PROPERTY ECONOMICS

RIVERHEAD LANDOWNER GROUP LOCAL CENTRE RETAIL ASSESSMENT

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Client: Riverhead Landowner Group

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SCHEDULE

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1. INTRODUCTION

Property Economics has been engaged by Riverhead Landowner Group (RLG[1]) to estimate the land requirement for the development of a new commercial centre to service the future community of Riverhead, based on the latest projections for the market growth of the proposed centre. This proposed centre development is part of a wider body of Structure Plan work for a large residential development on the fringe of Riverhead in the Future Urban Zone (FUZ) area.

This report provides a high-level economic assessment of the surrounding commercial network, appropriate size, scope and store types of the subject centre. The research output of this report will provide a sound basis to assist RLGs' planning for a localised retail provision in an efficient manner.

1.1. OBJECTIVES

- Identify and geospatially map the locations of the existing commercial centres in the wider Riverhead market.
- Outline the broad role and function in the community of each identified centre.
- Delineate and map the geospatial extent of Riverhead core commercial catchment and the site's location within the surrounding competitor network.
- Quantify the retail demand for convenience and supermarket retail activity on an annualised basis for the identified retail market.
- Break down retail demand by activity / store types and highlight the types of retail and service store types appropriate for a commercial centre in Riverhead.

[1] *The Riverhead Landowner Group includes Fletcher Residential Ltd, Matvin Group and The Neil Group*

- Determine the amount of land sustainable for a commercial centre in Riverhead based on generated demand.
- Determine the appropriate scale, composition, and activity types suitable for a commercial centre provision within the commercial area.

1.2. INFORMATION & DATA SOURCES

Information has been obtained from a variety of what Property Economics consider to be reputable and reliable data sources and publications, including.

- Catchment Map – Google Maps, LINZ, Statistics NZ
- Census of Population and Dwellings 2006, 2013 & 2018 - Statistics NZ
- Household Economic Survey - Statistics NZ
- Population and Household Projections – Statistics NZ
- Retail Growth Model – Property Economics
- Retail Trade Survey - Statistics NZ
- Site and Catchment Visit – Property Economics
- Structure Plan – Riverhead Landowner Group

1.3. THE PROPOSED DEVELOPMENT

RLG has created a Structure Plan for the development of a 72ha block of Future Urban Zone land in Riverhead.

As part of developing the Structure Plan for the subject sites, RLG want to assess the market potential for a supermarket-based centre within a proposed Local Centre Zone and a Neighbourhood Centre to service the anticipated growth in retail demand of the future Riverhead community.

Appendix 1 shows the proposed Structure Plan for the development within the subject land.

