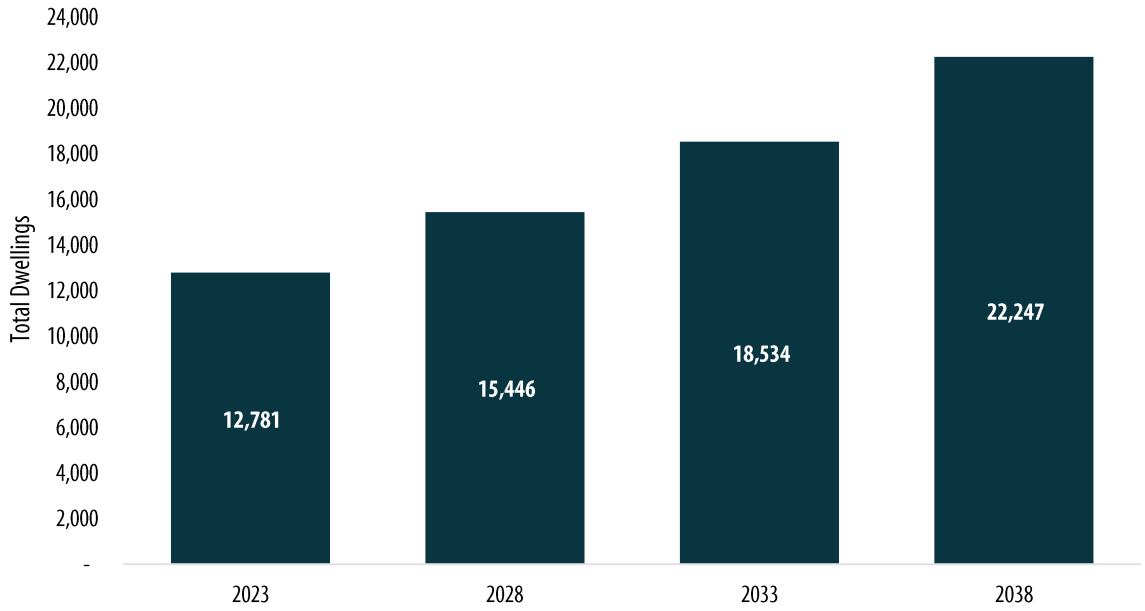
Source: ABS 2021, Pracsys 2023

3.2 Trade Area Households

The approximate trade area of the proposed development is estimated to contain 12,781 dwellings in 2023 (Figure 6).[4] Based on dwelling growth forecasts, the number of dwellings in the trade area is expected to increase to 18,534 by 2033, reflecting a forecast increase in dwellings of 45 per cent. By 2038, the number of dwellings in the trade area is projected to reach 22,247, reflecting a 74 per cent increase from the current level.

[4] The ABS Census 2021 dwelling count by SA1 areas augmented by WA Tomorrow population projections (median band).

