Business Development Capacity Assessment 2017

Future Proof Partners: Hamilton City, Waikato District, Waipa District

16 July 2018

m.e consulting

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Executive Summary

New Zealand is a highly urbanised economy. The vast majority of people and businesses are located inside urban centres. City economies are highly productive and cities are a highly efficient way to house populations with small environmental footprint. Urban economies are the centres of knowledge and innovation. They serve as production and service centres for the country because the production of goods and services is more efficient in high density environments.

Local authorities have an important role to play in the operation of city economies, primarily through planning for growth. Ensuring the appropriate provision of development opportunities means businesses and households are accommodated in appropriate locations. The Urban area maximises efficiency and effectiveness through appropriate urban form, achieving economies of scale and the innovation and creativity needed to grow. Efficiently functioning urban areas help maximise national economic output and wellbeing.

To this end the national government has released a national policy statement to provide direction to decision makers under the RMA on planning for urban environments. The NPS-UDC covers development capacity and aims to ensure that planning decisions enable the supply of business land needed to meet business demand.

The NPS-UDC contains a number of objectives and policies that aim to meet those objectives. This report aims to assist in meeting Objective Group B – Evidence and monitoring to support planning decisions. Under Policy PB1, Councils are required to, "*on at least a three-yearly basis, carry out a housing and business development capacity assessment that;*

a) ……
b) *Estimates the demand for the different types and locations of business land and floor area for business, and the supply of development capacity to meet that demand, in the short medium and long terms, and*
c) *Assess the interaction between housing and business activities, and their impacts on each other.*"

The assessment needs to contain information on; the current economy and likely future economic growth by sector, the amount of capacity enabled under the current planning provisions plus any other strategic planning documents by type and location, as assessment of the feasibility or developability of that capacity and finally an assessment of the sufficiency of capacity to meet the foreseeable demands arising in the urban area in the short, medium and long terms.

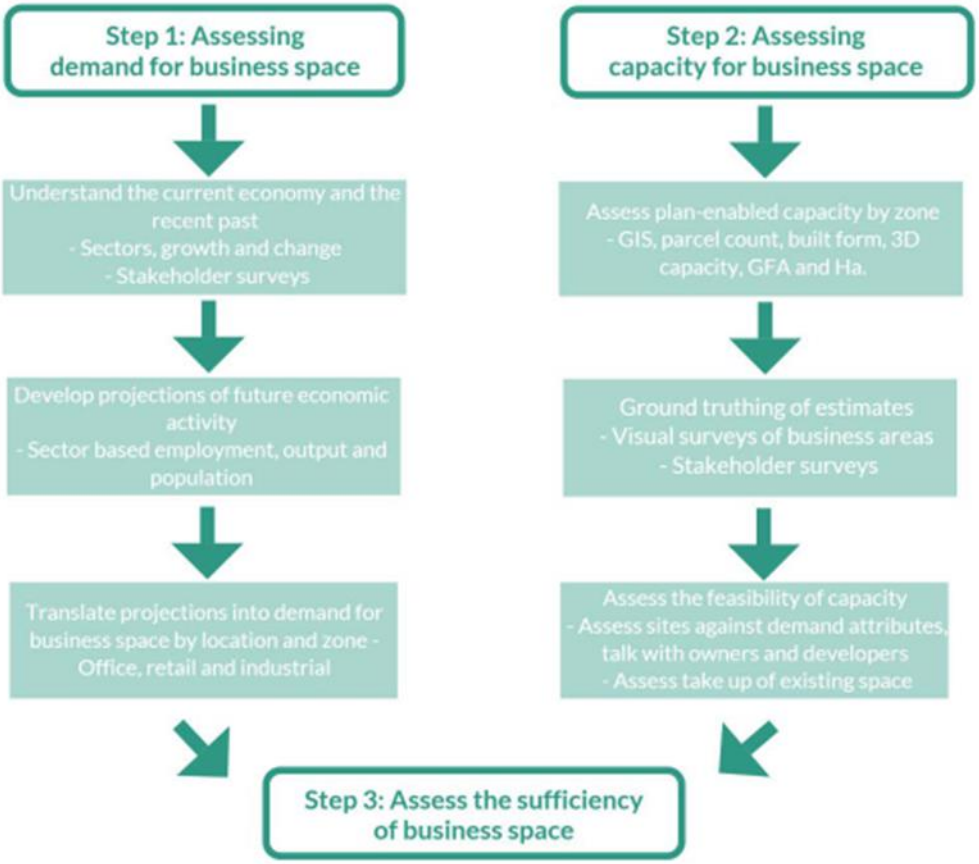
Background

The Future Proof Partnership (FPP) is made up from the councils of Waikato District, Hamilton City and Waipa District. Together these Councils have been identified as a high growth area. In accordance with the

National Policy Statement – Urban Development Capacity 2016 ('**NPS-UDC**' or simply '**NPS**'), FPP must complete an assessment of both Business Development and Residential Development Capacities at least every three years

This document fulfils those requirements for the Future Proof Partnership area and consenting authorities. The approach adopted splits the tasks into 3 broad steps; assessing demand, assessing capacity and assessing sufficiency of capacity to meet demand (as outlined in Figure 0.1).

Figure 0.1: Business Development Capacity Approach Summary



District Economy

The NPS states that the "*objectives apply to all decision-makers when making planning decisions that affect an urban environment*". What forms part of an urban environment is therefore important. 'Urban environment' is defined in the NPS as:

> *An area of land containing, or intending to contain, a concentrated settlement of 10,000 people or more and any associated business land, irrespective of local authority or statistical boundaries.*

A local authority must have part, or all, of either a medium or high-growth urban area (as defined under the NPS) within their district/region, before they are required to carry out these assessments. Once triggered as being a high or medium-growth area within a District, the application policies outlined in the NPS are not restricted to the boundaries of the urban area itself, and therefore can apply District-wide.

Together, the Future Proof Partners (FPP) are considered a 'high growth urban area' under the NPS-UDC. This means that the policies can apply District wide. The following assessment focuses on the entirety of Waikato District, Waipa District and Hamilton City.

Within each TA, the zoning structure (zones and sub zones) at the parcel level has been used to identify where capacity exists and the nature of activity that can locate on each parcel. In addition to the currently zoned land, information from structure plans that relate to greenfields development has been used to identify future capacity and the nature of activity that can locate on it.

There are significant differences between the three TA economies, that reflect the different roles each plays within the FPP. Hamilton has high relative concentrations of employment in the public sector – public administration and safety, health and education and the social assistance and other services sectors. In addition, high concentrations of retailing, manufacturing and utilities reflect its role as the regions prime city. The economies of both Waikato District and Waipa District are heavily reliant on the primary production sectors for employment (30% and 19% respectively). Hamilton City relies on the primary sector to feed its industrial and service sector base meaning it has an indirect employment relationship with the farming sectors. As the primary sector expands or contracts so too will Hamilton's industrial and service sector employment.

Waikato and Waipa are noticeably different from each other. A portion of this difference is driven by the location of minerals such as coal and aggregate and the relative location of the districts to Auckland. Waikato District has the highest concentration of construction sector employees as the spill-overs from Auckland begin driving growth in; Pokeno, Tuakau, Te Kauwhata and the large infrastructure projects such as the Southern Motorway extension towards Hamilton. Mining and Quarrying are also highly concentrated in Waikato.

Waipa District also has high reliance of the agricultural sectors for employment. The construction sector is also strongly represented. Waipa has higher than expected concentrations of retail activity, education and training and Arts and Recreational services. These last sectors are important as they capture the high-performance sports facilities and education facilities that Waipa District is beginning to see concentrated around Cambridge (Rowing at Karapiro and Cycling at the Velodrome in Cambridge).

Business Land and Floorspace Demand

In total, employment growth across the FPP area is expected to increase from a base of 130,600 in 2016 to 214,100 MECs by 2051 – an average of 1.8% annually over that period. Employment growth rate declines over time with stronger growth in the short term of 2.2% annually, dropping to 2.0% in the medium term to 1.8% annually in the long term.

The most employment growth occurs in the business/finance and governance sectors which adds 18,900 MECs in the long term. The fastest growing broad sector is the Transportation and storage sector which increases employment by 78% over the long term. This is the employment that the FPP councils need to be able to accommodate through planning provisions and the land they apply to.

Employed is translated into likely floorspace and land use requirements using average floorspace per worker and land area per worker ratios. These averages are derived from current data relating to employment and land use/space types. Given the similarity of activities carried out by employees across a

range of sectors, there are a smaller number of space types than there are activity types or economic sectors. For the purposes of the NPS-UDC, all space and land types have been condensed into 3 broad categories – Retail, Commercial and Industrial. Translating employment growth into total land demand results in the FPP partners needing to identify approximately 1,090ha of business zoned land over the long term.

Figure 0.2: FPP Total Business Land Demand by Broad Sector, 2017 – 2047 (ha).

Broad Sector	Hamilton City	Waikato District	Waipa District	Total FPP Area
Commercial	87	33	30	150
Retail	36	11	11	59
Industrial	524	209	147	881
Total Vacant Bus. Land	**647**	**254**	**188**	**1,090**

For the majority of retail and commercial sectors, floorspace is a more meaningful metric than land. In total to cater for anticipated economic growth over the next 30 years, the FPP area requires over 3.3 million sqm of gross floor area of build space (GFA) - 2.3million sqm of that for the industrial sectors 796,000sqm for commercial activities and 247,000sqm for retail.

Figure 0.3: FPP Total Business Floorspace Demand (GFA) by Broad Sector, 2017 – 2047 ('000 sqm)

Broad Sector	Hamilton City	Waikato District	Waipa District	Total FPP Area
Commercial	403	204	189	796
Retail	118	67	62	247
Industrial	767	866	648	2,280
Total Vacant Bus. Land	**1,288**	**1,137**	**899**	**3,323**

Business Land and Floorspace Capacity

Business Land and Floorspace capacity in each district has been identified by applying the provisions in the plan to vacant parcels identified in the rating database and other parcel level land files. This produces a measure of Plan Enabled capacity, that needs to be refined to account for the portion not feasible for development for whatever reason.

Out of necessity, provisions in the plan are broad, meaning that most parcels identified as vacant can meet a relatively wide range of needs. Therefore, capacity may not be exclusively sheeted back to one usage type or another. Parcel level capacity has then been aggregated to study zones (Wards or ME zones for HCC) by broad activity type (Commercial Retail and Industrial). The current planning provisions enable a large amount of business land capacity for growth. In total, over 2,560 ha of land has been identified through the plans. Most of this resides within Hamilton City (1,500ha) with 700ha in Waikato and 340ha in Waipa. This land is mostly Industrial and Commercial land (1,190ha and 1,070ha respectively), with 311ha of Retail land as well. Note that Hamilton industrial land captures the full area of Te Rapa north – only 14ha of 193.6ha is currently available, rising to 56ha in the medium term.

Figure 0.4: FPP Vacant Business Land by Broad Sector (ha)

Broad Sector	Hamilton City	Waikato District	Waipa District	Total FPP Area
Commercial	643	346	78	1,066
Retail	186	56	70	311
Industrial	697	299	193	1,190
Total Vacant Bus. Land	**1,526**	**700**	**341**	**2,567**

Plan enabled gross floor area (GFA) was then determined based on the relevant zoning rules – site coverage, building heights and floor area ratios were used to calculate GFA for each parcel. Activity status tables were then used to determine the activity types allowed. Permitted, restricted discretionary and discretionary status activities have been incorporated under the assumption that these are essentially allowed under the various District Plans.

Figure 0.5: FPP Vacant Business Floorspace Capacity (GFA), 2017 ('000sqm)

Broad Sector	Hamilton City	Waikato District	Waipa District	Total FPP Area
Commercial	16,874	4,415	1,101	22,390
Retail	944	592	552	2,088
Industrial	5,010	2,094	845	7,949
Total	**22,827**	**7,102**	**2,498**	**32,427**

In total the identified vacant business land support almost 32,500,000 sqm of built space. Again the majority of this is within Hamilton City (70%) with 7.1 million sqm in Waikato District and almost 2.5 million sqm in Waipa District. Because commercial space is able to occupy above ground floorspace (unlike retail or industrial) the majority of total space is commercial (69%).

It is important to be aware of issues and limitations associated with the capacity estimates. They include:

- Currency of data. This information is based on the rating database. Development since the last update may reduce these numbers. This has been partially overcome by ground truthing exercise with Council staff but will need ongoing monitoring to ensure currency.
- Housing capacity crossover: IN some of the zones housing demand competes with commercial demand for the same space – notably in mixed use zones. Again, monitoring of uptake by activity type, including housing is important to remain currency of dataset.
- Other Capacity Sources: There is currently an amount of unoccupied but built space within the FPP area. This will provide capacity to a portion of short term demand yet is outside the measure of capacity described above. In addition, redevelopment of currently underutilised or older built sites will provide additional capacity not captured above. This potential can be assessed by looking at the average level of intensity in a given centre of business area. Sites not at the current average, or within the upper half are likely to have redevelopment potential. The same holds true for industrial sites. Care needs to be taken, as often sites appear to be underutilised, yet

the space may play a vital role in an industrial process (such as truck parking/turning, product storage etc). It is important for Council to monitor development, redevelopment and usage patterns to build up a knowledge base over time of business area operation.

- Rural Capacity: The focus of this report is urban development capacity. The rural zones play an important role in the FPP area and are likely to provide additional capacity not discussed in this report.

Development Feasibility

The approach described above focuses on establishing plan-enabled capacity. However, identified capacity may not translate to actual business properties available to the market unless it is "feasible" to develop. Feasible means commercially viable for a developer to develop given current costs, revenues and yield. However, for business land the situation is complex. The type and nature of business development is far more varied than residential – retail and commercial clients have a wide range of development types that might be suitable for a single piece of land. Ownership models differ widely as will appetite for debt and risk profiles. A developer willing to occupy a site for a lifetime may be able to amortise costs across a very long timeframe, so is motivated differently from a developer looking to build more generic tilt slab industrial units for rapid sale.

Because of these complexities a residual land value type model is not appropriate for business land assessments. Multi-Criteria Analysis provides a way for Councils to frame the development opportunities within their district by scoring them against a set of agreed criteria. Each criteria plays a large or small role in the development and locational decision, so is given a large or small share of the total area score.

Each broad area is then scored against the criteria and the ratings added up to provide an overall score out of 100. Comparisons can then be made between where the plan enabled capacity resides and the MCA score for those areas. If capacity is provided in the areas that score highly in the MCA, Council can be confident that development will proceed.

The MCA analysis showed that there is a close alignment between where the FPP have provided capacity and high scores under the MCA framework. This indicates that the FPP can be confident that zoning is appropriate is terms of location and the nature of the land zoned. There are limited areas where development will be constrained in terms of market acceptance of product.

MCA Scores have been aligned against capacity in the final assessment in the body of the report.

Sufficiency of Plans

Demand is aligned against supply by broad type at the local level (ward or ME zone) to determine overall sufficiency of FPP business provisions. Detail at the local level is contained in the body of the report, but at the overall TA level for the FPP, it is clear that both the amount of land provided and the built space that enables far exceeds the total amount of demand – even with an added margin (20% in the short to medium term and 15% in the long term). Note that the Green Bands in the Sufficiency Measure Columns indicate sufficient capacity to meet demand.

In nearly all cases the amount of expected demand for commercial or retail land is less than 20% of capacity over the long term (other than in Waipa for commercial land). Industrial land demand is expected to take

up between 70% and 75% of the total provided over the long term (30 years), but only 25% - 45% in the medium term.

Figure 0.6: Future Proof Partners Business Land Sufficiency summary (ha)

	Demand Growth (Ha)			TOTAL LAND (ha)	Sufficiency Measure		
Sector by TA	**Short Term**	**Medium Term**	**Long Term**		**Short Term**	**Medium Term**	**Long Term**
Commercial							
Hamilton City	15.0	69.1	86.7	642.7			
Waikato District	3.2	10.6	33.5	345.6			
Waipa District	5.7	13.9	29.9	77.9			
TOTAL FUTURE PROOF	23.9	93.7	150.1	1,066.2			
Retail							
Hamilton City	6.2	20.1	36.3	185.8			
Waikato District	0.8	3.2	11.4	55.7			
Waipa District	2.5	5.7	11.3	69.8			
TOTAL FUTURE PROOF	9.5	29.0	59.0	311.3			
Industrial							
Hamilton City	110.1	318.0	524.4	697.4			
Waikato District	22.8	77.1	209.4	299.2			
Waipa District	22.3	58.6	147.2	193.2			
TOTAL FUTURE PROOF	155.2	453.7	881.0	1,189.8			

Figure 0.7: Future Proof Partners Business Space Sufficiency Summary (GFA)

	Demand Growth (GFA sqm)			TOTAL Space (GFA sqm)	Sufficiency Measure		
Sector by TA	**Short Term**	**Medium Term**	**Long Term**		**Short Term**	**Medium Term**	**Long Term**
Commercial							
Hamilton City	53,689	164,829	402,548	16,873,743			
Waikato District	18,535	76,653	216,885	4,415,300			
Waipa District	15,698	56,508	189,126	1,100,800			
TOTAL FUTURE PROOF	87,922	297,990	808,558	22,389,843			
Retail							
Hamilton City	30,179	68,274	118,070	943,519			
Waikato District	4,562	21,742	69,983	592,400			
Waipa District	4,044	17,188	61,751	551,630			
TOTAL FUTURE PROOF	38,785	107,204	249,804	2,087,549			
Industrial							
Hamilton City	101,460	303,790	767,080	5,009,853			
Waikato District	95,008	386,435	932,958	2,094,000			
Waipa District	69,790	216,386	647,645	845,420			
TOTAL FUTURE PROOF	266,259	906,612	2,347,683	7,949,273			

Conclusions and Future Updates

Overall the various Future Proof Partners have, through their planning documents, structure plans and other strategic documents, made sound provision for growth in demand for business land and floorspace. The potential pressure likely to be felt in Waipa District at the Ward level with respect to sufficiency of business land capacity is not necessarily reflected in floorspace pressure. What this may result in is pressure brought to bear on existing business land areas to maximise their delivery of floorspace across the Cambridge and Te Awamutu areas. Redevelopment potential tends to occur when other options are either

not available, are poorly located or too expensive as redevelopment is relatively costly and carries a higher risk.

Key conclusion points include;

- Lack of obvious vacant business land capacity in Cambridge and Te Awamutu wards for retail and commercial activities.
- In general, the gap between Industrial land supply and industrial land demand is closer than for either retail or commercial. This means Councils should be particularly vigilant in terms of monitoring uptake and usage of industrial land. Industrial land is particularly sensitive to being used for other purposes. Due to its relatively low value, it is often targeted by large format retail operators who seek large footprint sites at relatively low cost. As they are destinations in and of themselves, they have the ability to drive trade their way. This changes the dynamics of cities and can lead to very significant adverse outcomes as trade is drawn away from traditional centres impacting on their ability to function and deliver amenity to the city.
- High level of cross over between retail and commercial in terms of land requirements means that they could potentially be viewed as a single entity. This may alleviate pressure felt at a local level if either one or the other is constrained.
- Reasonably strong alignment between results of the MCA framework and plan enabled capacity indicate Councils are zoning land that is appropriately located and is likely to meet developer requirements.
- Price is the key factor when establishing whether land will be developed or not. Land price encompasses a range of the variables identified within the MCA. Price is often the first hurdle to development, but not the only factor. While it is important to get the price right, price will not necessarily compensate for deficiencies in either location or other physical characteristics of a parcel of land.