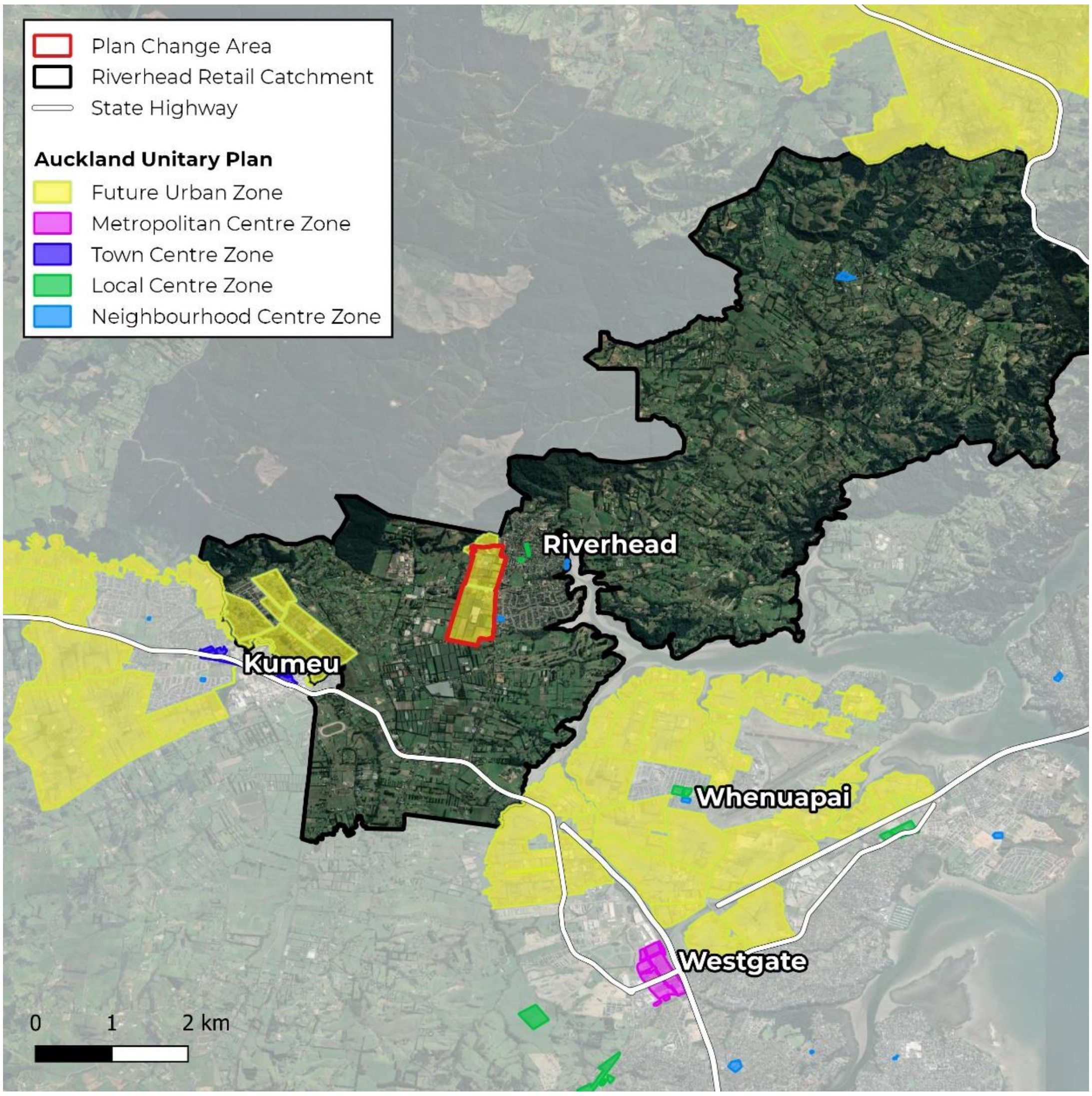
2. RIVERHEAD RETAIL CATCHMENT

In order to estimate the retail development potential (or opportunity available) for a proposed Riverhead Commercial Centre, it is necessary to first identify its core economic market.

The core economic market or retail catchment is essentially the geographic area from which the proposed centre is likely to derive the majority of its sales or the area the stores are designed to primarily service, and where the centre is considered to have a strategic locational advantage in terms of proximity over other centres.

Figure 1 illustrates the geospatial extent of the proposed Riverhead retail market. It also shows the location of the Future Urban Zone, Development Site, road network, and the zoning of the nearby commercial centres. It is these factors as well as the natural and physical geographical barriers and known spending patterns of other similar centre types that assist defining the extent of Riverhead's core economic market.

FIGURE 1: RIVERHEAD CORE RETAIL CATCHMENT



Source: Property Economics

Auckland's North-West is a significant growth node with over 2,000ha of Future Urban Zone land between Kumeu, Riverhead and Whenuapai. The 72ha development site located on the western edge of Riverhead represents a comparatively small proportion of this overall Future Urban land supply. Nevertheless, the proposal represents significant growth in the context of the Riverhead market and would generate a significant increase in local demand for retail and commercial services.

2.1. LOCAL COMMERCIAL ENVIRONMENT

This section provides the relevant background context for the assessment of a potential commercial centre. It provides a detailed overview of the current centre network and the implications on the appropriate scale of a commercial centre within the proposed development.

There are four different levels of business zoning in the Auckland Unitary Plan that forms a distinct commercial centre hierarchy with a clear role and function for each of the centres. The Business Zone types are as follows:

- **Neighbourhood Centre Zone** – Single corner stores or small shopping strips located in residential neighbourhoods. This commonly includes your local takeaway shop, dairy and convenience services like hairdressers. These centres provide frequent retail and commercial service needs to local community and passers-by and as such are scattered through the residential areas.

  There are three Neighbourhood Centre Zones within the identified catchment. The two existing centres in Riverhead each contains a single tenancy. The first of these is the Riverhead restaurant / event venue and the other is the Hallertau Brewery which also contains a restaurant. Although not centres in and of themselves, they do contribute to the retail offer in Riverhead. In addition, there is an existing centre in Coatesville and currently occupied a strip of stores including three cafes and one motor store.

- **Local Centre Zone** – The Local Centre Zone provides for a larger retail centre that while often containing predominately convenience retail and services, are permitted to include a range of retail, office, and commercial service activities. Specifically, the Unitary Plan permits retail up to 450sqm, Offices up to 500sqm and Supermarkets up to 2,000sqm. Activities that exceed these requirements are classified as Restricted Discretionary.

  The Local Centre in Riverhead located on the Coatesville Riverhead Highway includes some recently built / renovated stores. Although the total zone covers 0.91ha of land, less than a third is devoted to retail centre uses which totals around 1,070sqm in floorspace. The rest of the zone is used by an Education Centre, Kindergarten and a Studio Black bespoke design service. These activities cover an additional 850sqm of floorspace.

- **Town Centre Zone** – This zone is applied to suburban centres throughout Auckland and satellite townships such as Kumeu and Pukekohe. The provisions in this zone allow for a wider range of activities including commercial, leisure, residential, tourist, cultural, community and civic services.

  A Town Centre is designed to service a broader catchment and permits large format retailing, a cinema complex and other entertainment facilities. In essence, it is a more fulsome range of commercial activities enabled to satisfy the surrounding suburbs, but not of a scale that would attract material custom from other areas of the city.

  Kumeu is located only 5km away from Riverhead and represents the closest Town Centre to the subject plan change area.

- **Metropolitan Centre Zone** – Metropolitan Centres are the largest centres outside of Auckland's CBD in both overall scale and intensity. Metropolitan Centres generally contain large malls such as Sylvia Park, Westfield Manukau and Albany.