Figure 6. Trade Area Dwelling Growth Forecast

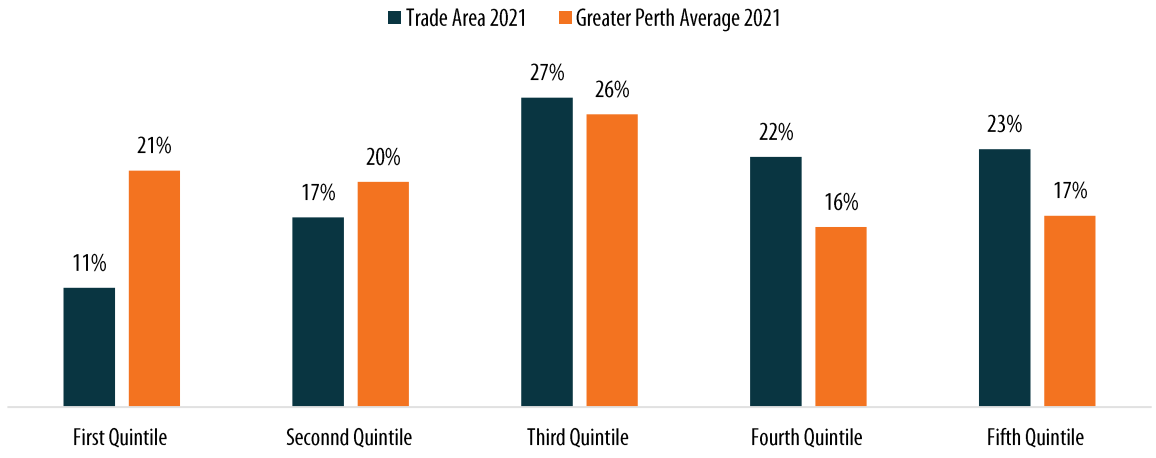


Source: ABS 2021, DPLH WA Tomorrow 2018, Pracsys 2023

3.3 Trade Area Household Income

Trade area household income levels contribute directly to the success of retail developments, as the level and composition 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 comparison retail items. 2021 ABS Census data has been used to assess the distribution of household income within the trade area in Figure 7.

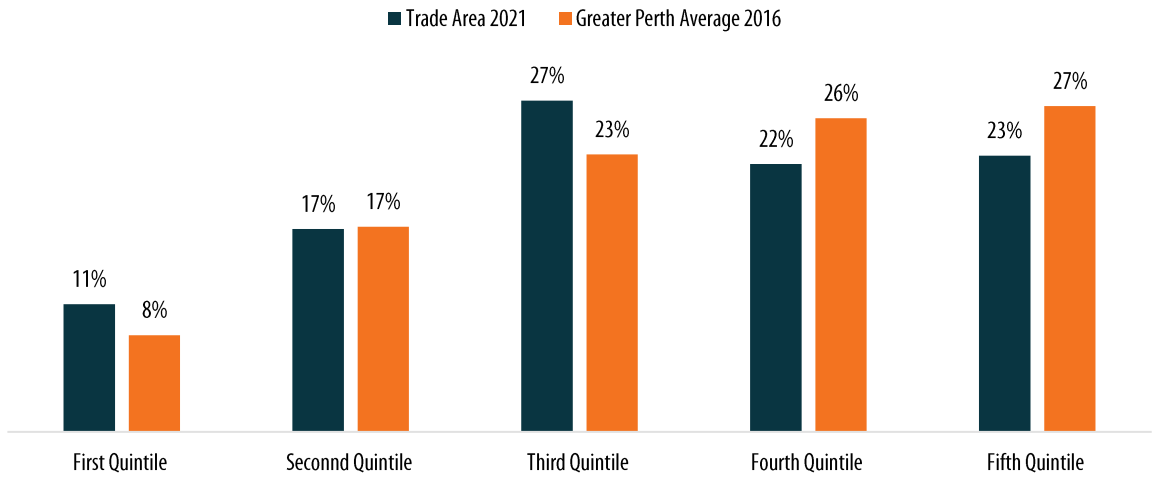
Figure 7. Trade Area 2021 and Greater Perth 2021 Population Weekly Income Profile



Source: ABS HHES Survey 2017/2018, Pracsys 2023

Incomes in the trade area have a lower representation than the Greater Perth benchmark across the first and second quintiles, with a higher proportion of households in the third quintile (27% versus 26%), fourth quintile (22% versus 16%), and fifth quintile (23% versus 17%). This is likely reflective of the high economic resilience of households in the trade area against the negative impacts of COVID-19, which has likely contributed to significant variation in the composition of household income in Greater Perth as of the 2021 Census. 2016 ABS census data for Greater Perth has been compared with 2021 trade area data for a more accurate comparison without the effect of COVID-19 (Figure 8).

Figure 8. Trade Area 2021 and Greater 2016 Population Weekly Income Profile



Source: ABS HHES Survey 2017/2018, Pracsys 2023

Incomes in the trade area are higher than Greater Perth benchmark in the first quintile (11% versus 8%) and the third quintile (27% and 23%) with a lower proportion of households in the fourth and fifth quintiles. This accurately reflects the demographic analysis, as the trade area has a higher proportion of residents between the 25-29 and 35-39 age brackets who have likely not yet reached their earning potential. However, the relatively higher proportion of household incomes in the third quintile likely indicates a strong level of discretionary spending within the catchment, which will stimulate greater goods and services provision.