The most important thing Councils can do to ensure they remain in touch with growth and change, is to constantly monitor business land development. By consistently updating datasets on development and occupancy, Councils will be well placed to address development and broader economic trends as they begin to emerge.

Monitoring should include – but not be limited to;

- Uptake of business land – quarterly or annually at the least
- Development typologies – what is being built on the land
- Occupation and use – who are the final occupiers of the land and what do they do/what sector do they belong to.
- Employment: How much employment is being achieved on the developed land.
- Market trends in locational choice and usage: What is coming down the pipeline, what are the developers and real estate agents saying about the near and far future.

1 Introduction

The Future Proof Partnership (FPP) is made up from the councils of Waikato District, Hamilton City and Waipa District. Together these Councils have been identified as a high growth area. In accordance with the National Policy Statement – Urban Development Capacity 2016[1] (NPS-UDC or NPS), FPP must complete an assessment of both Business Development and Residential Development Capacities at least every three years. This report, prepared by Market Economics Limited (M.E) in collaboration with FPP, delivers the first of those assessments.

The Future Proof Partners network has been identified as a "high growth urban area" under the NPS-UDC and is subject to a range of provisions due to this.

This assessment analysis of the FPP Business markets, including both the demand and supply sides, as well as the sufficiency of capacity provided by the Councils under their various District Plans.

This report, prepared by Market Economics Limited (M.E) delivers the first of the Future Proof Partners Business Development Capacity Assessments (BDCA). A separate residential capacity assessment – the Housing Development Capacity Assessment (HDCA) – has also undertaken and is detailed in a separate report. This BDCA focuses on the development capacity within the urban environments of each of the partnership councils, as required by the NPS-UDC.

1.1 Purpose of the NPS – UDC

In summary, the NPS-UDC requires local authorities to ensure there is sufficient housing and business land to meet expected demands. To do so, it establishes a comprehensive staged assessment process to ensure local authorities gain amore fine grained understanding of the economic influences on capacity and demand in order to better plan for growth.

The NPS identifies that urban environments are areas where population and economic activities are in close proximity and that they are often growing at significantly higher rates than in rural or provincial settings. This dynamism leads to unique and challenging conditions that require particular policy responses to manage the effects and to ensure that growth is managed in a manner that is both efficient and ensures that communities continue to be able to provide for their social cultural environmental and economic wellbeing.

In order to effectively manage growth, it is important to understand growth within the urban environment, both population and economic. Local authorities are able to make well informed decisions if they have access to consistent and robust estimates of economic growth. Understanding the key drivers of growth

[1] http://www.mfe.govt.nz/sites/default/files/media/Towns%20and%20cities/National_Policy_Statement_on_Urban_Development_Capacity_2016-final.pdf

and the land use implications of change will assist authorities when assessing the effects of alternative policy options. In the context of business land, it will also support thriving town centres, efficient transport and infrastructure planning, and enable change that fosters the sustainable growth of the district. This information will also provide greater understanding of industries that may change over time and enable the management of possible negative effects of business activities, such as reverse sensitivity or high vacancy rates.

A key outcome of the NPS-UDC is the integration of land use and infrastructure planning. This recognises that development is dependent on the availability of infrastructure, and decisions about infrastructure can shape the location and form of urban development. There are obvious benefits, particularly in terms of efficiencies, more predictable outcomes and cost savings to the wider community from ensuring consistency between all of these processes. Accordingly, the NPS-UDC requires (under Policy A1) that development capacity considered in these assessments is either serviced or identified in a Long Term Plan or Infrastructure Strategy.

1.2 Objectives and Policies

As high urban growth areas, the FPP areas are subject to the full suite of objectives and policies under the NPS-UDC. The objectives and policies are structured into four key themes, summarised below:

- *Outcomes for planning decisions* – these provisions establish the requirement to ensure sufficient housing and business capacity to meet demand, provide for choices, and urban environments that develop and change over time.
- *Evidence and monitoring to support planning decisions* - these provisions specify the reporting requirements, the need to monitor market indicators, and consider influences on capacity such as rate of take-up and feasibility.
- *Responsive planning* – requires a response to be initiated if the evidence base suggests there is insufficient development capacity, establishes the requirement for Councils to prepare a 'Future Development Strategy' and the setting of 'minimum targets' in regional and district plans.
- *Coordinated planning evidence and decision-making* – encourages collaboration between authorities that share jurisdiction over an urban area, and between regional and local councils.

1.3 The Business Development Capacity Assessment (BDCA)

The NPS specifies the overall requirement for the BDCA, together with a range of requirements in the Policies[2]. Each Policy assessment needs a sound analytical/technical base and good supporting information, and most need quantification to demonstrate compliance. There are many inter-linkages and inter-dependencies among the policies, which make it important to understand the NPS both holistically,

[2] Available for download from http://www.mfe.govt.nz/publications/towns-and-cities/national-policy-statement-urban-development-capacity-guide-evidence

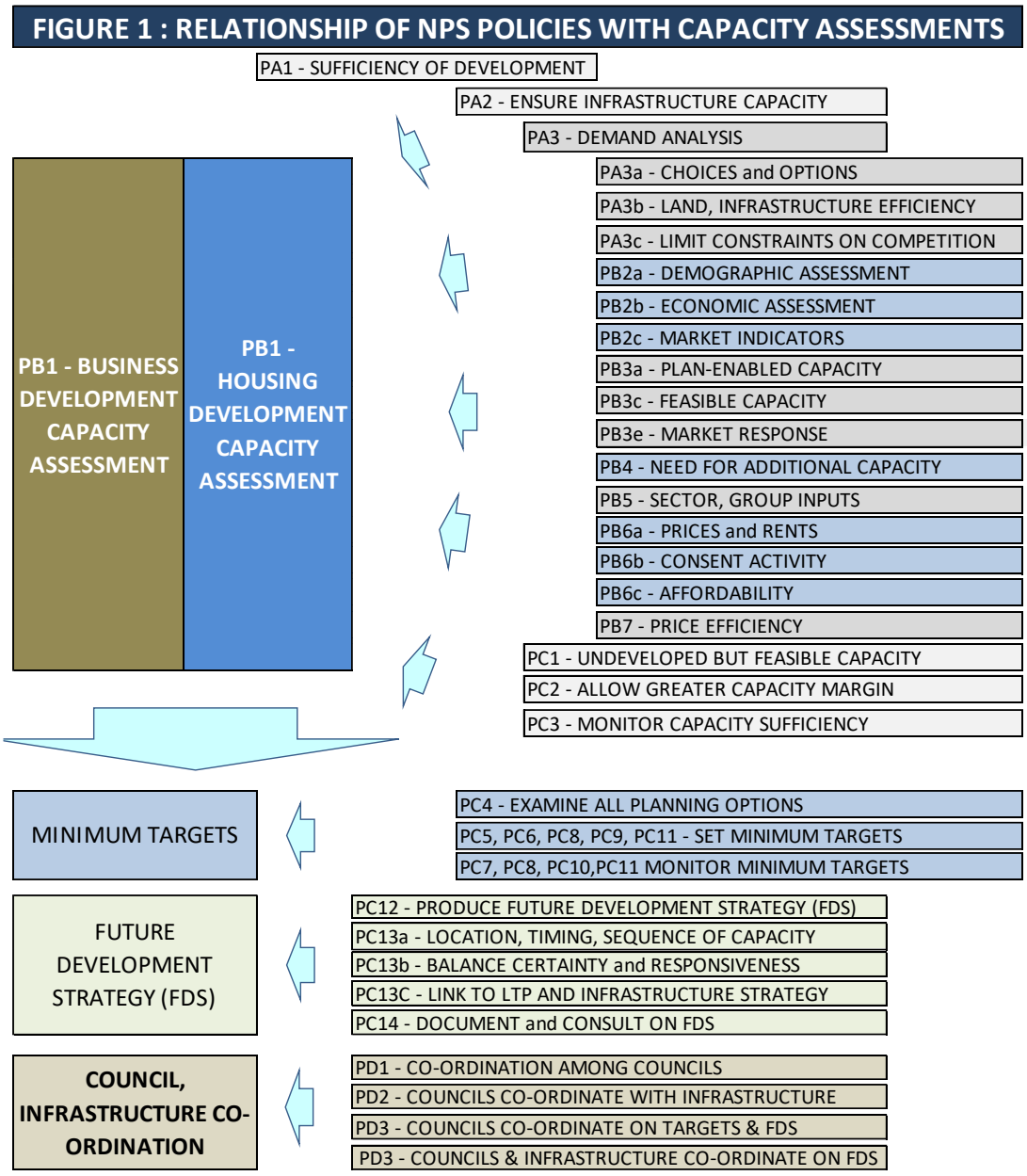
and as to the specific requirements for each Policy. The individual policies cannot be satisfied if treated in isolation.

Figure 1.1 sets out the overall policy structure of the NPC-UDS, and shows the relationship of each policy to the overall requirement to produce Business (and Housing) Development Capacity Assessments (PB1). A key feature of the flow chart is that while there are significant cross-flows between Policies (these are not shown in the figure to maintain some clarity), the main focus of all Policies from PA1 to PC3 is on the capacity assessments.

Subsequent to the completion of the BDCA (and HDCA), Policies PC4 to PC11 are oriented to setting and achieving Minimum Targets for growth and capacity. Policies PC12, PC13a-c, and PC14 are geared toward the third of the major reporting documents, the FDS. The remaining policies PD1 through PD4 are to ensure co-ordination among councils and between councils and infrastructure providers.

Within this wide suite of policies, the major part of the technical analysis and monitoring is set out in policies PA1 through PC3, which contribute most directly to the BDCA (and HDCA). These are addressed throughout this report.

Figure 1.1 – Relationship of NPS Policies with Capacity Assessments



The two assessments should help local authorities to quantify in broad terms how much development capacity should be provided in resource management plans and supported with development infrastructure, to enable the supply of business (and housing) space that meets demand. Policy PB3 requires that this assessment include how much capacity is "feasible" to develop in the current market and expected to be taken up over time. In addition, the calculation of total feasible capacity required needs to include margins over and above projected demand, to inform policies PC1 and PC2.4

The assessments should also include information about the interactions between housing and business activities, such as whether the location of activities provides for accessibility and the efficient use of land and infrastructure and how urban environments are developing and changing over time.

1.4 Approach Overview

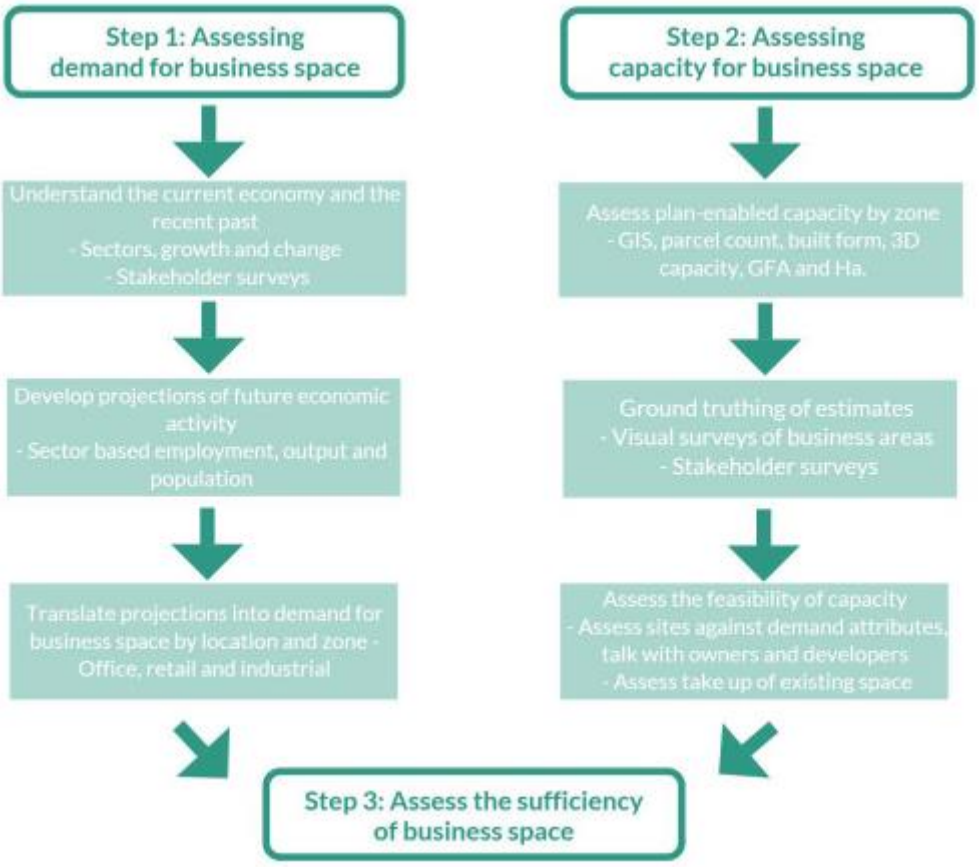
This report focuses on economic growth and how it translates into land and space requirements within the FPP urban environment. Economic growth is a key driver of development markets and is important to understand in terms of absolute scale, composition and timing. With this information, FP partners can make more informed decisions that:

- provide sufficient capacity and choices for all business uses, in appropriate locations, and an efficient allocation of capacity between them;
- support thriving town centres, efficient transport, and management of the negative effects of business activities and reverse sensitivity;
- enable constant spatial change to support economic growth and change, particularly, a greater understanding of how the role and function of the district's centres may change over time;
- understand the influences of business growth on associated demands and locations for visitor accommodation, housing and social and development infrastructure.

These outcomes would contribute to effective and efficient urban environments that enable people and communities and future generations to provide for their social, economic, cultural and environmental well-being. This information also supports informed investment and funding decisions.

The BDCA has three main stages or components of analysis for both demand and supply. The broad approach is presented in Figure 1.2. The following sections contain a narrative that addresses each stage in detail.

Figure 1.2 – Business Development Capacity Approach Overview



1.5 Data Sources

The BDCA modelling draws on existing datasets as supplied to M.E by the FPP councils. Key database sets include:

- Rating databases – containing information relating to existing land uses, development patterns (e.g. floorspace), and value (CV, IV, LV)
- Published District Plans – contain information relating to activity status of development types and development rules (site coverages, heights, floor-area ratios, etc).

Several spatial datasets were also incorporated into the modelling, including:

- LINZ Primary Parcels[3] – capacities were modelled at the LINZ Primary Parcel level
- District Plan Zoning – provided by each council, including overlays, subzones, and hazards

[3] https://data.linz.govt.nz/layer/50772-nz-primary-parcels/

- Building Footprints – derived from aerial photography, used to help cross-check Rating Database information
- Greenfield Structure Plans – spatial layers detailing the land earmarked for future development, including any information on development type and capacity.

The BDCA modelling also incorporates several other datasets, including:

- WISE Model Outputs – detailing population and employment projects at the local level
- Economic Futures Model (EFM) – predicts economic growth feedbacks based on regional inputs and outputs
- Business Directory – determines the number of employees and businesses within a geographic area based on census information.

Some further data was provided to M.E from within each individual FPP council. This related to the ground-truthing of available capacity.

1.6 Stakeholder Engagement

The NPS-UDC requires local authorities to seek and use the input of particular local groups with relevant expertise. This helps ensure that local development perspectives inform assessment of feasibility and that local market conditions are fully represented in the analysis. In particular, local engagement has been used to assist in identifying characteristics of land and location that make development feasible across the range of development sectors. Local engagement has also been used to quantify the relative importance of land and locational characteristics in the development of a Multi Criteria Analysis (MCA) framework used to assist in ranking development opportunities.

The stakeholder engagement process was undertaken in the form of a workshop where those attending participated in a discussion of the relevant issues and requirements relating to business developments. The discussion was led by M.E, with support from council staff within the FPP. The Workshop was held on January 19th 2018, with results collated and incorporated into the MCA.

Representatives of the development community, commercial land real estate agents, and large commercial development operators were included in the workshop, along with key Council staff engaged in the development process.

1.7 Terminology and Definitions

There are some key terms used in this report that are defined here:

- **Base year**: the base year of this assessment is 2016. This ensures alignment with Statistics New Zealand's projection series. However, the first year captured in the demand projections is 2018. This ensures that the Short Term (defined below) covers the next 3 years of growth.

- **Business Land**: land that is zoned for business uses in urban environments, including but not limited to land in the following examples of zones:
    - Industrial.
    - Commercial.
    - Retail.
    - Business and business parks.
    - Centres (to the extent that this zone allows business uses).
    - Mixed use (to the extent that this zone allows business uses).

  It is important to note that the above zone codes are not exclusive. A piece of land is likely to be zoned for a wide range of activities. The Resource Management Act is essentially an enabling Act, this means that TAs ensure that they cater for a wide range of activities being enabled in business zones. Compatibility of activities is key as is ensuring that any adverse impacts or emissions are able to be dealt with in a manner that does not harm surrounding land uses.

- **Business Demand**: The demand businesses place on the land or commercial property market for space. This is initially defined in terms of additional employment or turnover, translated into GFA and ultimately appropriately zoned land.
- **Economic growth**: Employment or GDP growth over time.
- **Short-term**: up to three years (measured from the base year).
- **Medium-term**: 3-10 years (measured from the base year).
- **Long-term**: 10-30 years (measured from the base year).
- **Feasible**: Development that is commercially viable to a developer, taking into account the current likely costs, revenues and yield of developing. Feasibility has a corresponding meaning. Note that feasibility assumes that the land is enabled for development by the plan and supported by public infrastructure.
- **Industrial Land**: Land that has been zoned for industrial activities under the relevant District Plan (in this case the proposed District Plan). The zones in this group are likely to be Heavy Industry and Light Industry. This land generally enables industrial type activities (manufacturing, wholesale, logistics and distribution, trade suppliers etc.), usually at the expense of significant office or retail activity.
- **Heavy Industry**: Defined according to its emissions. Whether it is noise, or discharges to air or water, the industry is likely to require buffering from residential activities.
- **Light Industry**: Generally the balance of manufacturing activity that does not generate noxious discharges or noise pollution. Needs for buffering is less or non-existent. Light Industrial activities can be used to buffer heavy industry.

- **Industrial space**: This is limited to the ground floor in nearly all cases. Height limits in industrial zones do not necessarily add floorspace capacity the way they do in commercial zones.
- **Commercial land**: Land that is zoned for commercial activities – usually office or retail activity. Manufacturing activities are generally not enabled on commercial land.
- **Commercial Space**: The build floorspace on land zoned commercial. This space is calculated by multiplying site size by the Floor Area Ratio (FAR) or building coverage by the number of floors allowed under the height limits. Not all zones have FAR's or height limits, so a flexible approach is adopted. Ground floor commercial space in centres generally represents retail capacity, while above ground floor space generally represents office employment capacity or visitor accommodation.
- **Retail Space**: Usually ground floor commercial space dedicated to selling goods and services to consumers. May also occur above the ground floor.
- **Office Space**: Usually above ground Commercial floorspace used for office activities.

Other terms used throughout this report draw on commonly used zoning terminology. Appendix 2 contains a list of acronyms used.