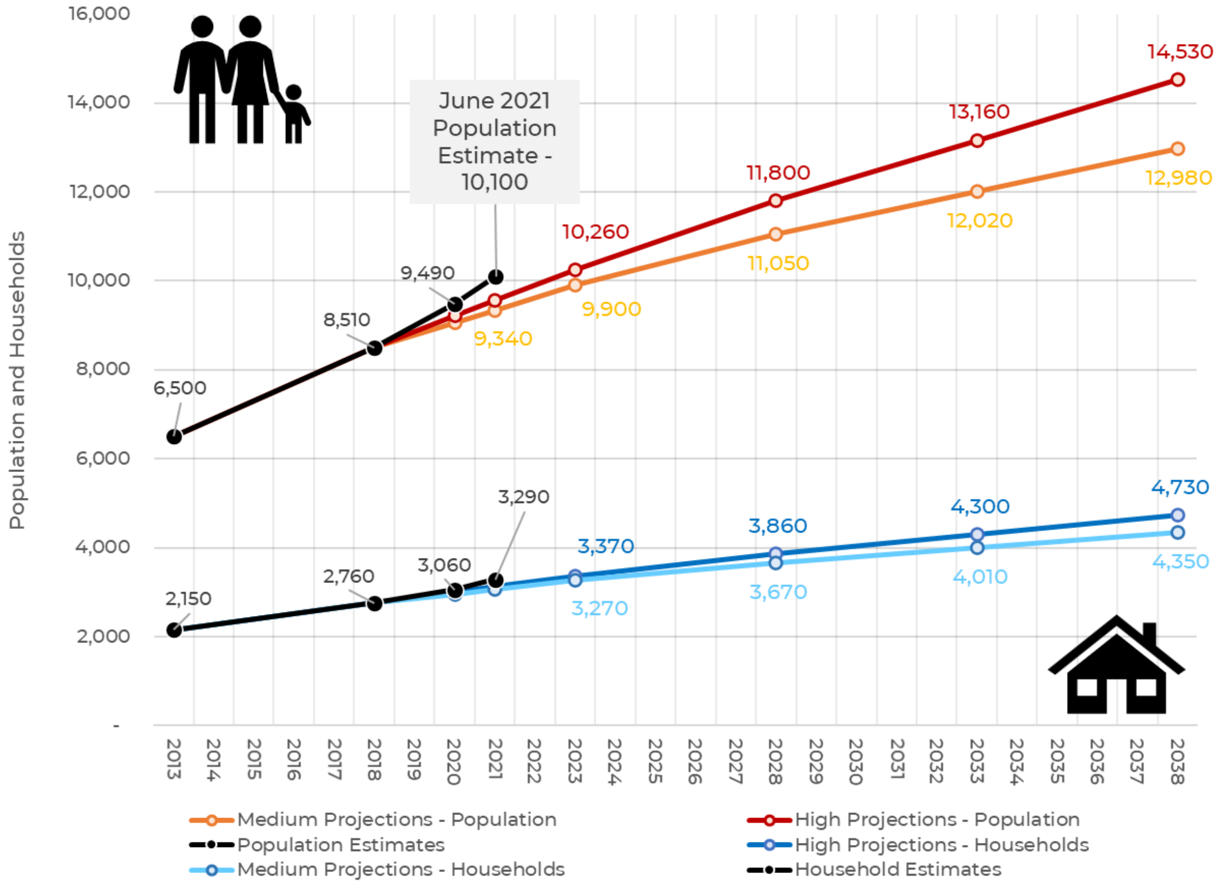
  The Unitary Plan states, Metropolitan Centres are designed to act as "*focal points for community interaction and commercial growth and contain hubs serving high-frequency transport*". Metropolitan centres draw customers from a very wide catchment and are typically built on a large retail and commercial GFA base.

  The Westgate Metropolitan Centre is one of Auckland's largest Commercial Centres in terms of land area and GFA and is positioning itself to capture an increasing proportion of the west Auckland market, and having a greater influence on broader Auckland markets, with the development of NZ's first Costco store.

3. POPULATION AND HOUSEHOLD GROWTH

A critical factor in the long-term success of most retail centres is the projected growth of its core economic market over time. The following figure displays the population and household growth projections for the Riverhead catchment. These projections are derived from the latest available Stats NZ subnational population growth projections for both the Medium and High Growth series released in 2021.

FIGURE 2: POPULATION AND HOUSEHOLD ESTIMATES AND FORECAST



Source: Stats NZ

The Riverhead catchment has seen rapid population growth over the last eight years, and sustained growth is anticipated to continue over the foreseeable future.

The most recent population estimate, June 2021, showed a population base of 10,100 people with growth tracking above the High Growth Scenario.

Under Stats NZ High Growth Projection, the population of Riverhead is expected to grow to just over 14,500 residents by 2038, representing a net growth of over 4,400 residents (or a 44% increase). This equates to around 260 additional residents per annum, on average, from the 2021 population base.

The Medium Projection offers a more conservative forecast, suggesting that the identified catchment would have around 12,980 residents by 2038, which is 1,550 fewer than the High Projection scenario. This equates to a 29% increase from the 2021 population base.

Similarly, the number of households is anticipated to grow markedly over the next 17-year period from around 3,300 to around 4,730. This equates anticipated growth of around 1,440 net additional dwellings, or circa 85 dwelling per annum on average.

Historically, the number of households under the projections series was forecast to increase at a faster proportional rate than the population. This is due to a projected fall in the person per dwelling ratio over the forecast period. This anticipated trend was not isolated to the identified catchment but projected to occur across the whole country due to an aging population, smaller families and a higher proportion of 'split' single households.

However, the results of the 2018 Census and subsequent population estimates have shown that the reverse has been true. That is, that the population per household ratio has increased across the country from 2.69 to 2.77 and in the Riverhead catchment from 3.06 to 3.13. There are several potential reasons for this reversed trend, not the least of which relates to the lack of new homes being developed (relative to demand) and rising house prices that has occurred between the last intercensal period.

Overall, the subject development would be a catalyst development in Riverhead and stimulate increased demand due to the significant increase in supply, as such the more historically determined growth projections are likely to be conservative given the significant injection of new supply into the local market stimulating growth.

4. RETAILING DEMAND AND SUSTAINABLE GFA

This section sets out the projected retailing expenditure and sustainable GFA forecasts for the Riverhead catchment. These forecasts have been based on the aforementioned population and household growth projections, retail shopping patterns, and expenditure flows and have been prepared using Property Economics' Retail Model.