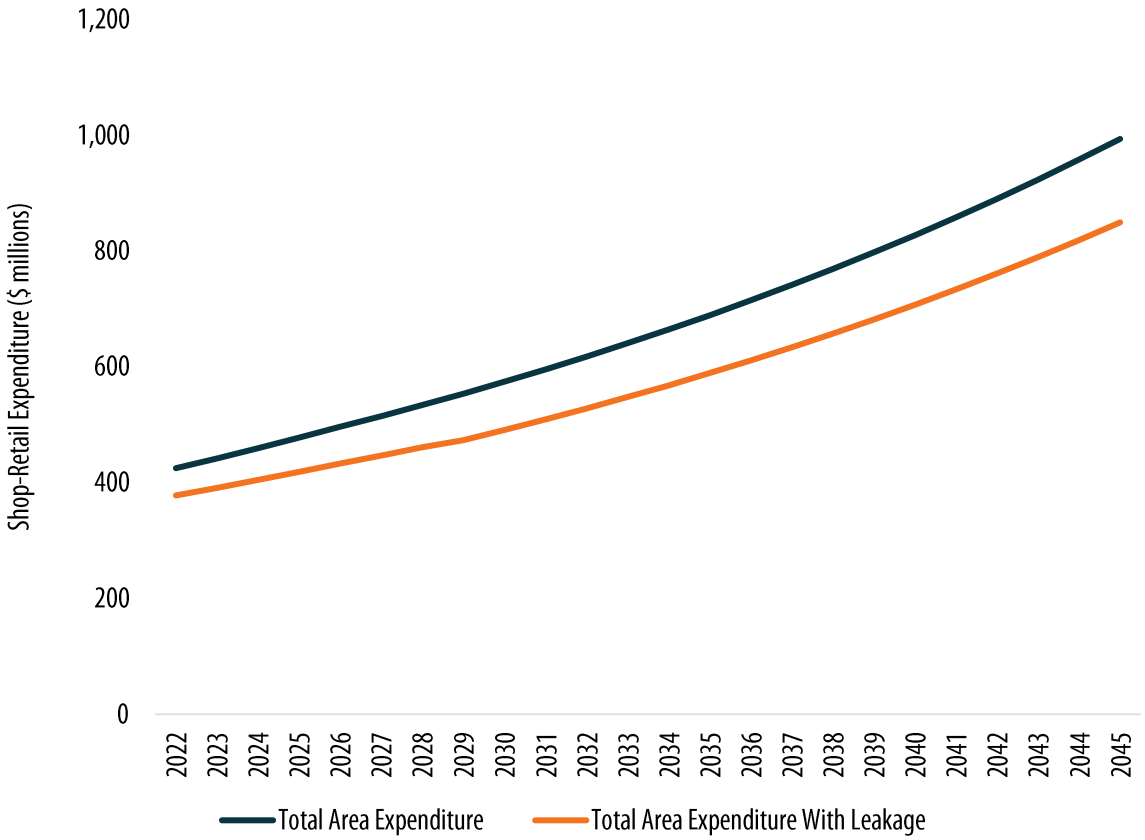
3.4 Estimated Retail Expenditure

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 the 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 $441 million in 2023 to $640 million in 2033, reflecting growth of 35 per cent (Figure 9).

By 2038, shop-retail expenditure in the trade area is predicted to reach $768 million – an increase of 74 per cent from current levels. This large increase in catchment expenditure reflects the significant expansion in residential dwellings expected to occur within the trade area over the next 10 – 15 years. 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 9. Catchment Area Shop/Retail Expenditure Pool, 2022 to 2045



Source: ABS Census 2021, ABS HHES Survey 2017/2018, Pracsys 2023

4 RETAIL SUPPLY

4.1 Current Supply

This section provides an overview of the competitive environment facing the proposed development at Gaebler Road, Hammond Park. Being a local centre, the proposed centre is likely to compete principally with those centres in proximity.

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

- The Department of Planning Land Use Survey (2016)
- Property Council Shopping Centre Directory (2021)
- Secondary Research (various structure plans, property manager websites etc.)

A total of ten current and future developments containing Shop/Retail floorspace within five kilometres of the proposed development were included in the analysis to ensure a comprehensive assessment of current competing retail supply. A selection of centres within the supply network are illustrated in Figure 10. The trade area includes a wide range of retail offerings, from the Cockburn Gateway Secondary Centre to various neighbourhood and local-level centres such as Harvest Lakes and the Park Hive. Most centres within the 5km trade area are neighbourhood and local centres that provide for daily and weekly household shopping needs.

Figure 10. Trade Area Retail Supply Network



Source: DPLH Land Use and Employment Survey 2017/18

The total current Shop/Retail offering within the 5km trade area and surrounds has been estimated at 61,149m^2 (Figure 11).