1.8 Report Outline

This report is structured as follows:

Section 2 describes the study area and urban environment of the Future Proof Partners. This section details the approach and spatial framework used.

Section 3 describes the district economy, including current economic indicators and key sectors. It also describes recent changes within the local economy, and drivers of economic growth.

Section 4 describes future business land and floorspace demand by sector. It describes how employment types are aggregated to different floorspace types, thereby defining the demand projections.

Section 5 describes the plan enabled business land and floorspace capacity by sector within each of the councils.

Section 6 contains the development feasibility for each of the sector types, based on a Multi Criteria Analysis.

Section 7 brings the results from sections 4 and 5 to discuss the sufficiency of capacity for the different sectors within the Future Proof Partners network. This section also covers the MCA work and makes recommendations for Council monitoring key areas.

Section 8 contains an overview of the work carried out, identifies some key issues throughout the process and some key learnings.

2 Study Area - Urban Environment

The NPS-UDC describes the urban environment as being characterised by the closeness of people and places, and the connections between them. They are places of high economic and population growth and while they share common elements, each has unique characteristics generating identity and advantage. Urban environments are places of rapid change, managing change and growth is therefore important for council seeking to ensure the urban environments continue to provide for people and communities wellbeing.

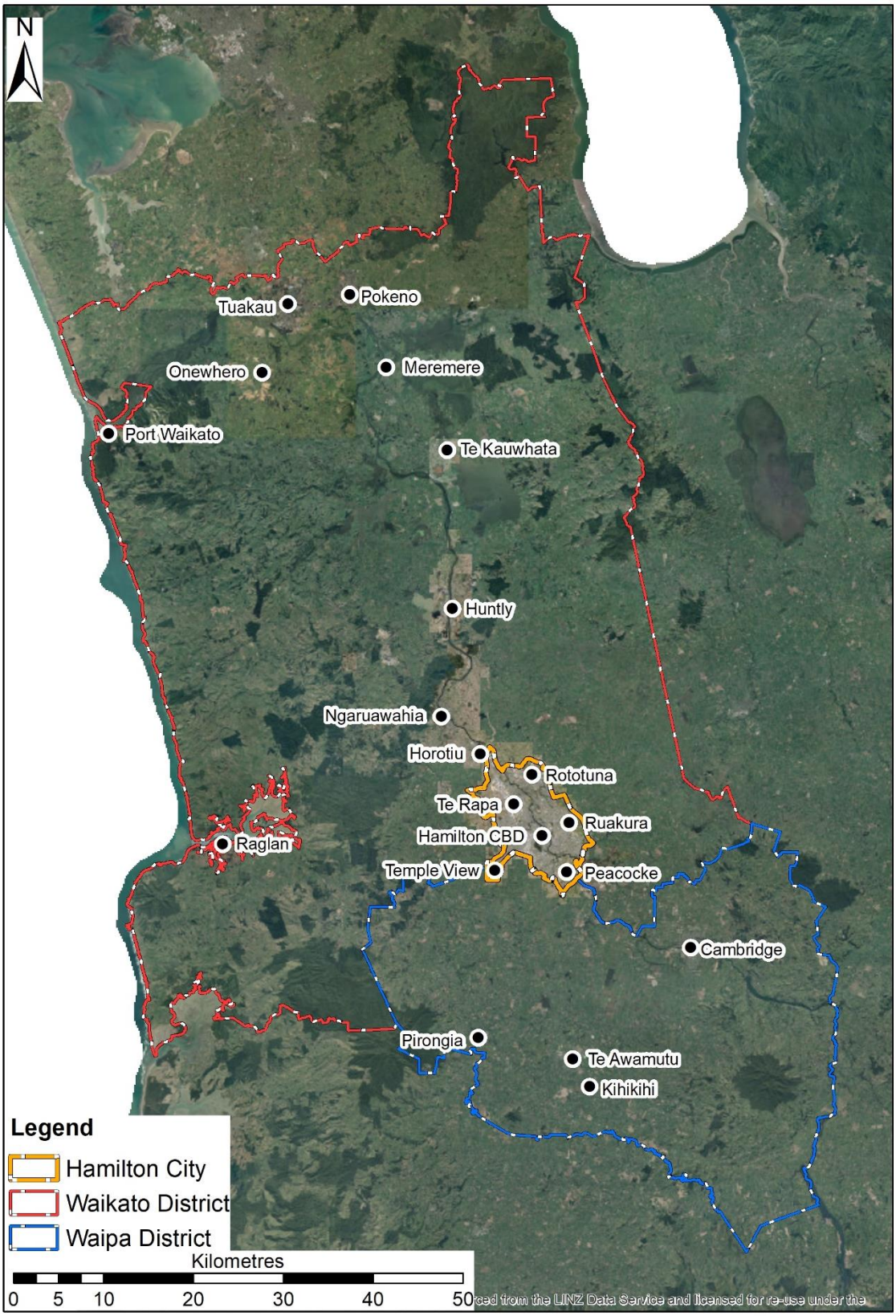
2.1 Geographic Context

The FPP network contains a land area totalling 6,034 km^2, of which Waikato District makes up 4,453 km^2 (73.8%), Waipa District makes up 1,470 km^2 (24.4%), and Hamilton City makes up 111 km^2 (1.8%). The combined area is located within a geographically significant sector of the North Island, sitting astride a large portion of the 'Golden Triangle' (Hamilton-Tauranga-Auckland).

Within the Future Proof Partnership there is one distinct city (Hamilton) along with 4 significant urbanised townships (Te Awamutu and Cambridge in Waipa and Tuakau and Ngaruawahia in Waikato District), and a number of smaller towns (Huntly, Raglan, Pokeno, and Te Kauwhata), captured in Figure 2.1. Towns and townships are primarily located along State Highways, interspersed by tracts of rural land. These rural areas represent some of the most exceptional agricultural land in the country.

The FPP's proximity to Auckland means that areas such as northern Waikato are experiencing significant pressure to develop and expand urban amenities as housing supply and affordability issues in Auckland drive growth out to the neighbouring districts. This exacerbates internal population growth and puts further pressure on the current infrastructure.

Figure 2.1 - Future Proof Partners Study Area



2.2 Urban Environments and the NPS-UDC

2.2.1 Context

Defining the urban extent is both relatively simple and complex in Hamilton. For the most part the extent of the Hamilton City boundary has been used to define the extent of the Urban Area. While the NPS defines the Urban Environment as;

> *an area of land containing, or intended to contain, a concentrated settlement of 10,000 people or more and any associated business land, irrespective of local authority or statistical boundaries.*

The NPS states (on page 10) that the "*following objectives apply to all decision-makers when making planning decisions that affect an urban environment*". What forms part of an urban environment is therefore important, as the objectives of the NPS, and Policies PA1 to PA4 in relation to an urban environment that is expected to experience growth, only apply to those areas that meet the NPS definition of urban environment. 'Urban environment' is defined in the NPS as:

> *An area of land containing, or intending to contain, a concentrated settlement of 10,000 people or more and any associated business land, irrespective of local authority or statistical boundaries.*

A local authority must have part, or all, of either a medium or high-growth urban area (as defined under the NPS) within their district/region, before Policies PB1 to PB7 (*evidence and monitoring*), PC1 to PC4 (*responsive planning*), and PD1 to PD4 (*Coordinated planning evidence and decision-making*) apply; and a high-growth area in their district/region before Policies PC5 to PC14 (*minimum targets and future development strategy*) apply.

Once triggered as being a high or medium-growth area within a District, the application of these policies is not restricted to the boundaries of the urban area itself, and therefore can apply District-wide. This reflects for example, the scenario in which new greenfield land may be identified as a future growth area in order to provide additional development capacity outside the boundaries of the "urban environment".

Together, the Future Proof Partners (**FPP**) are considered a 'high growth urban area' under the NPS-UDC. This means that the policies can apply District wide. The following assessment focuses on the entirety of Waikato District, Waipa District and Hamilton City.

2.3 Spatial Framework - Land Use Zones

Modelling of business demand and capacity within the FPP area occurs at the Area Unit level, with demand growth based on outputs from the WISE[4] model and M.E's EFM. This allows a relatively granular view across the Partners, which can be aggregated to a range of geographic scales, enabling the results to be output at to the level of key urban geographies and/or wards. It is important not to assess levels of sufficiency at the CAU level, as demand is mobile and the relatively short distances within Hamilton City[5]

[4] Waikato Integrated Scenario Explorer.

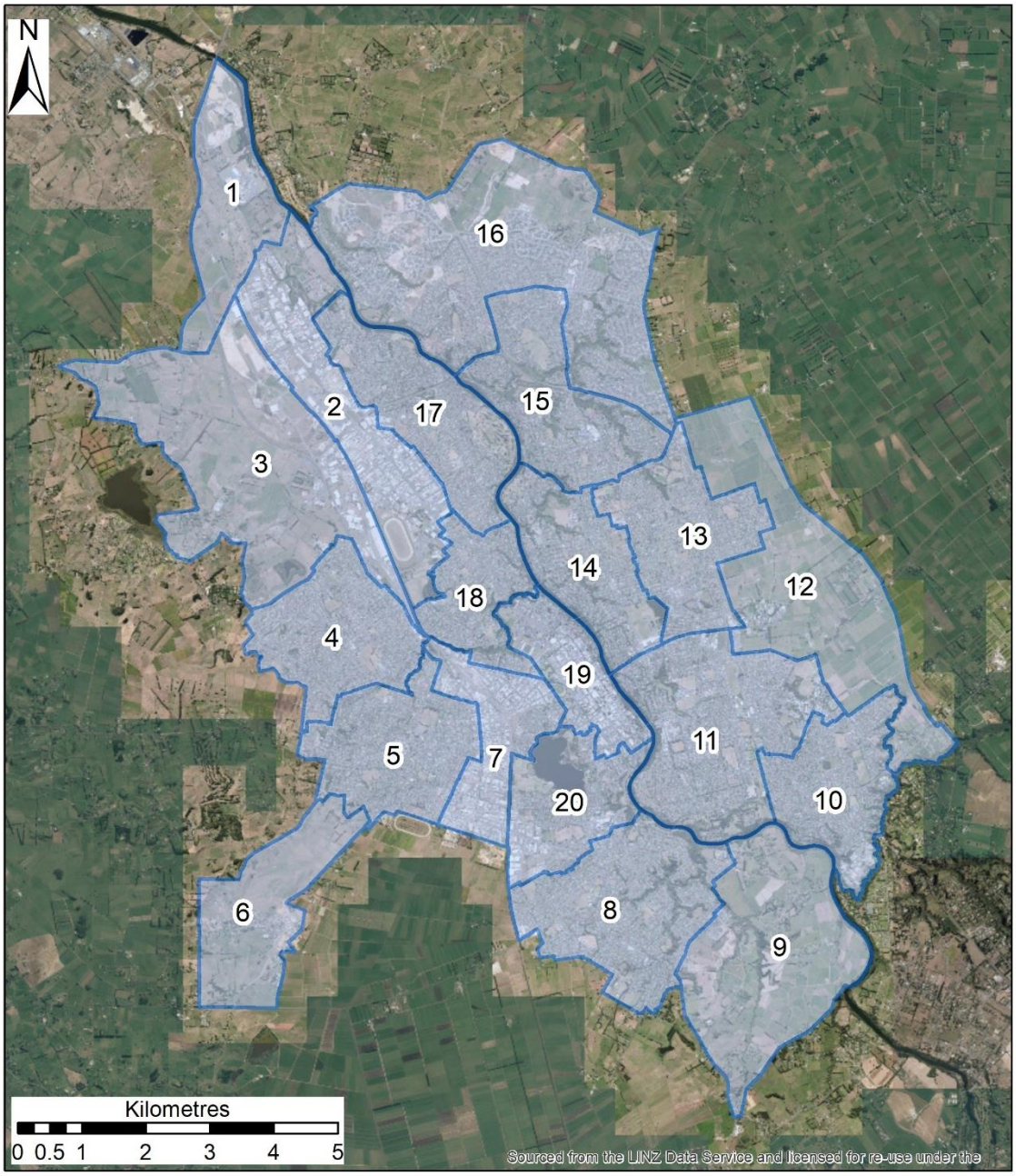
[5] 5km in a straight line from the CBD is rural land to the west and east, while the north south distances are only 7km

for example, mean that economic activity can be aggregated in an efficient manner while still meeting the wider needs of the community. It is still important to ensure that local needs are met locally – especially with respect to a portion of retail and services.

Within the Hamilton City portion of the FPP BDCA, a specialised set of catchments has been created based upon existing development types and any known future developments. The Hamilton City spatial framework is displayed in Figure 2.2.

For both Waikato and Waipa Districts, all modelled outputs have been aggregated to the ward level, as the wards effectively capture the range of urban towns and townships in both districts. These can be seen in Figure 2.3 and Figure 2.4 for Waikato District and Waipa District respectively.

Figure 2.2 – Hamilton City Spatial Framework



1 - Te Rapa North
2 - Te Rapa
3 - Rotokauri
4 - Nawton
5 - Dinsdale
6 - Temple View
7 - Frankton
8 - Glenview
9 - Peacocke
10 - Hillcrest
11 - Hamilton East
12 - Ruakura
13 - Chedworth-Fairview Downs
14 - Claudelands
15 - Chartwell
16 - Rototuna
17 - Saint Andrews
18 - Forest Lake
19 - CBD
20 - Hamilton Lake

Figure 2.3 - Waikato District Spatial Framework

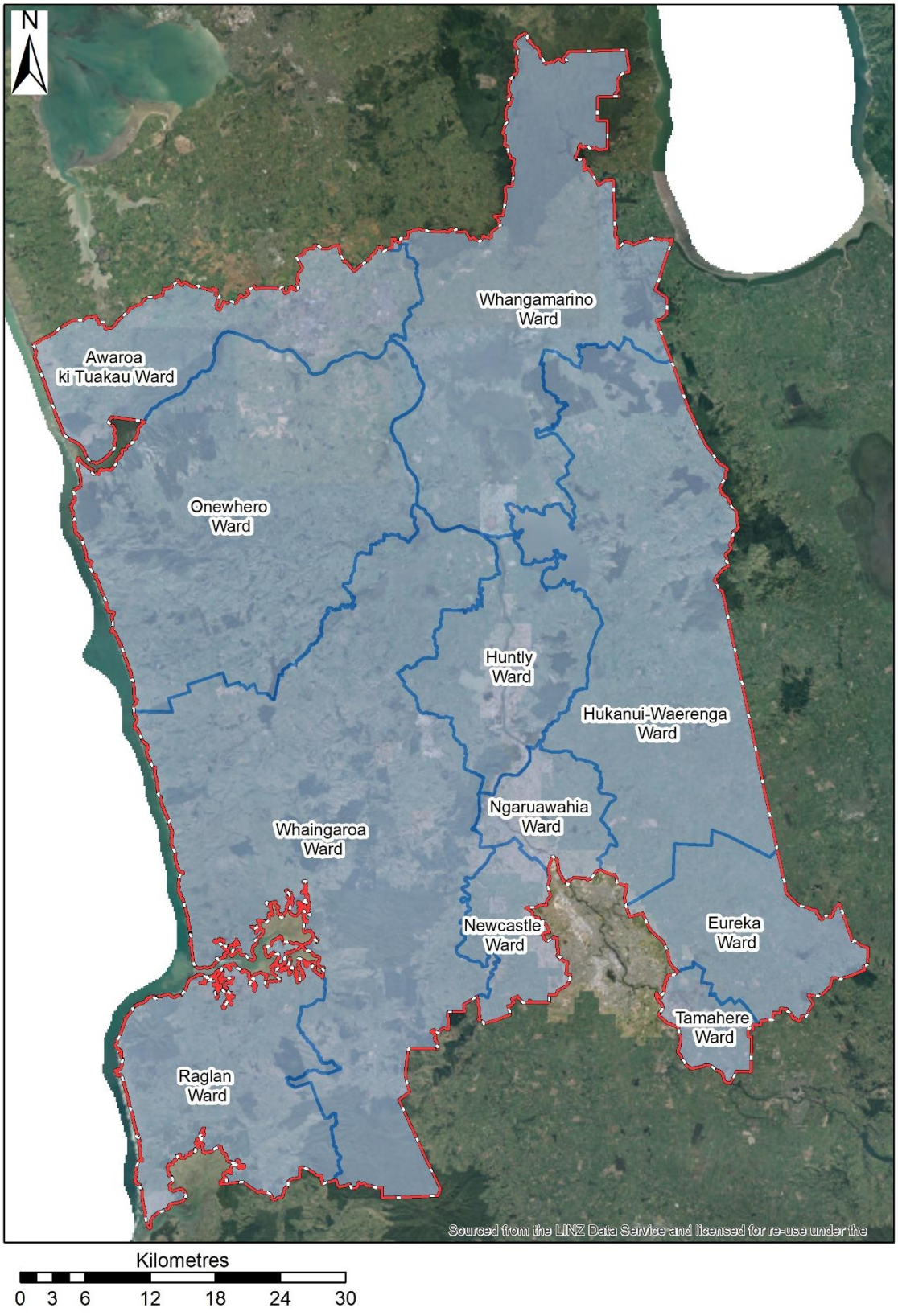
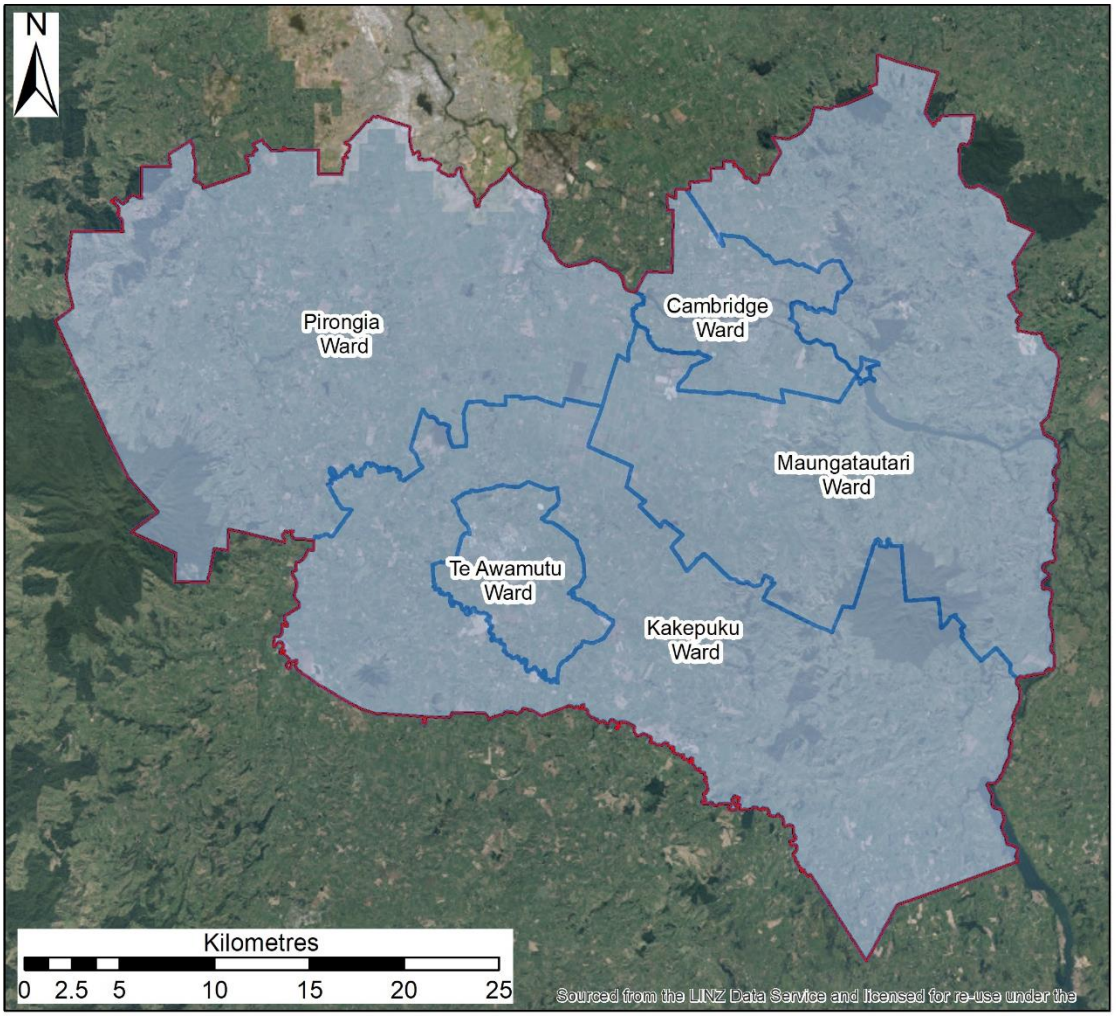