A more detailed breakdown of the model and its inputs is set out in Appendix 2.

4.1. RETAILING EXPENDITURE GROWTH MODEL

The following flow chart provides a graphical representation of the Property Economics Retail Model to better understand the methodology and key inputs utilised.

FIGURE 3: PROPERTY ECONOMICS RETAIL MODEL OUTLINE

GROWTH IN REAL RETAIL EXPENDITURE

For the purposes of projecting retail expenditure, growth in real retail spend has been incorporated into the model at a rate of 1% per annum over the forecast period. This 1% rate is based on the level of debt retail spending, interest rates and changes in disposable income levels, and is the average inflation adjusted increase in spend per household over the assessed period.

LAYERED RETAIL CATCHMENTS

It is important to note that the retail expenditure generated in the catchment does not necessarily equate to the sales within that particular area. Residents can freely travel in and out of the catchment, and they will typically choose to shop at retail destinations with their preferred range of stores, products, brands, proximity, accessibility and price points. A good quality offering will attract customers from beyond its core market, whereas a low-quality offering is likely to experience retail expenditure leakage out of its core market.

Therefore, the retail expenditure generated in an area represents the retail sales centres (or retail stores) within that area could potentially achieve and is the key influence on what the market can potentially sustain. Retail outflows should not be interpreted as a negative for any retail activity in the Riverhead catchment, but simply represents normal commercial market mechanisms (competition) and is a consideration that needs to be appropriately accounted for in any analysis.

EXCLUDED ACTIVITIES

The retail expenditure figures below are in 2020 NZ dollars and exclude the following retail activities, as categorised under the Australia New Zealand Standard Industrial Classification (ANZSIC) categorisation system:

- Accommodation (hotels, motels, backpackers, etc.)
- Vehicle and marine sales & services (petrol stations, car yards, boat shops, caravan sales, and stores such as Repco, Super Cheap Autos, tyre stores, panel beating, auto electrical and mechanical repairs, etc.)
- Hardware, home improvement, building and garden supplies retailing (e.g. Mitre 10, Hammer Hardware, Bunnings, PlaceMakers, ITM, Kings Plant Barn, Palmers Garden Centres, etc.)

The above retail sectors have been excluded because they are not considered to be core retail expenditure, nor fundamental retail centre activities in terms of visibility, location, viability or functionality. Modern retail centres do not rely on these types of stores to be viable or retain their role and function in the market as such stores have the potential to generate only non-consequential trade competition effects rather than flow-on retail distribution effects. Therefore, the retail centre network's economic wellbeing and social amenity cannot be unduly compromised.

The latter two bullet points contain activity types that generally have greater difficulty establishing new stores in centres for land economic and site constraint reasons, i.e. the commercial reality is that for most of these activity types it would be unviable to establish new stores in centres given their modern store footprint requirements and untenable to remain located within them for an extended period of time (beyond an initial lease term) in successful centres due to property economic considerations such as rent, operating expenses, land value, operational and functional requirements and site sizes.

Trade orientated activities such as kitchen showrooms, plumbing stores, electrical stores and paint stores are also excluded from the model for similar reasons. This is not to imply that these activity types are not situated in centres, as in many instances some of these store types remain operating in centres as a historic overhang.

However, in the future, it is increasingly difficult from a retail economic perspective to see these store types establishing in centres (new or redeveloped), albeit they likely have equal planning opportunity to do so. As such, demand for these store types is additional to the retail demand assessed in this analysis.

SUSTAINABLE GFA

This analysis uses a sustainable footprint approach to assess retail demand. Sustainable floorspace in this context refers to the level of floorspace proportionate to an area's retainable retail expenditure that is likely to result in an appropriate quality and offer in the retail environment. This does not necessarily represent the 'break even' point, but a level of sales productivity ($/sqm) that allows retail stores to trade profitably and provide a good quality retail environment, and thus economic wellbeing and amenity.

It is also necessary to separate the Gross Floor Area into:

- Net retail floorspace (Sustainable Floorspace); and
- Back office floorspace that does not generate any retail spend.

A store's net retail floor area only includes the area which displays the goods and services sold and represents the area to which the general public has access. By contrast, the Gross Floor Area typically represents the total area leased by a retailer. Back Office Floorspace in a retail store is the area used for storage, warehousing, staff facilities, admin functions or toilets and other 'back office' uses.

These activities, on average, occupy around 25-30% of a store's GFA. It is important to separate out such back office floorspace from sustainable floorspace because back office floorspace does not generate any retail spend. For the purposes of this analysis, a 30% ratio has been applied.

4.2. TOTAL RETAIL EXPENDITURE AND SUSTAINABLE FLOORSPACE

The following table breaks down the Convenience retail and Supermarket retail markets for the identified Riverhead Catchment over the assessed 17-year period to 2038 on an annualised basis. This is based off the High projection scenario in Figure 2.

The Riverhead catchment currently (2021) generates a total 'pool' of around $100m per annum of retail expenditure from which retail stores can draw sales. This is estimated to increase further to $161m per annum by 2038.