Figure 11. Trade Area Shop-Retail Floorspace Supply

Centre	Shop-Retail Floorspace (m²)
On the Map	
Stargate	1,443
Cockburn Gateway	51,322
Harvest Lakes	4,500
The Park Hive	2,913
Aubin Grove	850
Wandi LC	121
Total Floorspace	**61,149**

Source: DPLH Land Use and Employment Survey 2017/18

4.2 Expansions and Planned Developments

A desktop analysis and review of planning documentation within the City of Cockburn and City of Kwinana local government areas was undertaken to identify any planned future Shop-Retail floorspace developments within the trade area and surrounds. This review in conjunction with planned developments identified six future retail developments or expansions in the region (Figure 12). These expansions have been used to consider the long-term ability of the catchment to support the proposed centre size.

Figure 12. Trade Area Shop-Retail Floorspace Expansions and Developments

Centre	Previous NLA (m²)	Expanded NLA (m²)	Additional NLA (m²)	Year of Expansion
Wandi DC	0	6,000	6,000	2026
Wandi LC	121	1,500	1,379	2026
Hammond Road	0	8,100	8,100	2026
Mandogalup	0	1,500	1,500	1,000 (2026) 1,500 (2031)
Hammond Park	0	6,670	6,670	5,485 (2026) 6,670 (2031)
Cockburn Gateway	51,322	90,000	38,668	72,300 (2026) 90,000 (2036)

Source: City of Kwinana 2022, Pracsys 2023

5 NEEDS ASSESSMENT AND NET BENEFIT TEST

This section identifies the potential supportable retail floorspace at the proposed site and estimates the potential impact of the proposed development on the surrounding activity centre hierarchy.

5.1 Gravity Modelling

The RNA and NB Test uses gravity modelling to estimate the quantity of Shop/Retail floorspace supportable at the project site.

Gravity model estimates of centre turnover were calibrated against known or modelled turnover data where possible. As Cockburn Gateway is the only significant centre located in the trade area, its published turnover data was included in the calibration of the model (Figure 13). Where centres were near the border or outside of the trade area, the approximate proportion of their expenditure expected to be derived from the trade area was used to adjust their turnover.

Figure 13. Centres with Available Turnover Data or Published Productivity Estimates

Centre	Turnover ($)	% from Catchment
Cockburn Gateway[5]	431,790,000	40%

Source: Cockburn Gateway 2019

Where published data was not available, a scan for outliers (centres where the gravity model may have distributed too much or too little expenditure) was undertaken. Turnover productivity levels were applied in these cases based on benchmarked productivity averages.

5.2 Supportable Turnover

The trade area appears to be experiencing a relatively high level of leakage outside of the region. The gravity model was used to compare expected turnover at identified centres with modelled expenditure in the catchment in 2023. Expected turnover is based on activity centre size, approximate mix of uses, viable floorspace productivity ($/m^2) and proportion of turnover drawn from catchment.[6] It is estimated that there is up to approximately $102 million in leakage (27% of total expenditure) from the catchment due to the current supply of retail being less than required to meet local demand. The test was undertaken again in 2026 with new and expanded centres; leakage is reduced to approximately $33 million (8% of total expenditure). The results indicate there is need for additional retail in the catchment (Figure 14).

[5] Cockburn Gateway Shopping Centre 2019, 'Asset Profile Flyer' Available from: https://specialtymallleasing.com.au/ctrpdf/30/PCG316_Asset_Profile_Flyer-SML_COCKBURN.pdf

[6] Viable floorspace productivity is provided in Figure 15

Figure 14. Target Productivity and Total Productivity

Estimated Target Productivity ($/m²)	Total Expenditure ($/m²)	Leakage 2023 ($/m²)	Leakage 2026 ($/m²)
$393,714,590	$427,211,885	$102,625,773	$33,497,295

Source: Pracsys 2023

The viability of Shop/Retail floorspace at the site was tested by assessing whether the turnover achieved at the proposed 1,041m² of Shop/Retail floorspace was sufficient for the centre to be viable over the next 15 years (Figure 15). The expected floorspace productivity in five-year increments was then compared to benchmark floorspace productivity levels for convenience and dining out uses (Figure 16). The proposed site was assumed to become active in 2026.