Figure 2.4 - Waipa District Spatial Framework

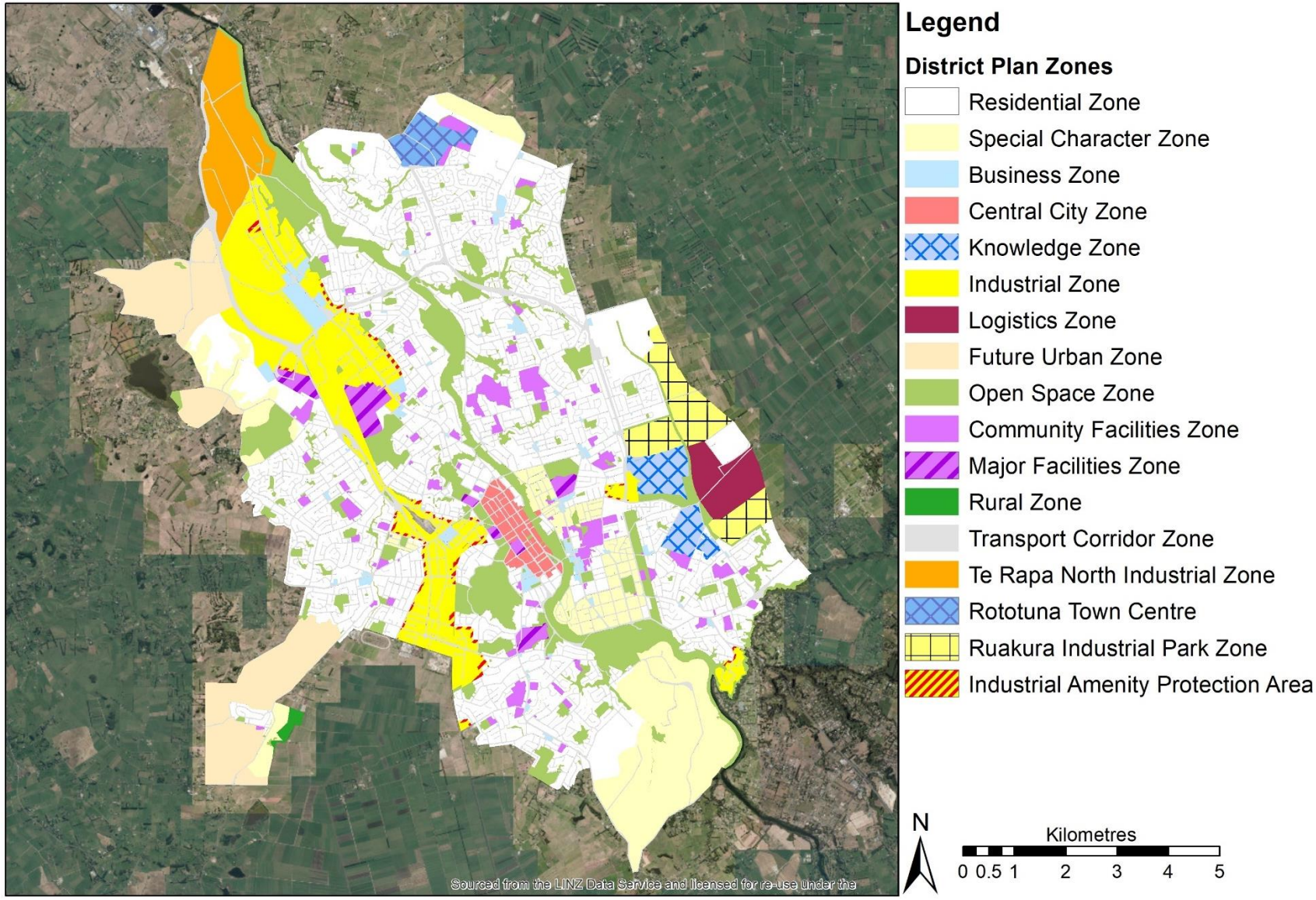


The District Plan zones were key in determining the urban areas assessed by the BDCA, largely due to the fact that they effectively distinguish urban developments and land uses compared to rural land uses. The zones included in the BDCA were selected based on the activities allowed, and the objectives for the zones. Anywhere that urban development was recognised as a priority was included in the analysis. Although it is recognised that there may be some capacity within the rural environment within each of the FPP councils, these were not modelled except where a structure plan existed.

2.3.1 Hamilton City

Hamilton City contains a wide range of zones, due to the complex range of residential, business, environmental and rural land types that exist within the city boundary. Figure 2.5 displays the main District Plan zones as they occur across the city. The zones within the city are further defined by the inclusion of sub-zoning information, which reflect differing rules and requirements reflecting the desired objectives and development patterns put forth by Hamilton City Council.

Figure 2.5 – Land Use Zones in Hamilton



The key zones assessed within the Hamilton City FPP BDCA are the;

- Business Zone,
- Central City Zone,
- Industrial Amenity Protection Area,
- Industrial Zone,
- Knowledge Zone,
- Logistics Zone,
- Ruakura Industrial Park Zone, and the
- Te Rapa North Industrial Zone.

Each of these zones has been further informed by subzones within the District Plan. The BDCA also incorporates related greenfield structure plans and associated information relating to these.

The Business Zone is a key zone within the BDCA assessment for Hamilton City. This zone is located in key clusters throughout the city, reflecting the location of key commercial and retail centres. The Business Zone is split by seven subzones, reflecting the varied nature of business activities across the city. The subzones include Commercial Fringe, Events Facilities Fringe, Sub-Regional Centre, Large Format Retail, Suburban Centre Core, Neighbourhood Centre, and Suburban Centre Core. As the names of these imply, each of these subzones have distinct development characteristics and permitted activities which have been distinguished within the BDCA. The intensity and type of development is variable throughout the subzones, with all space types – including industrial uses – represented within the Business Zone.

The City Centre Zone complements the Business Zone within the BDCA for Hamilton City. This zone is confined to the main city centre, and is split by the Downtown, City Living and the Ferrybank Precincts which act as subzones. The City Centre Zone largely supports commercial and retail activities, though there is some competition for residential accommodation in the form of apartment complexes. Development patterns within the City Centre Zone are intensive compared to other zones within the city, as might be expected of the key commercial hub within the urban area.

The Industrial Amenity Protection Area (IAPA) is a relatively small zone, existing on the edges of the Industrial Zone within the city. This zone is primarily used as a buffer to stop encroachment and reverse sensitivity of the residential zones surround the Industrial Zone at key points. Although some development is allowed in the IAPA, it is restricted. Overall this zone is not key within the BDCA, though it is assessed for completeness.

As the name implies, the Industrial Zone is the key zone within Hamilton City for enabling industrial type development and activities. The Industrial Zone is primarily represented in large clusters around Te Rapa and Frankton, with smaller pockets in Riverton and eastern Claudelands/western Ruakura. Developments within the Industrial Zone are generally warehouse, factory, or yard based with large lot sizes (and large buildings in the case of warehouses and factories). The Te Rapa cluster is comprised mainly of large lot activities, and relatively low intensity development. The Frankton cluster is more intensive, with smaller

buildings grouped together on smaller sites, though there are some large yard-based developments to the south. The Industrial Zone defines key clusters of existing industrial business activity within the city, with little room for extra development.

The Knowledge Zone is a confined zone within Hamilton City, home to the main tertiary education and research facilities within the city. The zone is comprised of three subzones: The University of Waikato Campus, Ag Research, and Waikato Innovation Park subzones. All enable the same activities and are more reflective of the organisations occupying the area rather than different development patterns. This zone primarily enables commercial uses relevant to research and academia, especially offices and educational facilities, as well as some storage facilities where required. Vacant areas in these subzones are primarily reserved for similar activities, though capacity is still available.

The Logistics Zone is one large cluster confined to Ruakura. Currently, the zone is undeveloped rural land, earmarked for future industrial development. The zone rules allow for warehouse- and yard-based activities, meaning that the Logistics Zone provides potentially significant amounts of industrial capacity. Although not currently developed, it is key to assessing future urban capacity within Hamilton City and so is included in the BDCA.

The Ruakura Industrial Park Zone (RIPZ) is key to providing capacity for the inland port that has been consented in Ruakura. Much of the area is currently rural farmland and undeveloped, which means that there is likely to be significant capacity identified here within the BDCA. The zone is likely to host mainly industrial land uses such as yard- and warehouse-based activities. The RIPZ will likely work in conjunction with the Logistics Zone described above. Although not currently developed, it is key to assessing future urban capacity within Hamilton City and so is included in the BDCA.

The Te Rapa North Industrial Zone (TRNIZ) is the final of the primary zones assessed within the BDCA in Hamilton. The TRNIZ is located to north of the existing industrial developments in Te Rapa and is largely undeveloped. The zone is split into Deferred Industrial, Heavy Industrial, and no subzones. Likely development patterns into the future are similar to those existing in the Industrial Zones, with extra emphasis on large-scale, heavy industry (factories, processing plants, etc) land uses. As with the Logistics Zone and the RIPZ, the TRNIZ is likely to provide significant capacity to industrial space types. Although not currently developed, it is key to assessing future urban capacity within Hamilton City and so is included in the BDCA.

Adding to the complexity of these zones, greenfield structure plan information was provided to M.E to enable detailed analysis of the greenfield areas within Hamilton. In the BDCA, this is especially relevant to the Logistics Zone and the Ruakura Industrial Park Zone, as well as portions of the Industrial Zone to the west of the existing developments at Te Rapa. Where this data was provided, M.E used it in place of the zoning information because of the more accurate information that was available (especially relating to spatial extents).

Together, the above zoning and the greenfield structure plan data was used to delineate the urban study area used in the Hamilton City section of the BDCA.

2.3.2 Waikato District

The Waikato District contains a wide range of zones, due to the complex range of residential, business, environmental and rural land types that exist across the district. Adding to this complexity, the district plan contains two separate planning sections that interact with the planning zones to alter the rules and activities in some cases. The BDCA takes account of these rules to assess capacity across each of the locations.[6] Figure 2.6 shows the existing zones as determined by the Waikato Operative District Plan.

The key zones assessed within the Waikato District section of the BDCA are:

- Business,
- Heavy Industrial,
- Industrial,
- Industrial 2,
- Industrial Park,
- Light Industrial, and the
- Village Business zone.

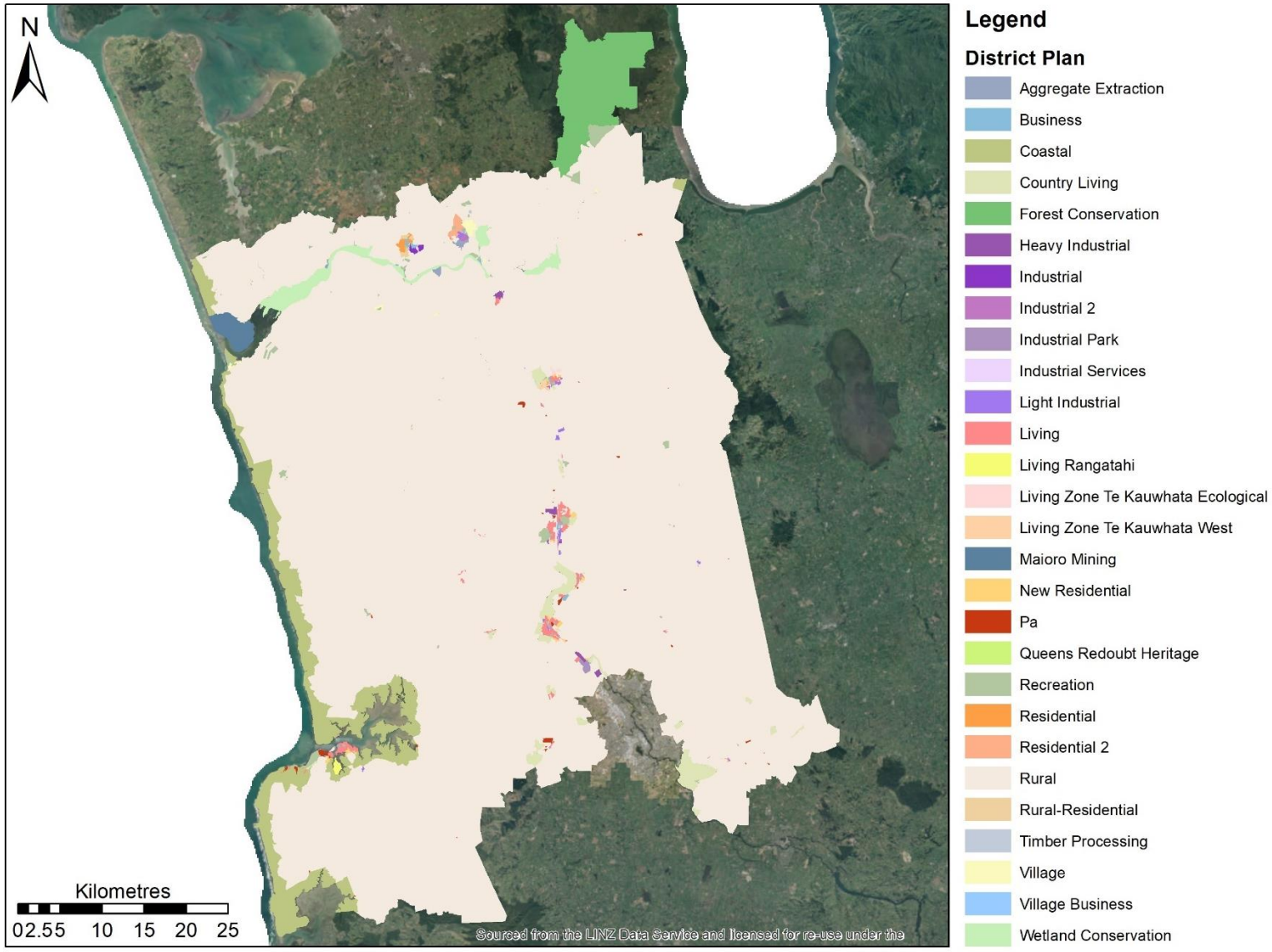
As with Hamilton City, some greenfield structure plan information was supplied to M.E to augment the zoning information and thereby define the urban study area used in the BDCA.

The Business Zone in the Waikato District defines the key commercial and retail activity centres within the District Plan. This zone is found in all major towns through the district, including larger centres such as Pokeno, Tuakau, Te Kauwhata, Ngaruawahia, Huntly, Horotiu and Raglan. There are some small clusters of Business Zones within minor townships as well, reflecting spot zoning where commercial or retail activities have been developed. Generally, the Business Zones are located in the centre of each urban cluster with residential and other business zoning surrounding these, consistent with historic urban development patterns. In some cases there are business zones located outside the main centre where businesses have established. All these scenarios are taken into account within the BDCA.

The Heavy Industrial Zone is located solely within the Waikato Section of the Waikato District Plan zoning areas. This zone is located primarily on the outskirts of the Meremere, Huntly and Horotiu, where they are occupied (or have previously been occupied) by heavy industrial activities such as processing plants and power stations. The clusters within this zone are included in the BDCA due to their potential for capacity for industrial uses, especially at the decommissioned Meremere Power Station.

[6] Further information regarding this will be supplied in the following HDCA Technical Report.

Figure 2.6 – Land Use Zones in Waikato



The Industrial and Industrial 2 Zones are located adjacent to Pokeno and Tuakau. Both zones primarily allow for industrial land uses such as warehouse, yard, and factory-based activities. The zones are mostly undeveloped, though the Industrial 2 zone in Pokeno is currently under development. These zones are likely to provide locally significant industrial capacity to the Franklin portion of the Waikato District, and have been incorporated into the BDCA due to this.

The Industrial Park Zone (IPZ) is located solely within Horotiu and is currently under development. The Industrial Park Zone has been established to work in combination with the Ports of Auckland inland hub that is also in the process of being developed. The activities located within the IPZ are centred around manufacturing and warehousing, meaning it enables some industrial activity and capacity. It is included in the BDCA due to the role it plays in providing industrial capacity for the southern Waikato.

The final zone included in the Waikato District potion of the BDCA is the Village Business Zone. This zone is reflective of small local businesses located in small townships such as Otaua, Mercer, Mangatangi and Naike. The capacity in this zone is likely to be limited due to the small-scale nature of the zoning but is included in the BDCA for completeness.