Total retail spend includes expenditure in department stores and national banner brands such as Harvey Norman, Moochi, Mecca, Noel Leeming, Rebel Sports, Briscoes, Farmers etc. These activities draw from large catchments and are typically found in larger town and metropolitan centres and shopping malls and would not be anticipated to be efficiently delivered in Riverhead. Expenditure beyond the Convenience and Food Retailing sectors will therefore be serviced by the higher-order centres, such as Westgate / Northwest Shopping Centre

TABLE 1: RIVERHEAD CATCHMENT ANNUAL RETAIL EXPENDITURE ($M)

	2021	2023	2028	2033	2038
Total Generated Retail Expenditure ($m)	$100	$105	$122	$142	$161
Supermarket Expenditure ($m)	$33.4	$35.2	$42.0	$48.8	$56.0
Convenience Expenditure ($m)	$11.6	$11.8	$14.0	$16.2	$19.0
Total Applicable Retail Expenditure ($m)	$45	$47	$56	$65	$75

Source: Property Economics

Supermarket and Convenience Retailing portions of total retail spend amount to $45m for the 2021 base year. This retailing activity represents the spend typically done within a localised area, and consumers are less willing to travel for, thereby giving the retail centre at the Riverhead development site a competitive advantage. With the growth that is anticipated within the Riverhead catchment (under the High Projection), this is estimated to grow to $75m annually by 2038, equivalent to a growth of $30m annually (or 67% increase), in real terms, of generated retail expenditure.

It is important to note that not all of the expenditure that is generated by the Riverhead catchment will be internalised and captured by the local retailers. This is because leakage occurs to larger centres for the agglomeration / destination shopping that occurs as well as transient shopping as Riverhead residents move around. Based on analysis of other similar convenience centres, Property Economics anticipate that the Riverhead catchment is likely to retain is around half of its generated retail expenditure in both the Supermarket and Convenience Retailing categories.

Table 2 shows the level of retail expenditure based on this 50% convenience spend being retained in Riverhead and the associated sustainable floorspace requirements. This shows that the catchment is estimated to capture around $38m in supermarket and convenience retail expenditure by 2038 if a supermarket is built within the subject Structure Plan area. This is translated to a sustainable supermarket of around 3,200sqm by 2038 and nearly 2,100sqm of additional Convenience Retailing.

TABLE 2: RETAINED RETAIL EXPENDITURE AND ASSOCIATED SUSTAINABLE FLOORSPACE

	2021	2023	2028	2033	2038
Supermarket ($m)	$16.7	$17.6	$21.0	$24.4	$28.0
Convenience ($m)	$5.8	$5.9	$7.0	$8.1	$9.5
Retailed Retail Expenditure ($m)	**$23**	**$24**	**$28**	**$33**	**$38**
Supermarket Floorspace (sqm)	1,910	2,010	2,400	2,790	3,200
Convenience Floorspace (sqm)	1,270	1,300	1,540	1,780	2,080
Total Net Floorspace (sqm)	**3,180**	**3,310**	**3,940**	**4,570**	**5,280**

Source: Property Economics

Without a supermarket, the level of Convenience Retail expenditure is likely to be slightly higher as the local residents will be more reliant on 'top-up' food retailers. As Table 3 shows, this raises the total retained convenience expenditure to around $15m by 2038. This is also associated with a sustainable convenience retail provision of 3,360sqm by 2038.

The provision of convenience retail is higher than in Table 2 as other convenience retailers would establish in the centre to cover some of the convenience demand if no supermarket established.

TABLE 3: CONVENIENCE RETAIL EXPENDITURE AND FLOORSPACE WITHOUT SUPERMARKET

	2021	2023	2028	2033	2038
Retained Covenience Expenditure ($m)	$9.5	$10.0	$11.6	$13.5	$15.3
Covenience Retail Floorspace (sqm)	2,090	2,190	2,550	2,960	3,360

Source: Property Economics

4.3. CENTRE LAND REQUIREMENTS

The following table illustrates the total sustainable land requirements for a centre in the subject plan change areas with a Supermarket. This excludes land for urban parks, roads, reserves, playgrounds, and community, education and public transport facilities which may be included to enhance the retail / commercial development and provide additional agglomeration benefits and amenity values for residents. Land for these uses would be additional to the land areas identified in the table.

In addition to the anticipated retail tenancy GFA, 2,640sqm should be enabled for localised commercial service activities. These activities are assumed to all be provided at grade in the context of the Riverhead centre and provide additional GFA for commercial services.

There will be sustainable retail spend generated within the catchment to provide sufficient demand for a supermarket of circa 3,200sqm GFA, and retail and commercial services of 4,720sqm GFA, or 7,920sqm total. However, there is currently around 1,070sqm GFA of retail / commercial service GFA within the catchment leaving a net sustainable level of retail / commercial service GFA of 6,850sqm.

This level of sustainable retail and commercial service GFA is anticipated to require around 1.5ha of land.

TABLE 4: RIVERHEAD CONVENIENCE CENTRE WITH SUPERMARKET

Riverhead Development (incl. Supermarket)	2038
Supermarket Demand ($m)	$28.0
Supermarket Retail GFA (sqm)	3,200
Convenience Retail Demand ($m)	$9.5
Convenience Retail GFA (sqm)	2,080
Non-Retail Commercial Services (sqm)	2,640
Less Existing Catchment Floorspace (sqm)	*-1,070*
Total Retail Floorspace (sqm)	**6,850**
Total Land Requirement (ha)	**1.5**

Source: Property Economics

The following table shows the sustainable retail and commercial service GFA, in the event the area was unable to attract a supermarket tenant. In this instance, the total sustainable retail / commercial GFA equates to around 4,0000sqm, which translates to a total land requirement of just 0.9ha.