Figure 15. Proposed Centre Retail Floorspace Productivity ($/m²)

Floorspace m²	2026	2031	2036	2041
1,041	$9,843	$11,216	$12,760	$15,330

Source: Pracsys 2023

Figure 16. Retail Benchmark Productivity

Retail Category	Productivity ($/m²)
Take Home Food	$12,599
Take Home Liquor	$11,339
Dine Out Food	**$8,189**
Convenience Retail	**$8,819**
Clothing/Footwear	$6,300

Source: Colliers 2017, Escalated to 2023 dollars

Note: relevant categories are highlighted in grey

The analysis includes all future centres in 2026, with expansions where relevant in future years. The expected floorspace productivity of the Lot 9501 Gaebler Road Hammond Park site is $9,843m² in 2026; this is well above the viable floorspace productivity level for the relevant uses which is between $8,189m² and $8,819m². The demand for retail floorspace is expected to increase significantly over time and the proposed uses will be viable at the site.

5.3 Impact Test

Turnover impact represents the reduction in a centre's turnover resulting from new shop-retail floorspace in the catchment. Two scenarios are modelled, one with the proposed development and one without. The two levels of turnover across relevant centres are then compared to estimate the impact the proposed development is expected to have.

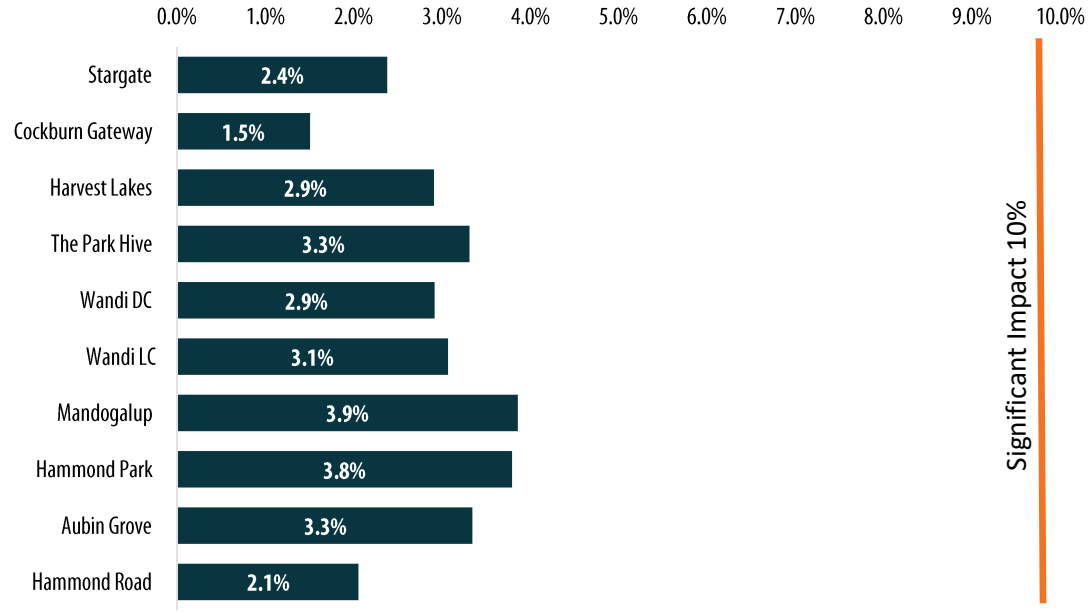
Impact Assessment Steps[7]

- Define the first year of the proposed development operation (2026)
- Model shop-retail turnover for all centres, including expansions and new centres, in 2026 without the proposed development
- Include proposed development shop-retail floorspace in model
- Model shop-retail turnover for all centres including proposed development in 2026
- Calculate the change in shop-retail turnover for all centres in 2026 due to the inclusion of the proposed development in the model
- Estimate % change in shop-retail turnover for each centre and compare to SPP4.2 Implementation Guidelines impact levels

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 sustainability of a centre is typically considered significantly impacted when its turnover is reduced by more than 10%.[8] Figure 17 displays the results of the turnover impact test for the proposed development at the Gaebler Road, Hammond Park site using a gravity model approach. The results reveal the difference in retail turnover owing to the development of the subject site.