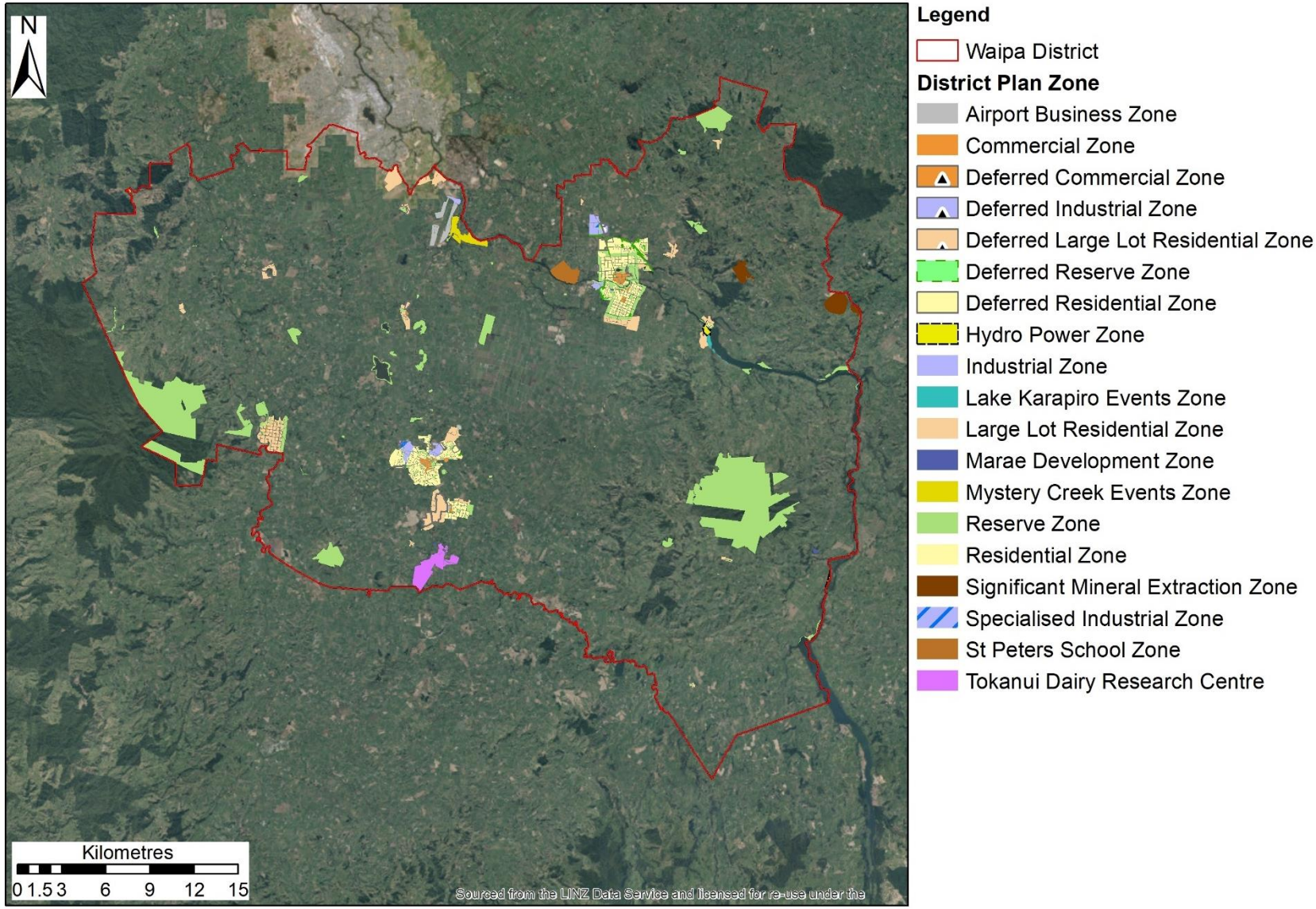
As with the Hamilton City BDCA, the Waikato District BDCA incorporates greenfield structure plan information. Three key greenfields areas around Pokeno, Tuakau and Horotiu have been earmarked for urban industrial uses, so have been included in the BDCA due to the role that they play for the future of the Waikato District business land.

Together, the above zoning and the greenfield structure plan data was used to delineate the urban areas assessed for development under the Waikato District section of the FPP BDCA.

2.3.3 Waipa District

As with the other Future Proof Partners, the Waipa District has a distinctive set of zones that enable a range of uses balancing business, residential, environmental, and recreational land uses. As compared with the other FPP councils however, the zones in Waipa District are less complex to incorporate into the BDCA model. The spatial distribution and full list of zones can be found in Figure 2.7.

Figure 2.7 – Land Use Zones in Waipa



The key zones assessed under the Waipa District BDCA are the:

- Airport Business Zone,
- Commercial Zone,
- Deferred Commercial Zone,
- Industrial Zone,
- Deferred Industrial Zone,
- Lake Karapiro Events Zone,
- Mystery Creek Events Zone, and the
- Specialised Industrial Zone.

The Airport Business Zone solely exists as a zoned area around the Hamilton Airport. Although the activities allowed here are relatively restricted due to the sensitivity of the airport, there is the potential for a range of commercial, retail, and industrial uses to occupy the vacant land areas. Currently a 75 hectare mixed use industrial and commercial development is taking place in and around the Airport Business Zone. This development is important for the business land supply of the region and has caused the Airport Business Zone to be included into the BDCA on this basis.

The Commercial Zone is located in clusters within the main urban settlements of Cambridge, Te Awamutu, Kihikihi and Pirongia. The Commercial Zone forms the basis for the town centres within these towns and is home to the main retail and commercial activities that exist. The Deferred Commercial Zone exists solely in Cambridge, in an area that is currently dedicated to industrial type activities. This zone has been earmarked for redevelopment into commercial and retail uses within the District Plan. Together the Commercial and Deferred Commercial Zones form the heart of non-residential urban developments within the Waipa District. Due to their importance in the urban geography of the district, they have been included in the BDCA.

The Industrial, Deferred Industrial, and Specialised Industrial Zones (SIZ) together establish the locations available for industrial land uses throughout the Waipa District. These are primarily located on the outskirts of the urban towns of Cambridge, Te Awamutu and Kihikihi, with a large area of land also zoned to the north of the Hamilton Airport. The Industrial Zone acts as a general catchall for light and heavy industrial activities, including warehousing, factory processing, and yard-based activities. The Deferred Industrial Zone is undeveloped land that has been earmarked for industrial development at a later stage. The SIZ contains key industrial sites, most significantly the Fonterra dairy processing plants. The SIZ is relatively restricted compared to the other industrial zones, only allowing activities that are complementary to dairy processing activities. These three industrial zones together have been included within the BDCA as a means to effectively assess the industrial capacity of the Waipa District.

The Lake Karapiro and Mystery Creek Events Zones have also been included in the BDCA. The two zones provide locally significant areas of land, with the Mystery Creek Events zone totalling nearly 47 hectares. These have been included because of their ability to provide land capacity for commercial and industrial

employment. These sites are largely vacant, and although they are currently reserved for events, their potential land capacity is included in the BDCA for completeness.

3 The District Economy

In this section a broad overview of the Future Proof economy is provided. The structure and make-up of the current economy and broad trends are discussed along with a disaggregation across the three TA's that make up the area. Sectors that are expected to drive future growth are identified and outlined.

3.1 The Current Economy

The Future Proof Area is made up of three TLAs. There is significant differences between the three economies that reflect the different roles each play within the FPP. Hamilton has high relative concentrations of employment in the public sector – public administration and safety, health and education and the social assistance and other services sectors. In addition, high concentrations of retailing, manufacturing and utilities reflect its role as the regions prime city.

The economies of both Waikato District and Waipa District are heavily reliant on the primary production sectors for employment (30% and 19% respectively). Hamilton City relies on the primary sector to feed its industrial and service sector base. Hamilton therefore, has an indirect employment relationship with the farming sectors.

Waikato and Waipa are noticeably different from each other. A portion of this difference is driven by the location of minerals such as coal and aggregate and the relative location of the districts relative to Auckland. Waikato District has the highest concentration of construction sector employees as the spill-overs from Auckland begin driving growth in; Pokeno, Tuakau, Te Kauwhata and the large infrastructure projects such as the Southern Motorway extension towards Hamilton. Mining and Quarrying are also highly concentrated in Waikato. The District accounts for over 7% of the nation's employment in this sector, yet less than 1% of total NZ employment.

Waikato also has lower concentration of tertiary sectors (retail trades, hospitality, financial and professional services, administration, health care social and other services) with both Hamilton and Auckland providing the majority of these services to the district.

Waipa District also has high reliance of the agricultural sectors for employment with a locational quotient of 2.75 (compared with the rest of New Zealand). The construction sector is also strongly represented reflecting high levels of residential and civil construction. However, unlike Waikato Waipa has higher than expected concentrations of retail activity, education and training and Arts and Recreational services. This last sector is important as it captures the high-performance sports facilities that Waipa District is beginning to see concentrated around Cambridge (Rowing at Karapiro and Cycling at the Velodrome in Cambridge).

Again, with Waikato, professional and financial services are under-represented as Hamilton City businesses meet the wider needs of the FPP.

3.1.1 Sector Level – Employment

Employment within the Future Proof Partners can be seen in Waikato District hosts 16.3% of total employees within the FPP. The largest concentration of employees is in the Agriculture, Forestry and Fishing sector, accounting for 29.4% (6,400 of 21,733) of all MECs, followed by the Manufacturing and Construction sectors (both equalling 11.1% of the total).

Figure 3.1, in the form of MECs (Modified Employment Count) – a metric composed of employees and working proprietors.

Hamilton City hosts the largest number of employees, with 68% of the total FPP workforce. The employees are spread over a range of sectors, in line with its role as the main city within the Waikato and New Zealand's 4th largest city.

The Health Care and Social Assistance sector engages 14,912 MECs (16.5% of total MECs within Hamilton City), followed by Manufacturing with 9,646 MECs (10.6%), Retail trade with 9,304 MECs (10.3%), Education and Training with 8,450 MECs (9.3%) and Professional, Scientific and Technical Services with 8,300 MECs (9.2%). The level of employment in these sectors reflects Hamilton's role as an urban centre, meeting the needs of a wide population across the FPP and beyond.

Waikato District hosts 16.3% of total employees within the FPP. The largest concentration of employees is in the Agriculture, Forestry and Fishing sector, accounting for 29.4% (6,400 of 21,733) of all MECs, followed by the Manufacturing and Construction sectors (both equalling 11.1% of the total).

Figure 3.1: FP Partners Employment (MECs), 2016

Sector	Hamilton City	Waikato District	Waipa District	Total
Agriculture, Forestry and Fishing	523	6,400	4,025	**10,948**
Mining	38	382	27	**447**
Manufacturing	9,646	2,404	2,236	**14,286**
Electricity, Gas, Water and Waste Services	695	501	127	**1,322**
Construction	7,618	2,403	2,054	**12,074**
Wholesale Trade	4,082	331	952	**5,365**
Retail Trade	9,304	922	2,105	**12,330**
Accommodation and Food Services	5,310	940	1,153	**7,403**
Transport, Postal and Warehousing	2,418	698	953	**4,069**
Information Media and Telecommunications	1,246	150	103	**1,499**
Financial and Insurance Services	1,617	70	220	**1,906**
Rental, Hiring and Real Estate Services	1,549	504	486	**2,539**
Professional, Scientific and Technical Services	8,300	1,042	1,450	**10,793**
Administrative and Support Services	4,933	611	500	**6,044**
Public Administration and Safety	5,234	908	384	**6,527**
Education and Training	8,450	1,746	1,863	**12,058**
Health Care and Social Assistance	14,912	1,128	1,207	**17,247**
Arts and Recreation Services	1,677	304	531	**2,512**
Other Services	3,042	290	558	**3,891**
TOTAL	**90,592**	**21,733**	**20,933**	**133,258**

Waipa District employs 15.7% of all MECs within the Future Proof Partners area. As with Waikato District, the largest sectors are Agriculture, Forestry and Fishing (4,025 or 19.2% of the total 20,933), Manufacturing (2,236 or 10.7%), and Construction 2,054 or 9.8% of the total). Compared to Waikato District however, Retail Trade sector employees are higher in absolute numbers (2,105 versus 922 MECs), equating to 10.1% of all employees within Waipa District. This trend is reflected in other sectors also, indicating that there are some differences between these two districts.

The employment trends are reflective of urban environments within the Waikato and Waipa Districts. Urban-centric sectors within Waipa District have a higher overall concentration of MECs than the same sectors within Waikato District. Along with the fact that Waipa District is only one-third the size of Waikato District (Section 2.1), the employment trends imply that Waipa District is overall more urban in terms of the economy than Waikato District. This is consistent with the spatial development of the two districts, wherein Waikato District is extensive with many small towns interspersed by rural areas, while Waipa District is centred largely around the two larger townships of Cambridge and Te Awamutu-Kihikihi.

Figure 3.2: FP Partners Businesses (GEOs), 2016

Sector	Hamilton City	Waikato District	Waipa District	Total
Agriculture, Forestry and Fishing	237	2,999	2,012	**5,247**
Mining	7	26	10	**42**
Manufacturing	698	328	296	**1,322**
Electricity, Gas, Water and Waste Services	38	30	24	**92**
Construction	1,621	892	708	**3,222**
Wholesale Trade	618	160	225	**1,003**
Retail Trade	1,275	264	331	**1,870**
Accommodation and Food Services	733	155	171	**1,059**
Transport, Postal and Warehousing	414	180	152	**746**
Information Media and Telecommunications	99	35	22	**156**
Financial and Insurance Services	983	378	369	**1,729**
Rental, Hiring and Real Estate Services	3,034	1,713	1,471	**6,218**
Professional, Scientific and Technical Services	1,641	481	474	**2,595**
Administrative and Support Services	572	177	160	**909**
Public Administration and Safety	99	44	29	**171**
Education and Training	362	167	118	**647**
Health Care and Social Assistance	983	233	212	**1,428**
Arts and Recreation Services	235	155	191	**581**
Other Services	807	253	268	**1,328**
TOTAL	**14,454**	**8,669**	**7,241**	**30,364**

Source: Statistics NZ Business Frame, 2016

The composition of businesses within the Future Proof Partnership councils mirror that of the MECs, with Hamilton City largely comprised of urban-centric businesses, while Waikato and Waipa Districts have a large number of Agriculture, Forestry and Fishing sector businesses.[7]

[7] The large number of Rental, Hiring and Real Estate Services businesses as compared to MECs are the result of inactive companies and shell corporations.

Hamilton houses 48% of the businesses within the FP area but these businesses are larger on average as it employs 68% of the total employees. The average business in Hamilton employs 6.3 workers whereas the average in Waikato District is only 2.5 and Waipa 2.9MECs/Geo Unit.

3.1.2 Key economic sectors

In terms of the distribution of employment by sector. Hamilton has high levels of relative employment in the higher order service sectors, (Finance and Insurance, Communications, Administration and Health Care and Social Services). This is as expected given its role as the Waikato Regional Centre.

Waikato District has a stronger primary sector, extractive industries and utilities focus (electricity and gas generation and water and waste services).

Figure 3.3: FP Partners Businesses (Share %), 2016

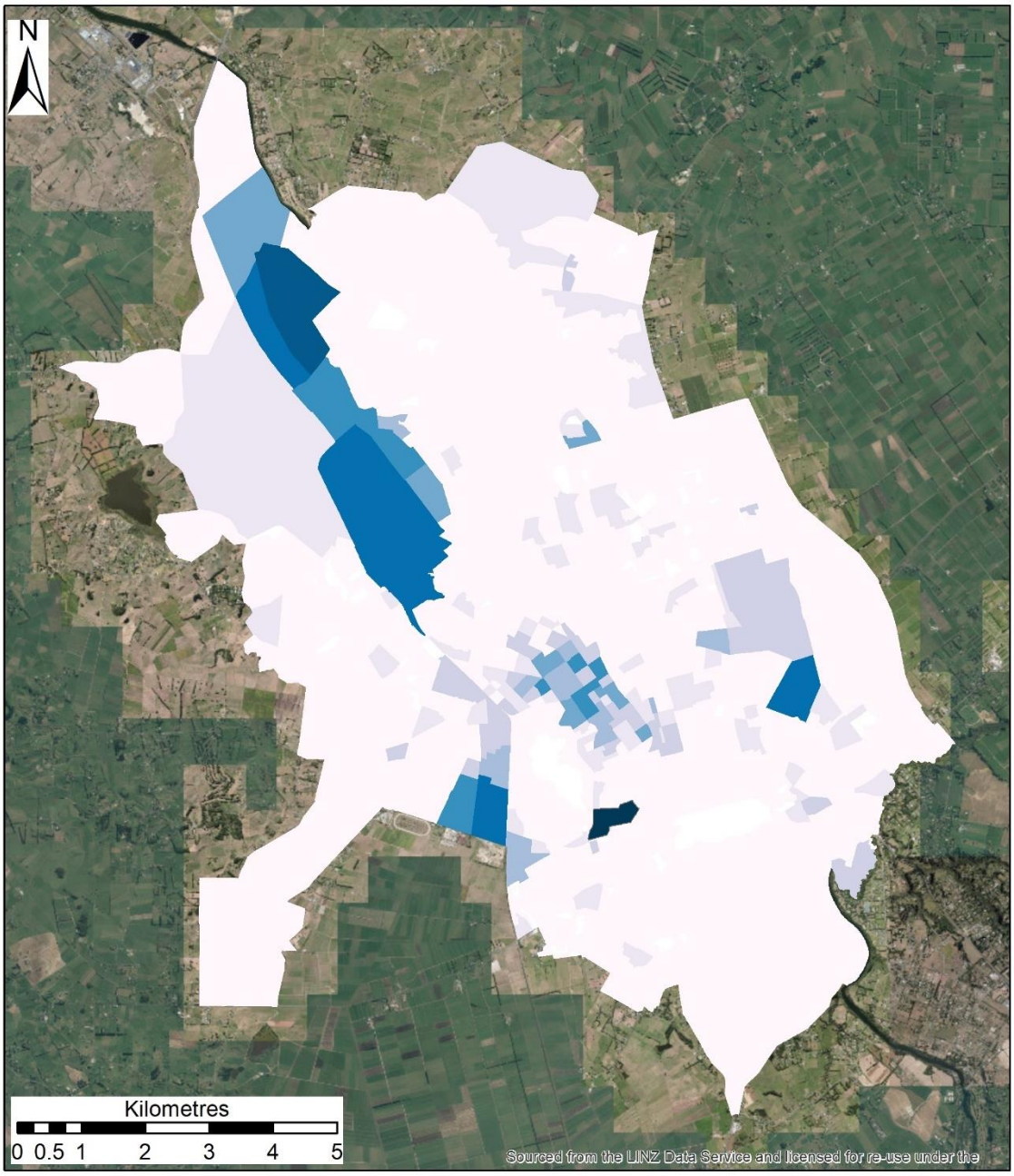
Sector	Hamilton City	Waikato District	Waipa District	Total
Agriculture, Forestry and Fishing	0.6%	29.4%	19.2%	**8.2%**
Mining	0.0%	1.8%	0.1%	**0.3%**
Manufacturing	10.6%	11.1%	10.7%	**10.7%**
Electricity, Gas, Water and Waste Services	0.8%	2.3%	0.6%	**1.0%**
Construction	8.4%	11.1%	9.8%	**9.1%**
Wholesale Trade	4.5%	1.5%	4.5%	**4.0%**
Retail Trade	10.3%	4.2%	10.1%	**9.3%**
Accommodation and Food Services	5.9%	4.3%	5.5%	**5.6%**
Transport, Postal and Warehousing	2.7%	3.2%	4.6%	**3.1%**
Information Media and Telecommunications	1.4%	0.7%	0.5%	**1.1%**
Financial and Insurance Services	1.8%	0.3%	1.1%	**1.4%**
Rental, Hiring and Real Estate Services	1.7%	2.3%	2.3%	**1.9%**
Professional, Scientific and Technical Services	9.2%	4.8%	6.9%	**8.1%**
Administrative and Support Services	5.4%	2.8%	2.4%	**4.5%**
Public Administration and Safety	5.8%	4.2%	1.8%	**4.9%**
Education and Training	9.3%	8.0%	8.9%	**9.0%**
Health Care and Social Assistance	16.5%	5.2%	5.8%	**12.9%**
Arts and Recreation Services	1.9%	1.4%	2.5%	**1.9%**
Other Services	3.4%	1.3%	2.7%	**2.9%**
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Waipa also has a primary sector focus along with Transport and warehousing concentration, Rental Hiring and Real estate services and the Arts and Recreational services. The presence of a number of national level sports specialty training centres contributes strongly to this.

3.1.3 Spatial Distribution of Businesses and Employment

The following figures show the spatial distribution of total MECs across each of the FPP Councils.