TABLE 5: RIVERHEAD CONVENIENCE CENTRE WITHOUT SUPERMARKET

Riverhead Development (excl. Supermarket)	2038
Convenience Expenditure ($m)	$15.3
Convenience Retail GFA (sqm)	3,360
Non-Retail Commercial Services (sqm)	1,680
Less Existing Catchment Floorspace (sqm)	*-1,070*
Total Retail Floorspace (sqm)	**3,970**
Total Land Requirement (ha)	**0.9**

Source: Property Economics

4.4. APPROPRIATE CONVENIENCE OPTIONS

Some of the potential range of tenancy types considered appropriate for a new Riverhead commercial centre, given its convenience role and function in the market, is highlighted in the following list.

This is not intended to represent an exhaustive list, simply an indication of the types of convenience retail and commercial & professional services businesses that could fit seamlessly into such a centre that would meet the local community's convenience and frequently required commercial needs.

EXAMPLES OF CONVENIENCE RETAIL STORE TYPES

- Supermarket / Superette / Dairy / Mini mart
- Fish shop
- Butcher
- Bakery
- Post Shop / Stationery
- Fruit & Vegie Shop
- Delicatessen
- Cake Shop
- Ice Cream Parlour
- Liquor / Wine Shop
- Takeaways (Fish & Chips, Pizza, Chinese, Thai, Turkish, Indian, etc.)
- Cafés & Restaurants
- Newsagent
- Pub / Bar / Tavern

- Florist
- Gift Shops
- Pharmacy

EXAMPLES OF CONVENIENCE COMMERCIAL / PROFESSIONAL SERVICE ACTIVITIES

- Optometrist
- Locksmith
- Hairdresser
- Drycleaners
- Doctors
- Accountants
- Physiotherapists
- Medical practitioners
- Dentists
- Travel agency
- Childcare facilities
- Banks
- Financial Advisors
- Gym
- Lawyers

5. CONCLUSION

The Westgate Metropolitan centre is well positioned to service the higher-order shopping needs of the Riverhead catchment and wider Northwest market. For this reason, any centre in Riverhead should service the immediate needs of the local residents with consideration for the likely loss of retail dollars to the other retail centres.

The strong population growth in the Riverhead catchment means additional retail floorspace will be required over the next 17 years and the advent of RLG's residential development(s) would only catalyse this growth.

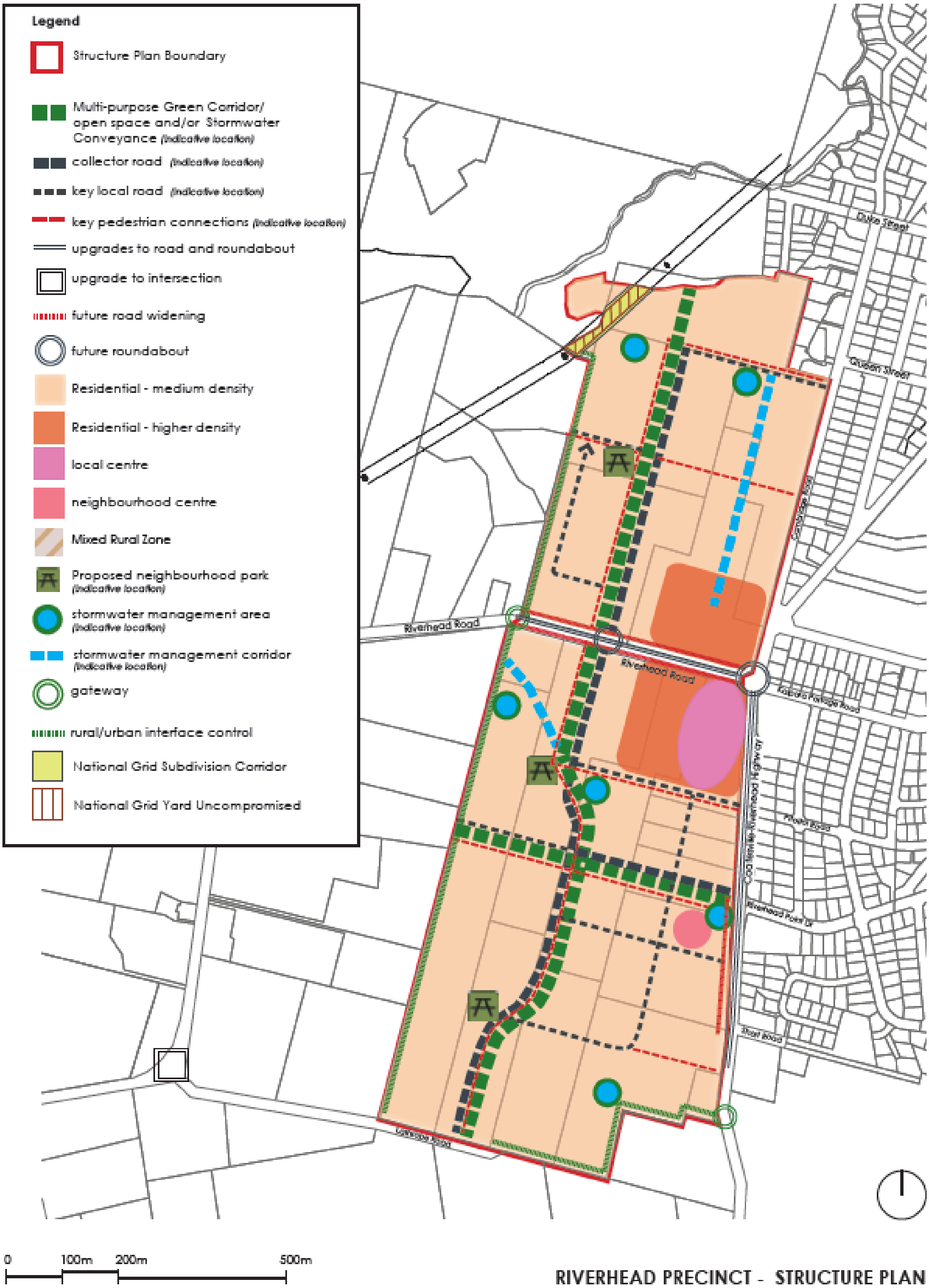
The current population of Riverhead is not well catered for at present in terms of convenience retail and commercial services provision. This results in the vast majority of locally generated convenience spend currently leaving the catchment and being spent elsewhere. Moving forward, and with the subject plan change development, this inefficiency would only be exacerbated in the future.

