



Kaiapoi Town Centre Business Land Requirements Peer Review

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Contents

1	INTRODUCTION	4
1.1	BACKGROUND.....	4
1.2	PEL SCOPE AND OBJECTIVES	4
2	BACKGROUND DATA	5
2.1	KAIAPOI CORE ECONOMIC MARKET	5
2.2	DEMOGRAPHIC PROFILING	5
2.3	POPULATION AND HOUSEHOLD PROJECTIONS	5
2.4	EMPLOYMENT TRENDS AND PROJECTIONS	6
2.5	BUSINESS LAND PROJECTIONS.....	9
3	DEMAND AND SUPPLY	8
3.1	RETAIL EXPENDITURE AND SUSTAINABLE GFA	8
3.2	CURRENT BUSINESS LAND ENVIRONMENT	9
3.3	RETAIL SPENDING PATTERNS	9
3.4	NORTHERN CHRISTCHURCH CORRIDORS	13

1 Introduction

1.1 Background

Property Economics Ltd (“PEL”) was engaged by Waimakariri District Council (“WDC”) to undertake an economic assessment of the Kaiapoi Town Centre (“KTC”) with a focus on quantifying the future business land requirements of the town. The output of that assessment was the report “Kaiapoi Town Centre Business Land Requirements” (October 2015).

Market Economics Ltd (M.E) has been commissioned by WDC to peer review PEL’s assessment and report, and provide feedback to WDC. This document provides a summary of our review. We have used broadly the same headings as PEL for ease of reference, although in a slightly different order.

1.2 PEL Scope and Objectives

The PEL report’s introduction outlines the scope and objectives of its assessment. The objectives of the PEL report are to:

- Identify the KTC’s trade catchment, and then to understand the current and projected market size and characteristics (demographics).
- Use future market size as the basis for quantifying retail demand and sales and the amount of space that would be required to accommodate those future sales.
- Understand retail spending origin and destination patterns in Kaiapoi.
- Quantify the total current supply of retail floorspace in the KTC.
- Assess commercial (non-retail, including commercial service, office and light industry) demand growth and land requirements in Kaiapoi.
- Make recommendations as to the most efficient and practical way of accommodating future retail and non-retail activity in Kaiapoi.

In our opinion, this is an appropriate suite of objectives to provide a sound basis for establishing future business land requirements, and PEL’s assessment meets these objectives. The 2043 horizon is an appropriate planning horizon, and is consistent with the horizon of many current economic and demographic projection sets.

2 Background Data

In this section we review the contextual and input data on which PEL's assessment is based. Our review considers the source and accuracy of the data, as well as how it is interpreted and applied by PEL.

2.1 Kaiapoi Core Economic Market

The Kaiapoi core retail catchment applied by PEL is a reasonable catchment to use in the assessment. As PEL note, not all of the resident spend in the catchment will be directed to stores in Kaiapoi due to spend leakage, however the catchment identified represents a good indication of the area within which residents would see Kaiapoi as their primary shopping destination.

2.2 Demographic Profiling

We have not reviewed PEL's section 4 or Appendix 1 in any detail. Those parts of the report appear to have little bearing on the core (future land demand) analysis of the report, and seem to be provided as background contextual information only. We understand from Appendix 2 that the demographic profiles are implicitly part of the assessment through their inclusion in PEL's retail models, which factor in socio-demographic variables in their demand calculation.

2.3 Population and Household Projections

In its retail assessment, PEL has applied "district growth projections"¹ supplied by WDC. PEL does not state the resolution that these projections were supplied at (District-wide totals only, or CAU or meshblock-level), although the catchment identified in PEL's section 3 appears to be defined as an aggregation of meshblocks. If the WDC projections were not supplied at a meshblock resolution, PEL must have applied some process to split the projections from the resolution supplied at to the finer (meshblock) level required to calculate catchment summaries. No information is provided as to how that splitting was undertaken (if in fact it was required).

PEL states that it has not checked the validity of the projections. We have not either, although we do note that for both population and households the projected growth (numbers and percentages) increases near the 2043 horizon. Under the High Scenario, population growth is projected to be 8.1% in the period 2018-2023, then 9.1%, and 11.2% in 2033-2038 and 2038-2043. This means that population growth in 2038-2043 (568 people) will be more than double growth in 2018-2023 (265). Given PEL have relied on WDC projections it is not surprising that this has not been explained in their report, but it is an interesting matter which might warrant

¹ p14

a brief mention if clarification about the driver of this increasing growth rate can be provided by WDC.