Figure 17. Centres – Turnover Impact 2026



Source: Pracsys 2023

All initial impacts are less than 5% and are considered insignificant impacts according to SPP4.2 Implementation Guidelines. Small retail centres in close proximity to the proposed development site such as

[7] For more details on Gravity Modelling specifically, please see Appendix 1: Gravity Modelling Methodology
[8] As defined by the SPP4.2 Implementation Guidelines

Hammond Park, Mandogalup, Aubin Grove, and The Park Hive are expected to be affected the most, experiencing impacts between 3.4% and 4%. Larger centres located further from the subject site such as Cockburn Gateway are impacted to a minimal extent at 1.6% (this is the impact measured against the 40% of turnover attributable to the catchment population, the impact for the centre's total turnover is much smaller). These impacts are likely to be offset by forecasted population growth in the trade area (Figure 18).

Figure 18. Turnover Impact Change to 2036

Centres	2026	2031	2036
Stargate	-2%	12%	19%
Cockburn Gateway	-2%	14%	35%
Harvest Lakes	-3%	11%	20%
The Park Hive	-3%	10%	20%
Wandi DC	-3%	6%	16%
Wandi LC	-3%	6%	17%
Mandogalup	-4%	37%	44%
Hammond Park	-4%	24%	33%
Aubin Grove	-3%	9%	19%
Hammond Road	-2%	13%	20%

Source: Pracsys 2023

All centres have sustainable floorspace productivity levels after the development takes place, increasing significantly with population growth. As such, the proposed development will not affect the viability of nearby centres or the sustainability of the centre hierarchy.

6 IMPACT ON COMMUNITY

6.1 Economic Benefits

The development at Lot 9501 Gaebler Road, Hammond Park will provide ongoing quantitative benefits through employment, output, and distance travelled.

Construction Employment and Output

Input-output modelling has been used to estimate the construction impact of the proposed development. With an estimated construction cost of $12m the development is expected to have a net output of $38m on the surrounding economy. It is estimated the development will support 21 FTE direct jobs and 61 FTE indirect jobs. The employment opportunities offered will largely support young working-age adults, a missing demographic group in the trade area. Some of this employment will be a transfer from within the trade area while some will reflect new employment opportunities for locals, contributing to sub-regional planning framework objectives such as improved employment self-sufficiency.

Operational Employment and Output

In the operation phase, the development will support a mix of health and retail jobs. The proposed medical centre will support approximately 15 FTE jobs in a knowledge intensive sector with higher wages. The retail component will support approximately 50 FTE lower skilled jobs suited to younger adults. Total output from all uses is estimated to be in the order of $11.4 million annually. These 65 employment opportunities will contribute to improving the ESS of the region as the land had not previously been identified for employment uses; this means that the jobs are additional to planned employment capacity.

Vehicle trips

The gravity model considers distance and size of centre to estimate the probability that a household accesses a centre. This has been used to test the total distance travelled in the trade area between dwellings and activity centres and measure the change achieved by including the proposed development. It is estimated that the proposed development will generate a 1% reduction in total distance travelled to access shop/retail uses for the catchment area.

Economic leakage

The current provision of floorspace within the defined 5km catchment appears to be lower than the level of demand from residents in the catchment. This is evidenced by a quantified leakage rate of up to 27%. While some of this leakage is likely captured by local centres, much would ultimately be lost to centres outside the catchment. The proposed development will likely draw much of its turnover from reduction of leakage from the catchment, this means that the jobs provided by the development are more likely to be additional and not a transfer of economic activity from a neighbouring centre.

Where local centres are supporting higher levels of shopping activity than they normally would there would be financial gains for the specific centre; however, consumers may experience greater wait times, high levels of congestion in and around centres and overcrowding. The proposed development along with other proposed expansions by 2026 will help reduce the leakage of expenditure from the local economy and contribute to an improved balance in the activity centre hierarchy.

Strategic Location

The proposed uses are located at the intersection of Hammond Rd and Gaebler Rd. Hammond Rd is a District Distributor B road that plays an important role in providing access to Hammond Park and neighbouring areas. It is planned to be extended through to Rowley Rd and into the Mandogalup IP47 area and is likely to see an increase in traffic as new residential developments occur. Corner locations provide high levels of exposure for businesses and improved access for consumers. The proposed development is likely a more appropriate use for the intersection as it will benefit from the high levels of traffic and access without being impacted by potential increases in noise.