Although the current local centre covers 0.91ha of land and accommodate significantly more retail, two thirds of it is absorbed by existing non centre land uses and it is split across four separate sites. A new local centre in the Riverhead development therefore represents an opportunity to develop a more consolidated centre to better meet the convenience requirements and growth in this local market.

The Riverhead catchment is estimated to generate sufficient spend on an annualised basis to sustain around 6,850sqm of net additional retail / commercial GFA within the catchment on top of the 1,070sqm of existing provision. This equates to a supermarket and convenience retail centre land requirement of around 1.5ha. Without a supermarket a centre of circa 1ha can be sustained. This provision can be accommodated within a single commercial centre, or a slightly smaller (local) centre and supplementary smaller neighbourhood centre(s).

Additional to this land requirement is land for any public squares, community facilities, reserves, playgrounds, urban spaces, ay public transport facilities, etc. the developer may want to incorporate into the centre. If incorporated this could increase the land requirements to around 2ha and 1.5ha respectively.

APPENDIX 1: CONCEPT STRUCTURE PLAN



Source: Riverhead Landowner Group

APPENDIX 2: PROPERTY ECONOMICS RETAIL MODEL

This overview outlines the methodology that has been used to estimate retail spend generated at Statistical Area 1 level for the identified catchment out to 2048.

Statistical Area 1 2018 Boundaries

All analysis has been based on Statistical Area 1 2018 boundaries, the most recent available.

Household Estimates

Statistics New Zealand publish household estimates derived from the NZ Census 2018 base. As a driving input into Property Economics Retail Expenditure Model, several assumptions have been made. Specifically, the household count from the 2018 Census (available at the SA1 level) have been used to estimate the 2021 household numbers based on the population growth from Statistics NZ's population estimates, while also making adjustments for changes in the population per household ratios at a national level.

Population Growth

The population growth projections utilised in projecting future household retail growth are shown earlier in this report. Although the demographics at the household level drive the estimates in the distribution of the household retail spend, the growth in population has been used as the input to project future retail growth.

Statistics New Zealand's latest household projections are based on the assumption of a decreasing household size, resulting in proportionally greater household growth than population. However, the Household Expenditure Survey shows a clear positive relationship between household size and retail expenditure. Therefore, relying solely on the household growth as an indicator without adjusting for the changing demographic would artificially inflate the projected retail growth.

Given the recent trends of an increasing household size contrary to the projection assumptions, Property Economics considers projecting the retail growth based on future population growth rather than households is a more appropriate assumption. This is ultimately a conservative assumption in the decreasing household size scenario and will be more accurate the less the demographics shift.

International Tourist Spend

The total tourism retail spend has been derived from the Tourism Satellite Account and distributed to each District according to the data as published by MBIE. Within each district, this has been distributed on a 'spend per retail employee' basis. Employees are the preferred basis for distributing regional spend geo-spatially as tourists tend to gravitate toward areas of commercial activity, however they are very mobile.

Total Tourist Spend Forecast

Growth is forecast in the model at 3% per annum.

Average Household Retail Spend

The 2019 Household Expenditure survey breaks down average weekly spend by retail category on a national level by annual household income brackets and by the average number of usual residents. These have been applied to each of the geospatial units based on the distribution of household size and income for that geospatial unit as determined in the 2018 Census.

While there are variables other than household income that will affect retail spending levels, such as wealth, access to retail, population age, household types and cultural preferences, the effects of these are not able to be assessed given data limitations, and have been excluded from these estimates.

Real Retail Spend Growth (excl. trade-based retailing)

Real retail spend growth has been factored in at 1% per annum. This accounts for the increasing wealth of the population and the subsequent increase in retail spend. The following explanation has been provided.

Retail Spend is an important factor in determining the level of retail activity and hence the 'sustainable amount 'of retail floorspace for a given catchment. For the purposes of this outline 'retail' is defined by the following categories:

- Food Retailing
- Footwear
- Clothing and Softgoods
- Furniture and Floor coverings
- Appliance Retailing
- Chemist
- Department Stores
- Recreational Goods
- Cafes, Restaurants and Takeaways
- Personal and Household Services
- Other Stores.

These are the retail categories as currently defined by the ANZSIC codes (Australia New Zealand Standard Industry Classification).

Assessing the level and growth of retail spend is fundamental in planning for retail networking and land use within a regional network.

Internet Retail Spend Growth

Internet retailing within New Zealand has seen significant growth over the last few decades. This growth has led to an increasing variety of business structures and retailing methods including; internet auctions, just-in-time retailing, online ordering, virtual stores, and etc.

Additionally, growth of internet retailing for virtual stores, auctions and overseas stores is leading to a decrease in on-the-ground spend and floor space demand. In order to account for this, a non-linear percentage decrease of 8% in 2020 growing to 12.5% by 2043 has been applied to retail expenditure encompassing all retail categories in our retail model. These losses represent the retail diversion from on-the-ground stores to internet-based retailing that will no longer contribute to retail floor space demand.