Figure 3.4 – Distribution of Employment by Meshblock, Hamilton City



Legend

0 MECs	751 to 1000 MECs
1 to 100 MECs	1001 to 1500 MECs
101 to 250 MECs	1501 to 2500 MECs
251 to 500 MECs	2501 to 4000 MECs
501 to 750 MECs	4001 to 5500 MECs

Source: Business Directory 2016

Figure 3.5 - Distribution of Employment by Meshblock, Waikato District

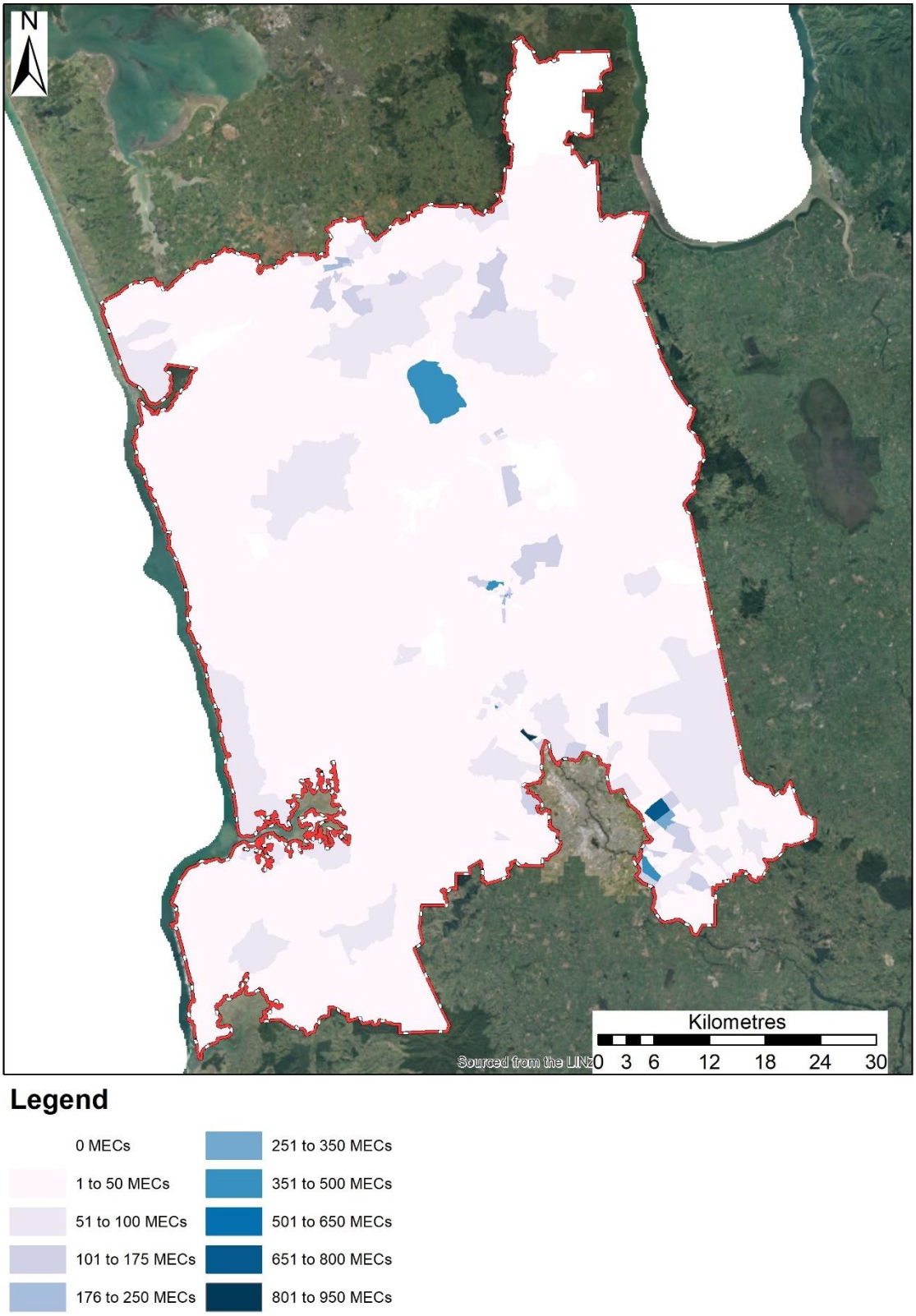
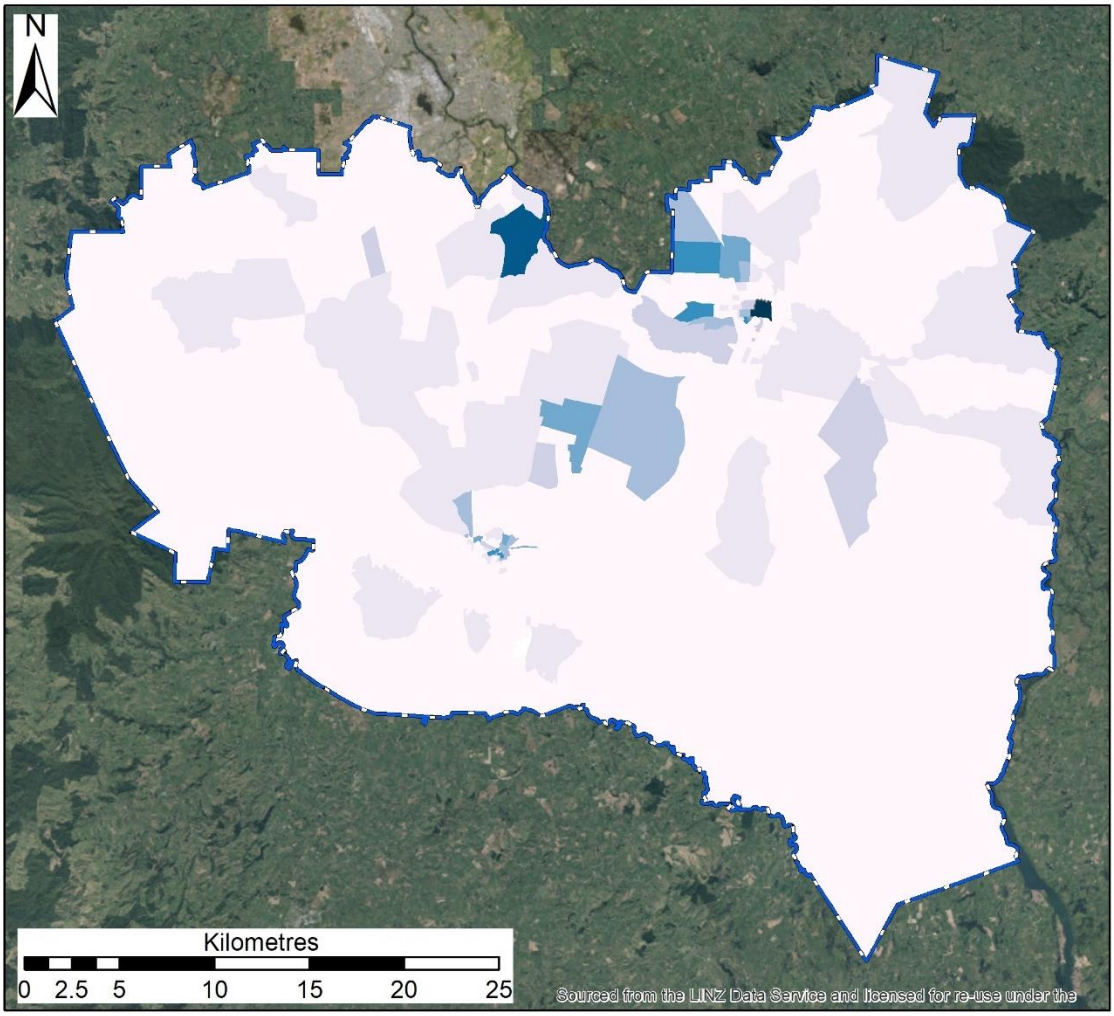


Figure 3.6 - Distribution of Employment by Meshblock, Waipa District



Legend

0 MECs	251 to 350 MECs
1 to 50 MECs	351 to 500 MECs
51 to 100 MECs	501 to 650 MECs
101 to 175 MECs	651 to 800 MECs
176 to 250 MECs	801 to 950 MECs

3.2 Recent Changes in the Economy

3.2.1 Sector Level – Employment

Recent changes in employment within each of the TAs provides solid indications of sectors that are driving the various economies.

Hamilton City

Since 2000 the Hamilton City economy has increased employment by over 25,000 workers or by almost 40% in total. This translates into an average increase of around 2.4% annually. However, this overall average masks significant variation in growth rates. Between 2000 and 2005 the economy grew by 4.6% annually. This high period of growth was followed by 5 years of stagnation as employment between 2005 and 2010 grew by only 0.3% annually. This time period spanned the GFC, that saw many economies halt growth or go into decline. Since 2010, the economy in employment terms has grown at a modest 1.9% annually (Figure 3.7).

Figure 3.7: Hamilton City Employment Changes (MECs) 2000 - 2016

Sector	2000 - 2005	2005 - 2010	2010 - 2016	Total 2000 - 2016
Agriculture, Forestry and Fishing	-205	89	-300	**-415**
Mining	22	-14	17	**24**
Manufacturing	1,113	-1,048	1,571	**1,636**
Electricity, Gas, Water and Waste Services	-32	133	125	**226**
Construction	1,729	-199	1,218	**2,749**
Wholesale Trade	953	-82	-318	**553**
Retail Trade	1,207	253	626	**2,086**
Accommodation and Food Services	1,224	-606	948	**1,566**
Transport, Postal and Warehousing	-120	-383	450	**-52**
Information Media and Telecommunications	256	-829	-274	**-847**
Financial and Insurance Services	-1	-1	-47	**-49**
Rental, Hiring and Real Estate Services	99	-84	121	**136**
Professional, Scientific and Technical Services	2,316	528	900	**3,745**
Administrative and Support Services	1,467	614	81	**2,162**
Public Administration and Safety	179	1,223	759	**2,160**
Education and Training	985	410	808	**2,203**
Health Care and Social Assistance	2,368	1,490	2,680	**6,538**
Arts and Recreation Services	445	20	175	**640**
Other Services	917	-276	-279	**361**
TOTAL	**14,922**	**1,239**	**9,261**	**25,422**

Figure 3.8: Hamilton City Employment Changes (%) 2000 - 2016

Sector	2000 - 2005	2005 - 2010	2010 - 2016	Total 2000 - 2016
Agriculture, Forestry and Fishing	-4.4%	2.4%	-6.1%	**-2.8%**
Mining	32.1%	-8.1%	13.8%	**11.4%**
Manufacturing	2.8%	-2.3%	3.2%	**1.3%**
Electricity, Gas, Water and Waste Services	-1.4%	6.1%	3.7%	**3.0%**
Construction	7.1%	-0.6%	3.2%	**3.5%**
Wholesale Trade	5.4%	-0.4%	-1.2%	**1.0%**
Retail Trade	3.3%	0.6%	1.2%	**1.8%**
Accommodation and Food Services	6.5%	-2.4%	3.6%	**2.6%**
Transport, Postal and Warehousing	-1.0%	-3.3%	3.8%	**-0.1%**
Information Media and Telecommunications	2.4%	-7.1%	-3.0%	**-2.5%**
Financial and Insurance Services	0.0%	0.0%	-0.5%	**-0.2%**
Rental, Hiring and Real Estate Services	1.4%	-1.1%	1.4%	**0.6%**
Professional, Scientific and Technical Services	10.2%	1.5%	2.0%	**5.1%**
Administrative and Support Services	10.6%	2.9%	0.3%	**4.9%**
Public Administration and Safety	1.2%	7.5%	2.8%	**4.4%**
Education and Training	3.2%	1.1%	1.8%	**2.2%**
Health Care and Social Assistance	5.7%	2.8%	3.7%	**4.9%**
Arts and Recreation Services	8.6%	0.3%	1.9%	**3.9%**
Other Services	6.8%	-1.5%	-1.4%	**0.8%**
TOTAL	**4.6%**	**0.3%**	**1.9%**	**2.4%**

In addition to the overall growth rates being variable, growth between sectors has been uneven as the economy continues to evolve. Between 2000 and 2016 approximately 2/3rds of the growth has been in the Professional, Scientific and Technical services, administrative and public service and education, health and social assistance sectors. Strong growth has also occurred in the Construction sector as the City's residential growth has accelerated.

A few sectors are in decline as either technological change occurs (as with the Information Media and Telecommunications sector) or land use changes (Agriculture is forced out of Hamilton City as the city grows and the land increases in value) (Figure 3.8).

Waikato District

Growth in employment in Waikato District has also varied widely since 2000. In total employment in the District has increased by 21% since 2000, at an average annual rate of 1.3%. This is significantly slower than in Hamilton City. Growth has been lumpy with growth of only 1% between 2000 and 2005. This was followed by a decline over the GFC of on average 1.5% annually between 2005 and 2010. However, over the 6 years since 2010, the economy has increased employment by an average of 4% annually.

The highest levels of employment growth have occurred in the Construction sector which increased by 4.7% over the 16 years, however this made up almost 28% of total growth. Employment in the Primary sectors has shown sharp decline with a net loss of 1,700 employees, or 21% of its 2000 total. The professional, scientific technical services, administrative, education, health and social assistance sectors have grown by 74% over the 16 years. This is noticeably more than in Hamilton City (Figure 3.9 and Figure 3.10).

Figure 3.9: Waikato District Employment Changes (MECs) 2000 - 2016

Sector	2000 - 2005	2005 - 2010	2010 - 2016	Total 2000 - 2016
Agriculture, Forestry and Fishing	-1,520	-1,327	1,143	**-1,704**
Mining	172	3	-188	**-13**
Manufacturing	351	-385	909	**874**
Electricity, Gas, Water and Waste Services	149	100	118	**367**
Construction	396	-16	656	**1,036**
Wholesale Trade	97	-70	-27	**-1**
Retail Trade	55	-140	134	**49**
Accommodation and Food Services	227	-79	60	**207**
Transport, Postal and Warehousing	173	-196	21	**-2**
Information Media and Telecommunications	20	1	87	**109**
Financial and Insurance Services	-2	19	-25	**-8**
Rental, Hiring and Real Estate Services	18	25	66	**109**
Professional, Scientific and Technical Services	315	105	353	**773**
Administrative and Support Services	260	52	129	**441**
Public Administration and Safety	20	122	445	**587**
Education and Training	-24	318	154	**448**
Health Care and Social Assistance	141	-16	370	**496**
Arts and Recreation Services	51	40	-43	**49**
Other Services	19	25	-148	**-103**
TOTAL	**920**	**-1,419**	**4,211**	**3,712**

Figure 3.10: Waikato District Employment Changes (%) 2000 - 2016

Sector	2000 - 2005	2005 - 2010	2010 - 2016	Total 2000 - 2016
Agriculture, Forestry and Fishing	-3.8%	-4.0%	3.6%	**-1.3%**
Mining	8.7%	0.1%	-5.5%	**-0.2%**
Manufacturing	4.6%	-4.1%	10.1%	**3.6%**
Electricity, Gas, Water and Waste Services	22.2%	7.0%	5.1%	**17.1%**
Construction	5.8%	-0.2%	6.3%	**4.7%**
Wholesale Trade	5.8%	-3.3%	-1.3%	**0.0%**
Retail Trade	1.3%	-3.0%	2.8%	**0.4%**
Accommodation and Food Services	6.2%	-1.6%	1.1%	**1.8%**
Transport, Postal and Warehousing	5.0%	-4.5%	0.5%	**0.0%**
Information Media and Telecommunications	9.9%	0.3%	23.2%	**16.4%**
Financial and Insurance Services	-0.5%	5.1%	-4.4%	**-0.6%**
Rental, Hiring and Real Estate Services	0.9%	1.2%	2.5%	**1.7%**
Professional, Scientific and Technical Services	23.4%	3.6%	8.5%	**18.0%**
Administrative and Support Services	30.5%	2.4%	4.4%	**16.2%**
Public Administration and Safety	1.3%	7.1%	16.0%	**11.4%**
Education and Training	-0.4%	5.0%	1.6%	**2.2%**
Health Care and Social Assistance	4.5%	-0.4%	8.1%	**4.9%**
Arts and Recreation Services	4.0%	2.6%	-2.0%	**1.2%**
Other Services	1.0%	1.2%	-5.6%	**-1.6%**
TOTAL	**1.0%**	**-1.5%**	**4.0%**	**1.3%**

Waipa District

In terms of employment growth Waipa District sits between Waikato and Hamilton District. In total the District has seen employment growth of 25% since 2000 – an average of 1.6% annually. In addition, the variations between the three periods presented in Figure 3.11 are lower than the other TAs. Between 2000 and 2005 the District grew by 2.5% annually. This was followed by low growth over the GFC (2005 – 2010) of 0.6% annually (higher than both Waikato District and Hamilton City). IN the past 6 years the District has grown at an average of 1.8% annually.

At a sector level growth is more evenly spread with the services sectors listed above only accounting for 43% of total growth (versus 66% in HCC and 74% in WDC). Professional technical and scientific services is the highest growth sector accounting for 20% of all growth, followed closely by the Construction sector at 19.5%. Education and manufacturing are the next highest at around 17% of total growth each.

As with Waikato and Hamilton, employment in the primary sectors has declined by almost 1,000 workers since 2000 or by around 23% (Figure 3.11 and Figure 3.12).

Figure 3.11: Waipa District Employment Changes (MECs) 2000 - 2016

Sector	2000 - 2005	2005 - 2010	2010 - 2016	Total 2000 - 2016
Agriculture, Forestry and Fishing	-790	-274	77	**-986**
Mining	-3	9	-26	**-19**
Manufacturing	338	237	142	**717**
Electricity, Gas, Water and Waste Services	40	21	-7	**54**
Construction	398	-144	567	**822**
Wholesale Trade	188	-4	175	**359**
Retail Trade	120	-85	395	**430**
Accommodation and Food Services	212	196	92	**500**
Transport, Postal and Warehousing	64	-187	362	**238**
Information Media and Telecommunications	20	-35	24	**10**
Financial and Insurance Services	60	13	-22	**51**
Rental, Hiring and Real Estate Services	-51	109	-49	**9**
Professional, Scientific and Technical Services	663	143	42	**848**
Administrative and Support Services	-68	39	50	**20**
Public Administration and Safety	48	42	63	**153**
Education and Training	279	343	104	**726**
Health Care and Social Assistance	-101	22	123	**44**
Arts and Recreation Services	221	-30	-52	**138**
Other Services	14	128	-44	**97**
TOTAL	**1,652**	**542**	**2,017**	**4,210**

Figure 3.12: Waipa District Employment Changes (%) 2000 - 2016

Sector	2000 - 2005	2005 - 2010	2010 - 2016	Total 2000 - 2016
Agriculture, Forestry and Fishing	-3.2%	-1.3%	0.3%	-1.2%
Mining	-1.1%	4.2%	-8.1%	-2.6%
Manufacturing	4.5%	2.5%	1.1%	3.0%
Electricity, Gas, Water and Waste Services	11.0%	3.8%	-0.9%	4.6%
Construction	6.5%	-1.8%	6.4%	4.2%
Wholesale Trade	6.3%	-0.1%	3.8%	3.8%
Retail Trade	1.4%	-0.9%	3.8%	1.6%
Accommodation and Food Services	6.5%	4.5%	1.4%	4.8%
Transport, Postal and Warehousing	1.8%	-4.8%	10.2%	2.1%
Information Media and Telecommunications	4.3%	-6.2%	5.2%	0.6%
Financial and Insurance Services	7.1%	1.2%	-1.5%	1.9%
Rental, Hiring and Real Estate Services	-2.1%	5.1%	-1.5%	0.1%
Professional, Scientific and Technical Services	22.0%	2.3%	0.5%	8.8%
Administrative and Support Services	-2.8%	1.9%	1.8%	0.3%
Public Administration and Safety	4.1%	3.0%	3.3%	4.1%
Education and Training	4.9%	4.8%	1.0%	4.0%
Health Care and Social Assistance	-1.7%	0.4%	1.9%	0.2%
Arts and Recreation Services	11.2%	-1.0%	-1.5%	2.2%
Other Services	0.6%	5.4%	-1.2%	1.3%
TOTAL	**2.0%**	**0.6%**	**1.8%**	**1.6%**

3.3 Economic Growth Projections

The NPS requires Councils to understand more about the growth pressures they are likely to face over the short, medium and long term. This means developing a set of economic projections that form the basis for generating estimates of the amount of employment land required and the amount of GFA needed to be developed on that land to accommodate growth. For FPP we have relied on two related economic models to generate employment and GDP projections.