In our opinion it is appropriate that PEL focus on the High growth scenario to ensure sufficient capacity is provided.

2.4 Employment Trends and Projections

PEL's employment assessment is summarised to four key sectors (Industrial, Retail, Commercial, and Other) (in section 11). No definition is provided for the activities included within each sector, which means we are unable to provide any opinion as to the suitability of the groupings used. These groupings are important within the assessment, because the employment projections drive projections of additional land required.

PEL provides some assessment of recent historical changes in Kaiapoi employment, and we agree with their interpretation of trends including the effects of the Global Financial Crisis, Christchurch earthquake and earthquake recovery process. We also agree with PEL's interpretation of the low level of employment in Waimakariri relative to the size of the labour force resident there (section 10.2).

PEL outlines the factors that influence their employment projections (section 11.1), and these are generally appropriate, although the assumptions made for each factor are not described so it is not possible to critically assess them. We accept that those assumptions are likely to be sensitive from an intellectual property perspective and so have limited our review to projection output and key metrics that can be derived from them and other information in the report (e.g. employment per capita and land densities).

We make the following observations about PEL's employment projections:

- The projections indicate a relatively stable employment per capita into the future. That indicates an increasing labour force participation rate due to the decline in share of the population that will be of working age (due to the aging population). This is broadly consistent with our understanding of expected future employment trends.
- One point to note is the 30% undercount of employee numbers referred to by PEL². As we understand it the undercount arises not because employees "do not register the location of their job and therefore are not covered by this statistic", but rather because a proportion ("up to 30%") are not actually paid employees but rather are working proprietors of their own businesses, including contractors.
- PEL have not explained how they have compensated for that undercount. Our employment data accounts for the undercount by applying counts of working proprietors at a spatially detailed (meshblock) level, but PEL have not described whether they do this or apply some coarser average (e.g. "up to 30%", possibly

² p38

from national-level data). The size of the undercount in Kaiapoi and Waimakariri is likely to vary significantly from the national average, due to the different industries dominant in the District and their employee to working proprietor ratio. This is a potential source of error in understanding both the current and therefore future employment expected in Waimakariri, as well as business land demand to accommodate employment.

- The total row in Table 7 does not equal the sum of the four sectors, although it does in Table 8. The difference between the sum of the sectors and the given total is immaterial in the context of the assessment.
- PEL have noted that Industrial employment in Waimakariri will increase as a share of total District employment (increasing from 37% to 39% from their Table 7), but do not provide any reason why this is expected. The share of Retail employment is projected to decrease slightly. Similar patterns are projected for Kaiapoi, where Industrial employment will increase from 47% in 2014 to 52% in 2043, and Retail will decrease from 18% to 15%. It would be useful to have some brief explanation as to the drivers of this changing structure. We accept PEL's observation that Retail employment is still projected to grow, and that the decreased share is due to faster growth in Industrial employment.
- Industrial employment in Kaiapoi is projected to grow by 90% (2014-2043), whereas slower growth of 75% is projected for the District as a whole. This means that outside of Kaiapoi, Industrial employment in Waimakariri is projected to grow by 68%. Growth in the other three sectors is projected to be relatively similar in Kaiapoi compared to elsewhere in Waimakariri, and no explanation is provided as to why Industrial growth is the exception.
- It is not clear to us why the projected employment growth varies as it does in each five-year period. From Table 7, Industrial employment growth in each five year period (2018-2023, 2023-2028 etc.) remains relatively stable around 600 employees per year, although with a low of 530 in 2028-2033, and a high of 671 in the following period. For Retail there is a larger variation, with a low of 114 employees in 2028-2033, and a high of 311 in the following period. A similar pattern is apparent in the Kaiapoi projections (Table 8), with 2028-2033 being a slow growth period and 2033-2038 being much faster growth. Ultimately this is unlikely to make any difference to the amount of additional land required in Kaiapoi in the long-term, although is an unusual pattern that warrants some brief explanation.

3 Demand and Supply

3.1 Current Town Centre Retail Supply

We agree with PEL's assessment of the current range of offer and retail role of Kaiapoi, namely the strong convenience role and limited higher order retail stores.