Retail Spend Determinants

Retail Spend for a given area is determined by: the population, number of households, size and composition of households, income levels, available retail offer and real retail growth. Changes in any of these factors can have a significant impact on the available amount of retail spend generated by the area. The coefficient that determines the level of 'retail spend' that eventuates from these factors is the MPC (Marginal Propensity to Consume). This is how much people will spend of their income on retail items. The MPC is influenced by the amount of disposable and discretionary income people are able to access.

Retail Spend Economic Variables

Income levels and household MPC are directly influenced by several macroeconomic variables that will alter the amount of spend. Real retail growth does not rely on the base determinants changing but a change in the financial and economic environment under which these determinants operate. These variables include:

Interest Rates: Changing interest rates has a direct impact upon households' discretionary income as a greater proportion of income is needed to finance debt and typically lowers general domestic business activity. Higher interest rates typically lower real retail growth.

Government Policy (Spending): Both Monetary and Fiscal Policy play a part in domestic retail spending. Fiscal policy, regarding government spending, has played a big part recently with government policy being blamed for inflationary spending. Higher government spending (targeting on consumer goods, direct and indirectly) typically increases the amount of nominal retail spend. Much of this spend does not, however, translate into floors pace since it is inflationary and only serves to drive up prices.

Wealth / Equity / Debt: This in the early-mid 2000s had a dramatic impact on the level of retail spending nationally. The increase in property prices has increased home owners unrealised equity in their properties. This has led to a significant increase in debt funded spending, with residents borrowing against this equity to fund consumable spending. This debt spending is a growth facet of New Zealand retail. In 1960 households saved 14.6% of their income, while households currently spend 14% more than their household income.

Inflation: As discussed above, this factor may increase the amount spent by consumers but typically does not dramatically influence the level of sustainable retail floor space. This is the reason that productivity levels are not adjusted but similarly inflation is factored out of retail spend assessments.

Exchange Rate: Apart from having a general influence over the national balance of payments accounts, the exchange rate directly influences retail spending. A change in the $NZ influences the price of imports and therefore their quantity and the level of spend.

General consumer confidence: This indicator is important as consumers consider the future and the level of security/finances they will require over the coming year.

Economic / Income growth: Income growth has a similar impact to confidence. Although a large proportion of this growth may not impact upon households MPC (rather just increasing the income determinant) it does impact upon households discretionary spending and therefore likely retail spend.

Mandatory Expenses: The cost of goods and services that are necessary has an impact on the level of discretionary income that is available from a household's disposal income. Important factors include housing costs and oil prices. As these increase the level of household discretionary income drops reducing the likely real retail growth rate.

Current and Future Conditions

Retail spend has experienced a significant real increase in the early-mid 2000s. This was due in large part to the increasing housing market. Although retail growth is tempered or crowded out in some part by the increased cost of housing it showed massive gains as home owners, prematurely, access their potential equity gains. This resulted in strong growth in debt / equity spending as residents borrow against capital gains to fund retail spending on consumption goods. A seemingly strong economy also influenced these spending trends, with decreased employment and greater job security producing an environment where households were more willing to accept debt.

New Zealand's economy has been market by several key events over the last two decades. Firstly, this trend temporally reversed in light of the worldwide GFC recession in 2008 with economic uncertainty and job losses reducing consumers' willingness and ability to accept debt. Following this however, New Zealand's economy recovered with growth in the first half of the decade driven by the Christchurch Earthquake Rebuild. Additionally, rapid inflation in the construction industry has contributed to the rapidly rising house prices. This has had a significant impact on reducing the disposable income which has flow-on effects to the rate of retail growth. Finally, most recently the COVID-19 Global Pandemic resulted in a National Lockdown with retailers forced to close under Alert Level 3 and 4 and operate under restrictions in the traffic light settings.

Despite this, New Zealand's economy so far has not fallen to the same extent economists predicted heading into the first lockdown during the first quarter of 2020. Data available on Statistics New Zealand showed that total Electronic Retail expenditure declined by only 0.2% between 2020 and 2019. This is in comparison to the average annual growth of just over 5% per annum between 2010 – 2019.

From an economist perspective, COVID-19 represents significant uncertainty and thereby making the already difficult job of anticipating the future, that much harder. There are several unpredictable factors that will decide the fate of worldwide economy and it is difficult to accurately predict what long term impacts this global pandemic will have on international travel, the domestic economy and retail trends as it relates to internet retailing.

Impacts of Changing Retail Spend

At this point in time a 1% real retail growth rate is being applied by Property Economics over the longer term 30-year period. This rate is highly volatile however and is likely to be in the order of 0.5% to 1% over the next 5 – 10 years rising to 1% - 2% over the more medium term as the economy stabilises and experiences cyclical growth. This would mean that it would be prudent in the shorter term to be conservative with regard to the level of sustainable retail floor space within given centres.

Business Spend

This is the total retail spend generated by businesses. This has been determined by subtracting International Tourism retail spend and the Household retail expenditure from the Total Retail Sales as determined by the Retail Trade Survey (RTS) which is prepared by Statistics NZ. All categories are included with the exception of accommodation and automotive related spend. In total, Business Spend accounts for 36% of all retail sales in NZ. Business spend is distributed based on the location of employees in each Census Area Unit and the national average retail spend per employee.

Business Spend Forecast

Business spend has been forecasted at the same rate of growth estimated to be achieved by household retail sales in the absence reliable information on business retail spend trends. It is noted that while working age population may be decreasing as a proportion of total population, employees are likely to become more productive over time and therefore offset the relative decrease in the size of the total workforce.