6.2 Community Benefits

The Lot 9501 Gaebler Road development is expected to deliver positive benefits to the surrounding community. The proposed development will support walkable access to Shop/Retail uses for the surrounding population and residents of neighbouring residential developments. The proposed development will benefit the surrounding neighbourhoods such as Aubin Grove, Wandi, and Wattleup, by increasing access to retail goods and reducing the travel time to access these goods. This creates balance and equity of access as larger numbers of people are able to access the goods and services they desire in a timelier fashion. The proposed development will also encourage healthy competition in the area, benefitting the consumer regarding the price and quality of goods. The development will support the future southern extension of Hammond Road to Wattleup Road, reducing the need for local residents to access Kwinana Fwy for shopping trips; this aligns with State planning objectives to reduce strain on the States road network. Similarly, public transport which connects Hammond Park, Wattleup, and Aubin Grove will receive additional utilisation.

Some specific benefit considerations include:

Equity and social inclusion

The proposed uses will support greater levels of liveability for persons in the surrounding area. The location of the uses along Hammond Road aligns with its role as an important north – south connector and are appropriate uses for a location with high levels of passing traffic. The proposed uses are approximately halfway (1km from each) between the future Hammond Park centre and the Park Hive along Russel Road (2.1 km according to Google Maps). SPP4.2 (2023) identifies walkable catchments for neighbourhood centres as being 400m and for local centres as being 200m. The proposed uses will provide walkable access to retail and medical uses in an appropriate location to address a gap.

Infrastructure and Services

Having a mix of retail and medical uses at the site will support multi-purpose trips, which is an objective of SPP4.2 (2023). The site is also adjacent to a primary school and less than 200m from a bus stop, providing convenient access to a wide range of potential users. It is estimated that the proposed location (not accounting for public transport access and walking access) will reduce the total level of motor vehicle use for consumers by approximately 1% in the catchment area. This reflects the suitability of the location for the proposed uses.

Benefit Summary

The identified benefits indicate that the proposed development at Lot 9501 Gaebler Road, Hammond Park is likely to be a welcome addition from both an economic and community benefit perspective by providing employment, reducing travel time, encouraging healthy competition and supporting equitable access.

7 CONCLUSION

This report assesses the proposed development at Lot 9501 Gaebler Road Hammond Park, its trade area and competition to estimate the potential impacts on the retail network and consider whether there is sufficient demand for a Shop/Retail development at the subject site.

There is a clear need for retail uses in the catchment with an apparent undersupply of retail uses. Over the next 15 years, the trade area population is expected to grow significantly through new residential developments around the proposed site. Furthermore, the income distribution of the catchment population is likely to support increased disposable expenditure for retail items.

Expenditure leakage from the area is estimated to be as high as 27%. There are a number of proposed expansions and developments to be completed in the trade area along with the development at Lot 9501 Gaebler Road. This retail floorspace supply expansion will occur alongside an increase in demand for retail floorspace from population growth, allowing for current centres to maintain their viability and expenditure leakage out of the catchment area to be reduced. The Gaebler Road development is predicted to be viable in 2026 (the year of opening) at approximately 1,000m^2 Shop/Retail floorspace, further demonstrating the need for retail uses.

This report also provides a Net Benefit Test to assess the sustainability of the retail hierarchy with the introduction of the Gaebler Road development in accordance with SPP4.2. The results have shown that the estimated impacts are insignificant and well below the 10% significant impact threshold; the sustainability of the centre hierarchy will be preserved. A number of factors contribute to this finding, including:

- The development is in an established area with forecasted population growth
- A profitable competitive environment
- The proposed development is in close proximity to under-provisioned areas

The proposed development is likely to bring both economic and community benefits by providing employment, reducing travel time, encouraging healthy competition and creating equitable access. The location at the intersection of Hammond and Gaebler Rd is highly suited to commercial uses and likely a more appropriate use for the site than residential development. It is estimated that the development will reduce distance travelled to reach activity centres by approximately 1%.

The retail and medical component of the Lot 9501 Gaebler Road, Hammond Park development align with SPP4.2 Implementation Guidelines objectives.

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 19.