- Waikato Integrated Scenario Explorer (WISE) Model
- Unconstrained Economic Futures Model (EFM)

The WISE model was developed by ME as part of the Sustainable Pathways stream of research funded by Central Government. Basically it is a platform that allows councils to incorporate a large number of independent models that assess the effects of change in the economic, environment, social and cultural spheres. The platform takes a systems type approach to assessing change and the effects of alternative policy settings. Because all impact models are integrated WISE allows users to assess the potentially unintended effects of alternative policies. For example, economic growth that focuses on increases in Dairy sector output, may result in land use change that reduces outputs in forestry or sheep and beef. It may also lead to increased nitrogen runoff into rivers and streams and increases in greenhouse gas emissions. The WISE model allows all of these changes to be observed through time.

In terms of land use, the WISE model has limitations with respect to answering the questions asked of Councils by the NPS. THE NPS asks, how much land should TAs provide to cater for business growth in the

short, medium and long term. In effect the NPS wants Council to assess an unconstrained growth path and set aside or make provision for that growth within its planning frameworks.

WISE, takes a given planning framework and says, how does land use change as a result of exogenous growth pressures under the given planning framework. This means that should certain land use constraints become evident in the course of the model run, the WISE model adjusts output or reallocates growth to other places – or not at all. In effect, this defeats the NPS assessment as it doesn't provide an ability to compare an unconstrained growth future with an amount of plan enabled capacity designed to meet those growth needs.

To overcome this, WISE underlying projections[8] have been used in the Economic Futures Model. The EFM produces an unconstrained sector level projections of employment, gross output and GDP given inputs of population, export sector performance (at the national level), household consumption growth, Multi-factor productivity and gross fixed capital formation rates. The EFM is multi regional which means that it accounts for cross boarder flows between jurisdictions. Therefore it properly accounts for the degree of reliance the FPP area has on the rest of Waikato Region and New Zealand, and the degree to which growth in those regions generates growth within the FPP area.

This is important as no economy at the TA or regional level operates in isolation – rather the economies are integrated with the rest of New Zealand. The EFM generates outputs for every 5 year period from 2016 to 2051. A key limitation with the EFM is that it is a comparative static model. This means that the model assumes that technology and business practices are fixed at a point in time, and that these do not alter over the study period. This means that while the model provides an accurate measure of short term changes, it does not deal with long term changes well. This is because the manner in which businesses engage with each other will change over time. New Technologies replace existing work practices and new competition sees sectors rise and fall in terms of their share of overall output.

The EFM does provide a sound base to understand at the broad level required by the NPS, how the FPP economy will grow in response to the broad drivers (population, export performance and productivity change). Given that the Business Land assessment will be repeated every 3 years, the Medium and Long term figures will be constantly reassessed as part of the demand assessment. It is important to note that the EFM will produce accurate detailed projections of short term changes and provide a robust guide to how the medium to long term changes are likely to manifest without the levels of accuracy of the short term.

Important also is the link between the household capacity assessment and the business assessment. The same population and household projections drive both sets of models. This ensures consistency across the reports and ensures Council are fully informed of the effects of alternative growth futures.

Figure 3.13 and Figure 3.14 highlight anticipated growth in employment (MECs) across the FPP are from 2016 to 2051. This data indicates growth slowing over time with total employment growing from 25,200 new MECs between 2021 and 2031 down to 20,300 between 2041 and 2051.

[8] NDEA local level population and household projections – low for Hamilton City and Medium for Waipa and Waikato

Figure 3.13: Future Proof Partners Area Employment Growth (MECs), 2016 - 2051

Broad Sector	2016	2021	2031	2041	2051	2021 - 2031	2031 - 2041	2041 - 2051
Primary	12,300	13,500	16,000	18,300	20,600	2,500	2,300	2,300
Industry	12,900	14,500	17,000	19,500	21,900	2,500	2,500	2,400
Utilities	1,500	1,700	2,000	2,300	2,600	300	300	300
Construction	10,900	12,200	14,300	16,500	18,500	2,100	2,200	2,000
Wholesale/Retail/Hospitality	25,900	28,800	33,900	38,500	42,100	5,100	4,600	3,600
Transport	3,600	4,000	4,900	5,700	6,400	900	800	700
Business/Finance/Governance	29,100	32,300	38,000	43,300	48,000	5,700	5,300	4,700
Education and Health	27,700	30,500	35,300	39,600	42,800	4,800	4,300	3,200
Arts/Rec and Personal Services	6,700	7,600	8,900	10,100	11,200	1,300	1,200	1,100
Total	**130,600**	**145,100**	**170,300**	**193,800**	**214,100**	**25,200**	**23,500**	**20,300**

Source: M.E EFM, Unconstrained.

On average annual growth declines from 2.2% annually over the 2016 – 2021 time period (broadly aligned with the "Short Term") to 1.0% annually between 2041 to 2051 (the final decade of the "Long Term").

Figure 3.14: Future Proof Partners Area Employment Growth Rates (%), 2016 – 2051

Broad Sector	2016 - 2021	2021 - 2031	2031 - 2041	2041 - 2051
Primary	2.0%	1.9%	1.4%	1.3%
Industry	2.5%	1.7%	1.5%	1.2%
Utilities	2.7%	1.8%	1.5%	1.3%
Construction	2.4%	1.7%	1.5%	1.2%
Wholesale/Retail/Hospitality	2.2%	1.8%	1.4%	0.9%
Transport	2.2%	2.3%	1.6%	1.2%
Business/Finance/Governance	2.2%	1.8%	1.4%	1.1%
Education and Health	2.0%	1.6%	1.2%	0.8%
Arts/Rec and Personal Services	2.7%	1.7%	1.3%	1.1%
Total	**2.2%**	**1.7%**	**1.4%**	**1.0%**

While the details of growth at the local level and how they translate into demand for land and space are covered in the next sector, the key points that emerge from economic growth at the macro level are;

- There is expected to be relatively strong growth over next 5 years across the FPP area
- Growth, overall tapers off over time with each ten year period showing lower average growth rates than the previous one.

Note that the growth projections have been made in consultation with Councils. Hamilton City Council have elected to model a low to medium growth future while Waikato and Waipa have adopted a medium growth future.

3.3.1 Drivers of Growth

The economic projections are driven by a set of "Business as Usual" commodity and service parameters, translated into demands. In the Input-Output framework (the basis of the MRIO) these demands are called 'final demands'.

Within the model final demands are made up of five categories: household consumption, international exports, inter-regional exports, gross fixed capital formation (GFKF), and changes in inventory. The process for deriving future BAU estimates for each category is as follows:

a) Household Consumption: The household consumption final demand is made up of four sub-consumption categories, 'Households', 'Private non-profit institutions servings households', 'Central Government' and 'Local Government'. Future estimates of demand in each sub-category is primarily driven by changes in future population. The Model uses University of Waikato's 5-year age sex cohort population projections covering all FPP TA's. It is assumed that each person within the region consumes a constant mix of goods and services. Thus, any population growth for the area will result in a proportional increase in the amount of goods and services consumed within each sub-categories.

   In addition, the model includes the implications of changing demographic structure on household consumption. For all sub-categories, future demands by each cohort are adjusted by a cohort-specific consumption scalar. These scalars define the ratio of spending by an average person across all cohorts, to the spending of an average person within the subject cohort.

   Resulting value for a particular year provides an estimate of the growth in total household consumption from the base year.

b) International Exports: are overseas demand of goods and services produced by an area and are exogenous inputs to the model. The growth projections used include BAU projections of international exports and future projections for each industry are generated by applying long-run average growth rates to the base year international export values as obtained from the Multi-Regional Input-Output Table (MRIO).

   The growth rates were generated using a number of different statistical methods. Selection of the time series techniques applied depended on the availability of the data and underlying production structure of the industry output being analysed. For example, long-run growth rates for agricultural industries were estimated based on long-run projections of physical stocks and land availability constraints. Conversely, industries with less physical constraints, such as services, were estimated based on long-run national export trends. The data utilised in these time series analyses were derived from SNZ's Overseas Trade Exports – Trade, Merchandise: Monthly Estimates of all Harmonised System Items 1989–2014.

c) Inter-regional Exports: are demands of good and services produced within a study area by areas outside the study area, but within New Zealand. In other words, trades between FPP areas and the rest of New Zealand affects demand for the production activities in each area.
d) Gross Fixed Capital Formation (GFKF): Future increases in investment demand are represented as a change in GFKF and is an exogenous input into the model. The future GFKF projections for each industry is generated by applying long-run average growth rates to the base year GFKF values as obtained from the MRIO. The growth rates were determined by econometric time-series analysis. The data utilised in the time-series analysis of GFKF are derived from SNZ's National Accounts gross fixed capital formation by industry time series.

e) **Changes in Inventory**: these are an endogenous variable within the model, where it's future projections are weighted average of future values of other final demand categories. Within the national accounts framework, the changes in inventory is an accounting balancing item and records changes in financial inventory stocks. Note: for many industries changes in inventory are very small compared with international exports, inter-regional exports, and GFKF.

In the FPP area the economy is driven by the following key drivers;

- **Dairy Farming**: Dairy farming is not a large employer of workforce (less than 2% of the national total), it is a key driver of employment in other sectors. Waikato Region is New Zealand Dairy hub with Hamilton City as the key support centre. Dairy farming drives everything from manufacturing of dairy products, to farm machinery and equipment, IT, research sector, retail and whole sale as well as construction. While the Dairy sector is not a high growth sector it is large and will remain the key driver of the FPP economy for the foreseeable future.

- **Population Growth**: This is driven by natural increases and the FPP proximity to Auckland. Significant growth in the north of the FPP area (Pokeno, Tuakau and even Te Kauwhata) is driven by spillover from Auckland. Population growth drives a range of other sectors including; retail, construction, health and education services and social and personal services. These are highly concentrated in Hamilton and employ large number of workers.

- **Tainui**: Local iwi are major players in a wide range of FPP based economic activity. Waikato iwi have an asset base worth in excess of $6bn (around 15% of the total iwi asset base). They are engaged in farming, forestry and tourism ventures across the FPP and are developing the Ruakura Freight hub to the West of Hamilton. The role this hub plays in future functioning of both Ports of Auckland and Ports of Tauranga will significantly impact on FPP growth futures. Decisions Tainui make with respect to the long term investments and the manner in which they engage with their people and the wider Waikato economy will drive future economic performance.

- **Waikato Expressway and other Transport links**: Completing the Waikato Expressway reduces the relative distance to the large Auckland market. This makes locating business activities – especially industrial activities in the FPP significantly more attractive. This combined with high volumes of relatively low cost serviced industrial land will drive growth to the north of Hamilton.

The FPP area forms one corner of the Golden Triangle. Taking advantage of these locational characteristics, its natural resources, historical and cultural capital, the skills and training of local workforce and entrepreneurial nature of its people will see ongoing solid growth across the FPP area. Productive land in the FPP area is highly developed and highly utilised. The environmental impacts of this are beginning to be felt in degraded water quality in regional rivers and lakes. This will lead to changes in land use patterns and potentially reductions in pasture-based output. Waikato is well placed to make these changes given the depth of infrastructure, the strength of its institutions and the will of it people to effect positive change.

4 Business Land and Floorspace Demand

Businesses demand land and built space to carry out their business activities, to accommodate their workforce and production processes. Therefore, business demand for land and space is derived from their need to operate in a location and house their workers. This means that economic growth in employment - generated in most economic projection models can be used to estimate the resulting growth in business land and built space demand.

This section provides estimates of employment growth translated into growth in demand for business land and built space by sector across the FPP area.

4.1 Sector – Space Relationships

Employed has been translated into the likely floorspace and land use requirements using the average floorspace per worker and land area per worker ratios presented in Figure 4.1. These averages are derived from current data relating to employment and land use/space types.

Figure 4.1: Employment to Space and Land conversions

Range	Office---Commercial	Office---Retail	Shops---Commercial	Shops---Retail	Accom.	Ware house	Factory
Floor Space per Employment (SQM)							
Min	13.0	20.0	10.0	15.0	15.0	100.0	80.0
Max	100.0	100.0	100.0	100.0	200.0	200.0	200.0
In use	**20.0**	**27.0**	**27.0**	**47.0**	**100.0**	**167.0**	**138.0**
Land Use per Employment (SQM)							
Min	13.0	20.0	10.0	15.0	15.0	100.0	80.0
Max	100.0	100.0	100.0	200.0	400.0	600.0	500.0
In use	**25.0**	**45.0**	**45.0**	**78.3**	**142.9**	**417.5**	**345.0**
Range	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial
Floor Space per Employment (SQM)							
Min	50.0	50.0	20.0	20.0	30.0	10.0	10.0
Max	150.0	150.0	120.0	120.0	100.0	100.0	100.0
In use	**85.0**	**100.0**	**60.0**	**60.0**	**60.0**	**20.0**	**20.0**
Land Use per Employment (SQM)							
Min	100.0	100.0	20.0	20.0	50.0	10.0	10.0
Max	350.0	350.0	500.0	500.0	500.0	1,000.0	1,000.0
In use	**200.0**	**200.0**	**100.0**	**150.0**	**120.0**	**33.3**	**50.0**

Diversity of space and land needs on a business by business basis result in wide variations between the maximums and minimums in this table. For the most part averages have been used – but this is an area that can be tested in future rounds of assessment and should be monitored to ensure assessment remains current.

Given the similarity of activities carried out by employees across a range of sectors, there are a smaller number of space types than there are activity types or economic sectors. For example, commercial office space may be occupied by a wide range of businesses and organisations across a number of sectors. For the purposes of the NPS-UDC, all space and land types have been condensed into 3 broad categories;

- Industrial: This covers both Heavy and Light Industry. The distinction between the 2 rests on the type and nature of emissions into the wider environment. Heavy Industrial activities need to be appropriately buffered from more sensitive activities such as residential land uses. Light Industrial activities may capture the same set of ANZSIC codes, yet due to scale or nature of production processes, do not require the same level of buffering. In addition, activities that may not be manufacturing in nature are categorised as Light Industrial for the purposes of the NPS-UDC. These include, yard-based storage, transport and distribution, construction, utilities, and wholesaling activities

- Commercial: As well as capturing commercial office activities and public administration. Commercial captures the paid accommodation sectors as well as health and education. This is due to the nature of the space types they occupy.

- Retail: This captures all forms of retail activity and personal retail-based services such as repairs and maintenance of household goods, hairdressing and other personal services plus a few categories of commercial activity including real estate agencies, dentists and optometrists.

However, to provide a degree of flexibility, employment has initially been allocated by 6 digit ANZSIC sectors to 15 different space types (for ease of use, this has been aggregated to 48 sectors x 15 Space types). The concordance matrix can be found in the accompanying appendix.

By outlining the information in a matrix format, we have allowed a single sector to split its activity between different space types. This is important as it is unlikely that all employment in any one industry occupies the exact same space type. A simple example is a large industrial business with a large industrial footprint, but also a warehouse area and a head office in commercial office space.

By utilising a matrix structure, we allow growth to translate much more realistically to the type of space it generates.

4.1.1 Plan Zones to Space Types

Having established an appropriate listing of space types, a matrix that aligns space types (above) with the planning zones that facilitate the space types has been developed for each of the partnership Councils. These concordance matrices have been developed based on the activity status tables within the various District Plans. Activities that have a designation of Permitted, Discretionary, or Restricted Discretionary have been assumed to provide capacity for those activities within a given zone. A loose coupling exists between the described activities (within the District Plans) and the above space types developed based on the 6 Digit ANZSIC x space type concordance described above.

4.1.2 Exclusion of Rural activity

The framework also captures rural activity in the form of farms. This has been excluded as it is not relevant in an urban development capacity assessment. However, any employment growth that would normally be associated with farms has been allocated to farms – and excluded from the amount Councils need to zone space for.

The following section contains the outputs for future business land demand across the Future Proof Partners area.

4.2 Future Demand for Urban Business Land

Future demand for Urban Business Land has been estimated based on population and employment growth projections based on inputs into the WISE model and the FPP EFM at the local level. These projections have been translated into localised space type demand based on the matrices and area ratios described in Section 4.1 for each of the Councils individually.

A summary of total business land demand by broad sector across the Future Proof Partners network can be seen in Figure 4.2.