3.2 Retail Expenditure and Sustainable GFA

PEL does not specifically describe their methodology for deriving retail land requirements, although from the information provided we understand that the process they have applied is probably as follows:

- a) Use population projections supplied by WDC (reviewed in section 2.3 above).
- b) Apply PEL retail models to quantify the total retail spend (\$) generated by that population, as well as by other market segments (tourists, businesses etc.).
- c) Assess where the resident retail spend in Kaiapoi is actually spent (e.g. the proportion that does not flow to Christchurch etc., in PEL's section 8).
- d) Make an assumption about how the proportion of total resident spend locally might change over time. This is assumed to increase from the current 45%³ to 50-60% (the mid-point of 55% is applied⁴). This is a reasonable assumption in our opinion.
- e) Assess the amount of floorspace required to support the level of future spending from d) that is likely to be retained locally in Kaiapoi. This requires assumptions about the average sales productivity (\$/m²), which appear reasonable (they are not specifically stated by PEL, but calculated by us to be approximately \$8,700/m² for supermarket retail, \$2,900-3,000/m² for LFR and \$5,950/m² for specialty).
- f) Translate this amount of floorspace into a land area needed. PEL has not stated the assumptions made in this step, although we calculate that PEL has probably applied a site coverage of around 50%⁵. This site coverage is a little higher than we would typically apply (40-45%) in a conversion of building footprint to site area for a centre like Kaiapoi where relatively low density development predominates. Applying our number would give an estimate of 5.8-6.5 ha of retail land required, compared to

³ p30

⁴ p32

⁵ We have calculated this as follows: Total spend coming from the core market in 2043 is \$257m (Figure 4). Of that 55% can be retained locally (\$141m, presumably the "over \$140m" from p32) which would be about 26,000m² at \$/m² rates that can be derived from Table 1 (sustainable GFA) and Figure 4 (core market spend). The retail land required (Table 9) is stated to be 5.0 ha (p32), which would be a site coverage of around 50% given a building footprint of 2.6 ha.

PEL's 5.0 ha, although the appropriate figure to apply is subjective and PEL's apparent figure of 50% is not unreasonable.

- g) Compare sustainable local floorspace projections against current supply to quantify any additional land required in Kaiapoi to support retail demand. We have not been able to check this calculation as PEL do not provide the total current amount of land occupied (other than in aggregate in Table 11, and current floorspace in Table 2). The 5.0 ha of total land required for retail activities (p32) and the total additional land required (2.5 ha from Table 9) imply that current retail land amounts to 2.5 ha.

In our opinion that is an appropriate methodology.

PEL's assessment appropriately excludes⁶ certain retail activities (accommodation, vehicle and marine sales and service, hardware and garden centres and trade retail such as plumbing showrooms) which are more commonly found outside centres than inside them. However it is unclear to us whether demand for space in these activities is then picked up in other categories (e.g. industrial?). Demand for business land that will house vehicle sales, hardware and garden centres etc. should be picked up somewhere in PEL's projections, although it is not clear where it is (if at all).

PEL apply an average annual growth in real spend of 1%⁷ in their demand projections, which is in our opinion appropriate based on recent spend trends.

3.3 Retail Spending Patterns

One key driver of future retail land requirements will be the proportion of spend captured within Kaiapoi. To assess that, PEL have undertaken an analysis of Marketview data which describes customer origin and destination. We understand and agree with the general approach applied by PEL for this assessment, however are unclear with one matter.

PEL state that the "retail transactional data sources for the Kaiapoi Town Centre are based on previous analysis undertaken for CC in 2008". We are not clear whether this means the data itself is from 2008, or whether the destination (i.e. centres) structure is from the 2008 study, but with updated (say 2014/2015) data.

The data used shows that the Kaiapoi Town Centre captures (or captured) around 45% of the spend generated locally (p 30). PEL then assume that this proportion might increase to 50-60% by 2043⁸.

As PEL note there are several shortcomings with using that 2008 study as the basis of the current assessment:

- The data (or structure?) refers to a pre-earthquake Canterbury, however much has since changed. While PEL state that this means that the 2008 data is effectively a

⁶ p16

⁷ p17

⁸ p32

baseline to which current patterns might return, it may be that the significant changes in retail provision (where in Christchurch, Kaiapoi and other places retail is located, and how much is in each place) may persist and do not represent “potential post-recovery market opportunity “ for Kaiapoi. That is, the Kaiapoi Town Centre might be a much more (or less) attractive centre in the future than it was before the earthquakes.