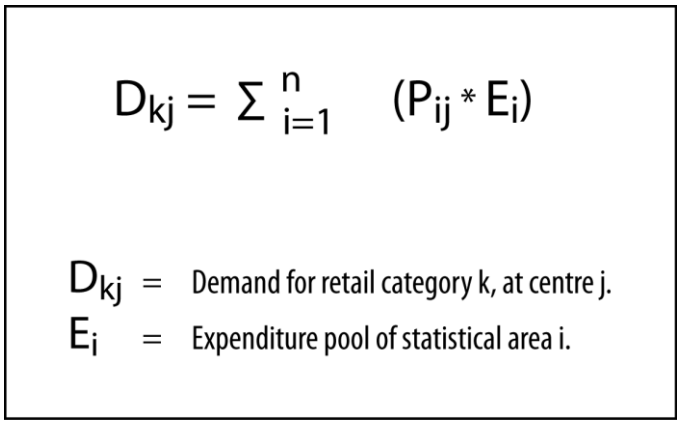
Figure 19. Gravity Model Probability Formula

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

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
ß	=	Distance exponent
k	=	Type of supply or expenditure, either Convenience or Comparison
i	=	Statistical area (i=1,...,n)
j	=	Complexes (j=1,...,m)

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

Figure 20. Gravity Model Demand Formula



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

Figure 20 shows that the demand for retail category k[9], 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 is 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).

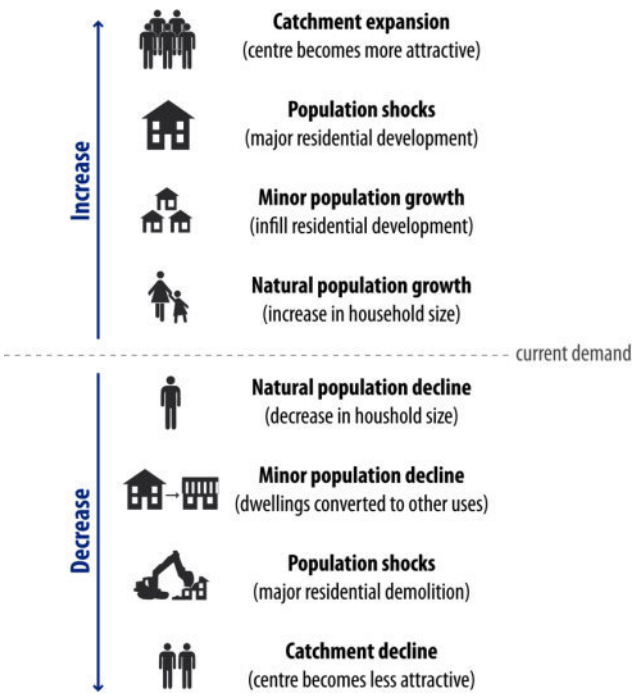
7.1 Drivers of Retail Floorspace Supply and Demand

Demand changes can result in increased or decreased expenditure. The potential causes of demand changes are shown in Figure 21. 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.

[9] 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.

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.

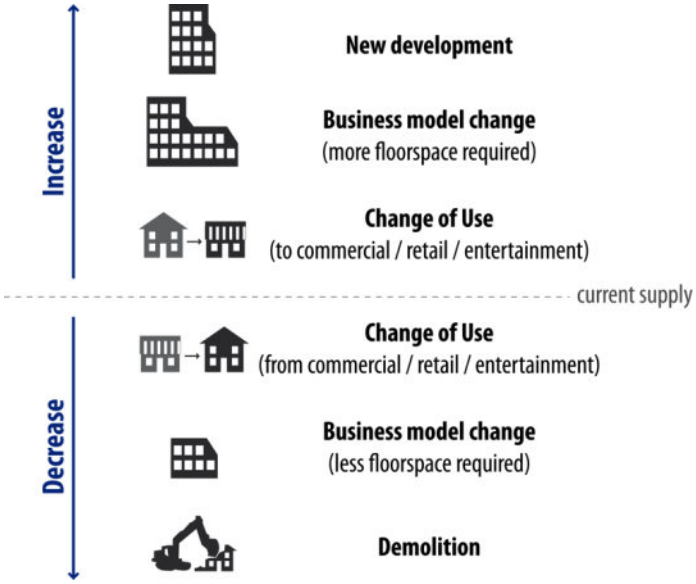
Figure 21. Drivers of Retail Floorspace Demand



Source: Pracsys 2020

Supply changes can result in increased or decreased retail floorspace. The potential causes of supply changes are shown in Figure 22.

Figure 22. Drivers of Retail Floorspace Supply



Source: Pracsys 2020