- Only the centres listed in PEL’s Appendix 3 were included in the study, and out of centre spend is not accounted for. No indication is given as to the significance of this out of centre spend compared to in-centre spend. We would expect that most of the spend in Christchurch and Waimakariri would be directed to the centres identified, but this is not quantified and will have some influence on the proportion of spend retained locally.
- New developments (e.g. the Southbrook Pak’n Save) are not accounted for in the distribution. The new Pak’n Save may have resulted in a redistribution of spend away from the Kaiapoi Town Centre’s supermarkets (New World and Countdown), but also may have resulted in a repatriation of supermarket spend by Kaiapoi residents that previously flowed to Christchurch stores. In the latter instance this may increase the overall attractiveness of the Kaiapoi Town Centre, and could mean that the 50-60% target is too low. Either way it would be useful to understand how new retail developments in the District have changed shopping patterns.

We accept that Marketview data can be expensive to purchase which may prohibit updates for projects such as this one, but overall have some concerns with the currency of the data used. Ultimately however the data is only used (as far as we can tell) to derive an estimate of potential future local retention of spend (set at 50-60% by PEL), so the benefits of purchasing that data and updating previously used models may not yield much analytical benefit.

Overall, we would expect that there would be some potential for the amount of spend retained locally in Kaiapoi would be likely to increase over time as local retail offer increases. If the local retention is still around 45% as indicated from the Marketview data assessed, then an increase to 50-60% would in our opinion be reasonable. If however the earthquakes have significantly changed that 45% (either up or down), that 50-60% target may be too low (or high).

3.4 Business Land Projections

PEL devote some effort to describing the current retail environment, projecting future retail spending in Kaiapoi and the floorspace (and land area) that will be required to support this spending. Considerably less detail is provided for non-retail business land (i.e. industrial and commercial land). This is not necessarily inappropriate, but there is little description of the methodology applied to project the demand for industrial and commercial space. It would seem logical that the business land projections (sections 11.1 and 11.2) are based on the preceding employment projections (section 11), although this is not stated.

The approach we would expect to have been applied would be to use employment projections as the driver of growth, and then apply ratios of floorspace or land area per employee to calculate the land those employees would be expected to occupy. Cross-checking using data from other tables (8 and 9) indicates that this is probably the approach applied, and that the ratios of floor area per employee (and the subsequent conversion from floor area to land area) are based on reasonable assumptions. Some commentary about the approach applied in this process to calculate the industrial and commercial land requirements would be useful.

3.4.1 PEL Preferred Methodology (Section 11.1)

We note that while the employment projections apply four key sectors (Industrial, Retail, Commercial, and Other), the additional business land required (Table 9) uses Industrial, Retail, Commercial Office and Commercial Service sectors. It is not clear to us how the Commercial Office vs Commercial Service distinction is drawn (or again which activities fall into each category) given the employment projections are presented for only one commercial sector. We assume that a more detailed sectoral structure underlies the final output presented in PEL's report to enable a split between Commercial Office and Services floorspace requirements.

It is also not clear why there is no "Other" sector in the business land projections. It may be that employment in the Other sector will not generate the need for additional business land because of the type of industries in that sector (possibly education, health etc.), but this is not stated in the report.

The business land projections are driven by the employment projections, as discussed above, and the variation in growth rates between periods (as discussed in our section 2.4) flows through to creating variable additional land requirements in each period. As a result there are several matters that we believe warrant some explanation from Table 9:

- For Industrial land, an additional 5.1 ha is required to be added in the five year periods ending 2023, 2033 and 2043, while the figure is higher (6.0-6.1 ha) in between (the periods ending 2028 and 2038).
- Commercial Office land required is relatively stable at 0.4-0.5 ha in every period except 2038 (0.7 ha).
- The additional land required for retail in the five years ending 2033 (0.5 ha) is only slightly less than in the period ending 2038 (0.6 ha), despite total employment growth in the years to 2033 (30) being less than half the next period (88, from Table 8). This equates to the average space required per employee in 2028-2033 being more than double in 2033-2038.

We would expect employment growth to be relatively stable across all future periods, and additional business land required to be similarly stable. However, if employment growth in any given period were to vary much from neighbouring periods, we would then expect the land required by that sector to vary accordingly.

As stated against the employment projections, these fluctuations are ultimately unlikely to make any difference to the amount of additional land required in Kaiapoi in the long-term, although warrant some explanation.

Notwithstanding the unexpected fluctuations between periods, the projected land requirements produced under PEL's preferred methodology (section 11.1) appear reasonable overall. We have derived from those projections various indicators (ECs/ha, m²/EC, ECs/capita) which confirm that PEL's projections are of a similar quantum to those we would have assessed in total over the period to 2043.

3.4.2 Alternative Methodology (Section 11.2)

PEL has presented, apparently at the request of WDC, an alternative methodology for land requirements. As we understand it, that methodology takes Kaiapoi's share of the total future District population (from WDC projections, and under the Low growth scenario) and assumes that share will also apply to employment. That yields Kaiapoi employment projections, from which business land requirements in Kaiapoi are derived.

Population projections for Waimakariri District are not provided in the report (only for Kaiapoi), so we have been unable to check the derivation of the projections under this alternative methodology. The projections of business land required in Kaiapoi under PEL's preferred approach (Table 9) are higher than the alternative per capita approach (Table 10) by 83% in 2043 (39.8 ha compared to 21.7 ha). Our understanding of this 83% difference is that it is largely driven by the application of the Low scenario population growth⁹, with a smaller part of the difference attributable to the per capita methodology.

In general terms we agree with PEL that their preferred approach is a more robust method of assessing future business land requirements, because there will be more factors driving those requirements than just population growth. Further, the higher population growth scenario would be a more appropriate basis for this assessment (than the low scenario which we understand has been applied) in order to be conservative and confident that sufficient land is provided to accommodate future business growth.

3.5 Current Business Land Environment

PEL's assessment of current business land in Kaiapoi (section 11.3) is based on WDC data, and appears robust to us. Section 11.4 provides some coverage of suitable and non-suitable areas for future business development in Kaiapoi. That data is picked up only in the Executive Summary in discussion as to which sites within Kaiapoi might accommodate business land growth. The commentary about this in the Executive Summary is useful, but should have been included in the body of the report (e.g. section 11) rather than being reserved only for the summary.

We note that Placemakers has already established (late 2015) on part of the Clampett Plan Change land (SH1/Smith St), so the 8ha identified as vacant there is now slightly less than that,

⁹ Per description in paragraph 2, p42, although this is not completely clear to us from the text

although this is probably balanced out because that land accommodates a portion of the expected future growth in land demand. We accept that there will inevitably be new developments occurring continuously in a high growth location such as Kaiapoi, and recognise that PEL's report presents an appropriate starting point for the set point in time when it was completed.

3.6 Northern Christchurch Corridors

We generally agree with PEL's observations in this section. It is unclear to us how (if at all) the assessment here has been used in the land requirements assessment, or if the Corridors information is used as background/contextual information only. Presumably the Corridors information has influenced PEL's locally retained retail spend target (50-60%, as discussed above) although this is not stated. Similarly new road links may be a driver of the expected increasing industrial land growth PEL have assessed, although this is not clear.

Overall, there are some important observations made in this section that might have significant effects on Kaiapoi's growth outlook, and it is not clear to us the extent to which these observations have been accounted for in the preceding assessment. The potential effects of changes to the road network would be difficult to quantify, however they should be factored into the land requirement assessment. Some additional commentary in the report that indicates this consideration would be useful.

4 Conclusion

Overall PEL's assessment is based on an appropriate methodology and the assumptions made generally appear to be reasonable. The report would benefit from improved description of the methodology and assumptions for transparency, and there are two assumptions that are made without any supporting explanation, as explained below. While those assumptions appear to be reasonable, without supporting explanation it is not possible for us to provide a definitive opinion as to their appropriateness.

The assumptions which we believe require some supporting explanation are:

- The employment projections that drive industrial and commercial land requirements. If employment growth in those sectors occurs at a much different rate to that projected by PEL, the business land required would be expected to vary accordingly. We note that those projections anticipate Kaiapoi becoming an increasing focus for industrial activity in Waimakariri, the reasons for which are not explained. Without any explanation, it is not possible for us to provide an opinion as to the appropriateness of the assumption about high industrial employment growth in Kaiapoi.
- The retail land demand projections are dependent on an assumption about the future local retention of retail spend. That number appears to be influenced by some pre-earthquake (2008) assessment conducted for Christchurch City. Additional explanation about the currency of the data used in that assessment would improve the transparency of the assumption about the future target for local retention (50-60%).

In addition to these two key assumptions, the assessment is quite heavily dependent on the population projections which underlie the assessment. If population growth differs significantly from the high growth scenario applied the business land required would be expected to vary accordingly. This is only a matter for WDC to be aware of, and as long as WDC have confidence in the population projections the way those projections are used in the assessment is appropriate.