Figure 4.2: FPP Total Business Land Demand by Broad Sector, 2017-2047 (Ha)

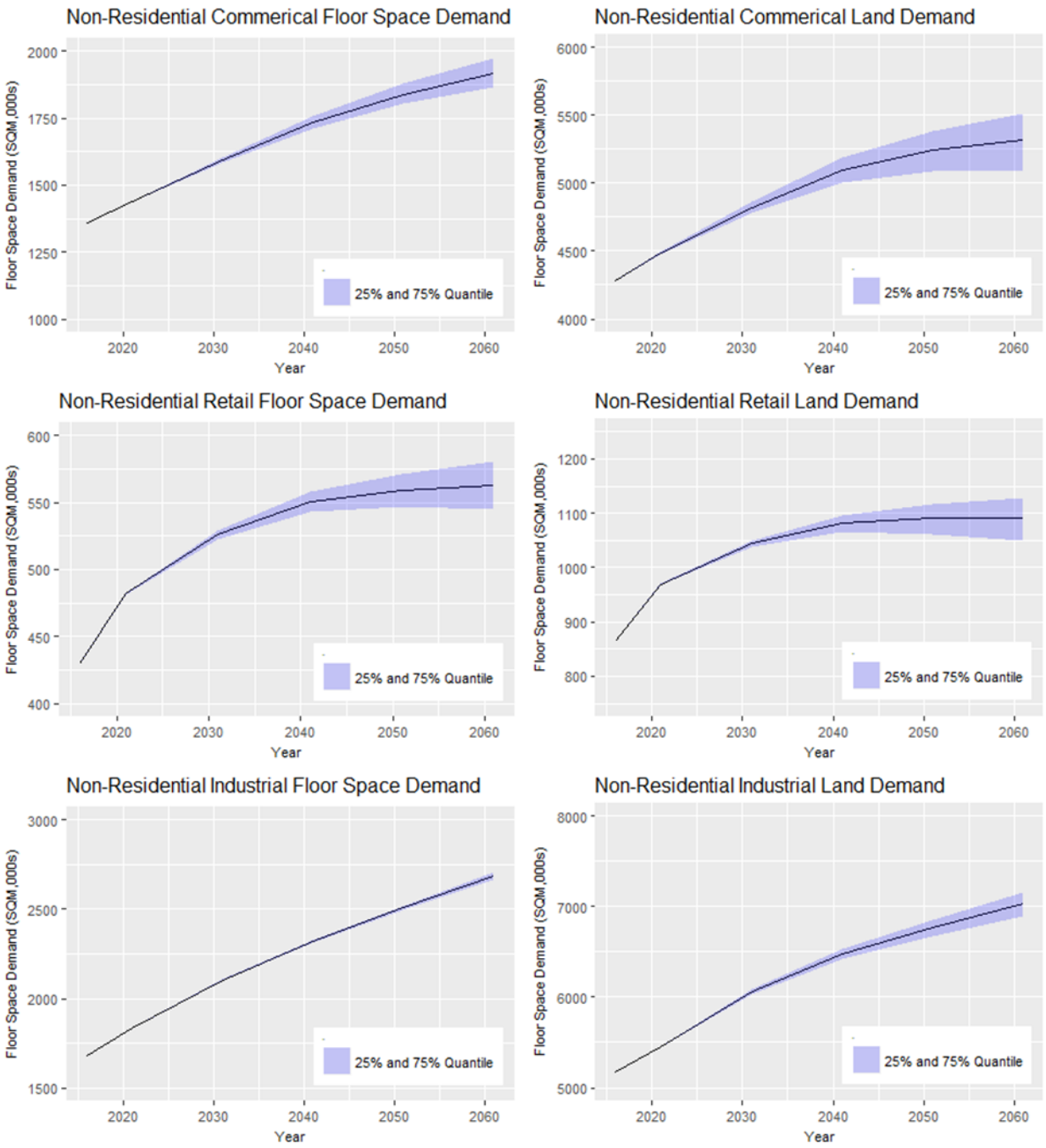
Broad Sector	Hamilton City	Waikato District	Waipa District	Total FPP Area
Commercial	87	33	30	150
Retail	36	11	11	59
Industrial	524	209	147	881
Total Vacant Bus. Land	**647**	**254**	**188**	**1,090**

At the total FPP scale it is clear that the majority of the business land demand is concentrated within Hamilton City, largely due to the expected population and employment growth that is concentrated in the city over the long term.

In all TAs, total industrial land demand significantly outweighs commercial and retail land demand. Much of this can be attributed to the higher land use per employee metric, as demonstrated in Figure 4.1. Generally industrial space types utilise a much larger land area than commercial or retail space types, due to development typologies such as yard-based and warehouse type activities. Although actual industrial employment numbers may be equivalent or smaller than those for the commercial or retail sector, industrial land demand outstrips those other sectors solely due to the much higher average land/employee.

Figure 4.3 shows levels of uncertainty within the business land and floorspace demand model over time for Hamilton City. Due to the nature of long-term population and employment projections, the uncertainty increases as the demand is projected further into the future. The sectors with a stable relationship between space and or land per employee are shown with tighter bands into the future. This means that there is more certainty around the industrial land and space projections than the commercial land projections.

Figure 4.3: Hamilton City Business Land and Floor Space demand with Uncertainty, 2017 - 2060



4.2.1 Hamilton City Future Business Land Demand

Hamilton's future demand for business land has been disaggregated into the three broad categories and allocated across the 20 subzones within the City. While it is important that the city provides a range of locations for different type of economic activity to occur, it is not necessary to ensure that every area

provides for every type of business activity. In fact, this leads to extremely inefficient cities as any benefits that arise from agglomeration are not captured and the city's urban form is compromised.

Commercial Land

In total we estimate that Hamilton City requires an additional 87ha of commercial land to cater for anticipated growth over the long term (total over 30 years). Approximately 15ha is required in the short term (next 3 years) and 69ha in total over the next 10 years.

Figure 4.4: Hamilton Commercial Land Demand (Ha)

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term
1	Te Rapa North	1.4	3.1	10.2
2	Te Rapa	0.2	4.0	4.8
3	Rotokauri	4.7	21.1	24.4
4	Norton	0.1	0.3	0.3
5	Dinsdale	-0.6	0.7	1.0
6	Temple View	1.1	5.9	6.8
7	Frankton	0.2	0.7	0.8
8	Glenview	0.7	1.0	1.0
9	Peacocke	1.3	13.9	16.4
10	Hillcrest	0.9	1.5	1.7
11	Hamilton East	0.9	5.2	6.0
12	Ruakura	-1.1	-0.9	-0.8
13	Chedworth-Fairview Downs	3.9	4.3	4.4
14	Claudelands	-1.4	-6.6	-7.7
15	Chartwell	0.2	0.6	0.7
16	Rototuna	0.3	6.0	7.1
17	Saint Andrews	0.1	0.2	0.2
18	Forest Lake	0.3	0.9	1.0
19	CBD	1.1	4.8	5.5
20	Hamilton Lake	0.5	2.5	2.9
Total		**15.0**	**69.1**	**86.7**

The largest areas of demand growth are Rotokauri in the north of the City and Peacocke in the south – reflecting the expansion of Hamilton along its North South Access. As described above, it is important not to become too aligned with ensuring each of these areas provide sufficient land or built space to meet the needs arising within. Commercial office activity tends to congregate in centres whereas many of the areas listed above are purely residential or industrial catchments. It is not efficient to have commercial space distributed widely and evenly across the urban landscape as this minimises any agglomeration benefits[9] that arise from the clustering of activities. The importance of colocation is reflected in the Multi-criteria analysis framework where the ability to collocate with other businesses has been allocated a high share of the locational decision process.

It is rare that Commercial land is zoned independently of retail land, as the aggregation of workforce and businesses naturally stimulates demand for retail and hospitality goods and services. In addition, most

[9] These include reduced transactional costs, easier transfer of skills and technologies and deep access to both potential clients and a large labour force.

commercial activities have an ability to locate on upper levels of retail centres, making an independent requirement for space redundant.

This is obviously not the case for the education sector or potentially most of the health sector, where specific areas of land must be catered for in the planning provisions.

Retail Land

Hamilton's retail land demand is tied closely with residential growth. In addition, changes in household demand characteristics means that on average households are increasing their demand for retail goods and services by approximately 1% annually (in real terms).

Over the next 30 years, Hamilton City is expected to require an additional 36ha of retail land. 6.2ha of this demand is expected in the next 3 years (short term) and 20ha of this demand within the next 10 years.

Figure 4.5: Hamilton Retail Land Demand (Ha)

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term
1	Te Rapa North	0.0	0.0	0.0
2	Te Rapa	-0.6	0.0	1.7
3	Rotokauri	0.0	0.7	3.0
4	Norton	0.1	0.1	0.0
5	Dinsdale	-0.1	0.3	0.7
6	Temple View	0.0	0.0	0.0
7	Frankton	0.1	0.6	1.8
8	Glenview	0.1	0.2	0.1
9	Peacocke	0.0	0.0	0.0
10	Hillcrest	0.1	0.3	0.4
11	Hamilton East	1.2	2.2	2.9
12	Ruakura	1.6	9.3	16.3
13	Chedworth-Fairview Downs	0.5	0.8	0.9
14	Claudelands	1.6	2.0	1.5
15	Chartwell	0.0	0.1	-0.4
16	Rototuna	0.7	1.0	1.4
17	Saint Andrews	0.0	0.0	-0.1
18	Forest Lake	0.5	0.7	0.6
19	CBD	0.2	1.7	5.2
20	Hamilton Lake	0.0	0.2	0.4
Total		**6.2**	**20.1**	**36.3**

Industrial Land

Industrial activities are land extensive, in that they require large amounts of land relative to the levels of employment they sustain. In addition, industrial activities are extremely sensitive to land price and are easily outbid for space by (mostly) large format retail activities. However, this does not mean that industrial activities are not valuable to the city or area – quite the contrary. Industrial activities often have deep linkages back through the wider economy sustaining much employment in supporting industries and service sectors. In addition, in Hamilton's case in particular, they support the upstream activities as well.

Dairy factories and meat processing plants ensure that the high value outputs from the pastoral sectors are transformed into high value commodities within the region, maximising employment and GDP retention.

Industrial land requires strong policy protection and robust planning frameworks within which to operate. If left to the free market to generate highest and best returns from the land, industrial activities will be out bid and face pressures to shift. By protecting the land resource for industrial activities, TA's are helping to ensure that market failure is avoided and an overall efficient economy results.

Market failure occurs when those that are forcing the change – i.e. those that are being allowed to bid for industrial land for non-industrial purposes are not paying the full costs associated with that decision. The resulting inefficient economy is not being paid for by the retailers, because the market cannot monetise those costs. Large format retailers are not able to respond to market price signals as a result.

Figure 4.6: Hamilton Industrial Land Demand (Ha)

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term
1	Te Rapa North	-2.3	-2.1	-0.9
2	Te Rapa	6.5	15.9	25.4
3	Rotokauri	47.2	175.7	243.1
4	Norton	5.9	35.9	65.6
5	Dinsdale	1.2	3.3	5.1
6	Temple View	0.1	0.6	4.1
7	Frankton	0.4	6.7	23.5
8	Glenview	6.3	22.2	73.2
9	Peacocke	0.0	1.0	3.3
10	Hillcrest	8.1	11.3	13.7
11	Hamilton East	0.0	1.2	4.5
12	Ruakura	4.9	4.5	14.2
13	Chedworth-Fairview Downs	0.5	0.8	1.3
14	Claudelands	-0.1	0.2	2.5
15	Chartwell	2.3	1.9	-4.4
16	Rototuna	10.6	14.0	14.9
17	Saint Andrews	9.7	10.0	10.7
18	Forest Lake	0.1	0.3	1.1
19	CBD	0.3	1.7	5.7
20	Hamilton Lake	8.4	12.9	17.7
Total		**110.1**	**318.0**	**524.4**

In total over the next 30 years, Hamilton City requires an additional 524ha of industrial land. 110ha are required in the short term (next 3 years) and 318ha over the next 10 years (medium term).

Note that this is the estimated demand, it does not include an additional margin as described in PC1 of 20% in the short to medium term and 15% in the long term to account for the proportion of feasible development capacity that may not be developed. This is discussed in section 7.4, below.

4.2.2 Waikato District Future Business Land Demand

As discussed above, demand for Waikato and Waipa Districts have been estimated at the Ward level as the wards are broadly based around the significant townships and urban areas.

In terms of commercial land demand. Waikato District is estimated to require 33.5ha of commercial land over the long term (30 years). The majority of this demand arises in the north – in the Awaroaki-Tuakau ward with almost 12ha of demand. This almost 3 times the next largest growth areas (Huntly ward at 3.8ha and Ngaruawahia at 3.5ha) (Figure 4.7).

Figure 4.7: Waikato Commercial Land Demand

Ward Code	Ward Name	Commercial Demand (Land Ha)			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*
1301	Awaroa ki Tuakau Ward	0.7	2.8	11.9	*11.9*
1302	Onewhero Ward	0.0	0.2	0.5	*0.5*
1303	Whangamarino Ward	0.3	0.9	2.2	*2.2*
1304	Hukanui-Waerenga Ward	0.3	0.9	2.5	*2.5*
1305	Whaingaroa Ward	0.1	0.3	1.1	*1.1*
1306	Huntly Ward	0.4	1.2	3.8	*3.8*
1307	Ngaruawahia Ward	0.5	1.3	3.3	*3.3*
1308	Newcastle Ward	0.3	0.8	2.5	*2.5*
1309	Raglan Ward	0.5	1.4	3.5	*3.5*
1310	Eureka Ward	0.2	0.8	1.8	*1.8*
1311	Tamahere Ward	0.1	0.1	0.4	*0.4*
TOTAL		3.2	10.6	33.5	*33.5*

I the short term 3.2ha is demanded over the next 3 years and a total of 10.6ha over the medium term (10 years). The rate of demand is approximately 1ha per year – this remains broadly consistent over the next 30 years.

Retail Land

In terms of retail land demand, Waikato District is estimated to require 11.4ha over the long term. The most demand arises in the North as Waikato District grows on the back of Auckland's expansion. Awaroaki-Tuakau ward sees demand growth of 4.6ha in the long term. In the short term (3 years) retail land demand is less than 1ha, with 3.2ha demanded over the next 10 years (Figure 4.8).

Figure 4.8: Waikato Retail Land Demand

Ward Code	Ward Name	Retail Demand (ha)			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*
1301	Awaroa ki Tuakau Ward	0.1	1.0	4.6	*4.6*
1302	Onewhero Ward	0.0	0.0	0.1	*0.1*
1303	Whangamarino Ward	0.1	0.2	0.6	*0.6*
1304	Hukanui-Waerenga Ward	0.0	0.1	0.3	*0.3*
1305	Whaingaroa Ward	0.0	0.1	0.3	*0.3*
1306	Huntly Ward	0.1	0.5	2.2	*2.2*
1307	Ngaruawahia Ward	0.1	0.3	0.9	*0.9*
1308	Newcastle Ward	0.1	0.2	0.6	*0.6*
1309	Raglan Ward	0.2	0.5	1.1	*1.1*
1310	Eureka Ward	0.1	0.2	0.5	*0.5*
1311	Tamahere Ward	0.0	0.1	0.2	*0.2*
TOTAL		0.8	3.2	11.4	*11.4*

Industrial Land

Industrial land demand in Waikato District is high. Over the long term over 209ha of land are estimated to be required. Of this, 22.8ha are required in the short term and 77.1ha in the medium term. While the most demand is from the north (65ha in Tuakau Awaroaki) there is strong demand across the rest of the district (59.7ha in Newcastle ward). There is solid demand in Huntly ward (17ha), Whangamarino ward (13ha) and Eureka ward (12ha) (Figure 4.9).

Figure 4.9: Waikato Industrial Land Demand

Ward Code	Ward Name	Industrial Demand (ha)			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*
1301	Awaroa ki Tuakau Ward	4.1	17.5	65.4	*65.4*
1302	Onewhero Ward	0.2	1.0	3.5	*3.5*
1303	Whangamarino Ward	1.3	4.7	12.7	*12.7*
1304	Hukanui-Waerenga Ward	1.6	4.5	9.6	*9.6*
1305	Whaingaroa Ward	1.0	2.5	11.2	*11.2*
1306	Huntly Ward	2.4	6.5	16.6	*16.6*
1307	Ngaruawahia Ward	1.1	4.1	10.1	*10.1*
1308	Newcastle Ward	6.4	25.3	59.7	*59.7*
1309	Raglan Ward	1.6	3.5	6.2	*6.2*
1310	Eureka Ward	2.6	6.5	12.3	*12.3*
1311	Tamahere Ward	0.4	0.9	2.2	*2.2*
TOTAL		22.8	77.1	209.4	*209.4*

4.2.3 Waipa District Future Business Land Demand

As with Waikato District, demand in Waipa is recorded at the Ward level. Over the next 30 years, there is demand for almost 30ha of commercial land, 11ha of retail land and 147ha of industrial land. The majority of land demand is concentrated into and around Cambridge (15ha of commercial, 4.8ha of retail and 72ha of industrial).

Figure 4.10: Waipa Commercial Land Demand

Ward Code	Ward Name	Commercial Demand (Land Ha)			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*
1701	Pirongia Ward	1.4	2.7	4.7	4.7
1702	Cambridge Ward	1.8	6.0	15.1	15.1
1703	Maungatautari Ward	1.0	1.9	3.4	3.4
1704	Te Awamutu Ward	1.1	2.4	5.2	5.2
1705	Kakepuku Ward	0.4	0.9	1.6	1.6
TOTAL		5.7	13.9	29.9	29.9

Figure 4.11: Waipa Retail Land Demand

Ward Code	Ward Name	Retail Demand (ha)			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*
1701	Pirongia Ward	0.6	1.2	2.0	2.0
1702	Cambridge Ward	0.6	2.0	4.8	4.8
1703	Maungatautari Ward	0.5	1.0	1.6	1.6
1704	Te Awamutu Ward	0.5	1.2	2.3	2.3
1705	Kakepuku Ward	0.2	0.4	0.6	0.6
TOTAL		2.5	5.7	11.3	11.3

Figure 4.12: Waipa Industrial Land Demand

Ward Code	Ward Name	Industrial Demand (ha)			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*
1701	Pirongia Ward	5.5	13.8	31.0	31.0
1702	Cambridge Ward	8.9	26.5	71.9	71.9
1703	Maungatautari Ward	0.8	2.0	6.2	6.2
1704	Te Awamutu Ward	5.4	12.0	27.5	27.5
1705	Kakepuku Ward	1.7	4.4	10.5	10.5
TOTAL		22.3	58.6	147.2	147.2

In the short term, the district requires almost 6ha of commercial land, 2.5ha of retail and 22.3ha of industrial. In the medium term this increases to 14ha of commercial, 6ha of retail and 59ha of industrial.

4.3 Future Demand for Urban Business Floorspace

For the majority of retail and commercial sectors, floorspace is a more meaningful metric than land. The nature of floorspace differs between the three broad economic categories as well as discussed below. In total to cater for anticipated economic growth over the next 30 years, the FPP area requires over 3.3 million sqm of gross floor area of build space (GFA). 2.3million sqm of that for the industrial sectors 796,000sqm for commercial activities and 247,000sqm for retail.

Figure 4.13: FPP Total Business Floorspace (GFA) Demand by Broad Sector, 2017-2047 ('000 sqm)

Broad Sector	Hamilton City	Waikato District	Waipa District	Total FPP Area
Commercial	403	204	189	796
Retail	118	67	62	247
Industrial	767	866	648	2,280
Total Vacant Bus. Land	**1,288**	**1,137**	**899**	**3,323**

4.3.1 Hamilton City Future Business Floorspace Demand

Translating economic growth in commercial employment terms into a floorspace requirement to house them results in overall demand of over 402,500sqm of built GFA over the long term. Unsurprisingly the majority of this growth is focused on the CBD (36%). A further 16% arises in the Rotokauri area and 10% in Hamilton East.

Figure 4.14: Hamilton Commercial Space Demand (GFA sqm), Short Medium and Long Term

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term
1	Te Rapa North	638	1,381	4,743
2	Te Rapa	229	7,099	32,570
3	Rotokauri	9,895	30,853	65,352
4	Norton	742	1,483	2,031
5	Dinsdale	-1,658	-412	3,582
6	Temple View	836	2,558	19,721
7	Frankton	2,406	6,274	17,409
8	Glenview	608	724	-3,533
9	Peacocke	632	3,240	6,574
10	Hillcrest	6,095	10,533	13,156
11	Hamilton East	5,531	18,036	40,163
12	Ruakura	1,470	4,482	11,319
13	Chedworth-Fairview Downs	5,452	8,916	9,033
14	Claudelands	-8,414	-20,101	-24,309
15	Chartwell	778	1,462	2,392
16	Rototuna	2,659	7,929	20,539
17	Saint Andrews	665	1,519	2,298
18	Forest Lake	1,341	2,414	2,837
19	CBD	19,045	61,718	143,569
20	Hamilton Lake	4,741	14,719	33,101
Total		**53,689**	**164,829**	**402,548**

Approximately 53,700sqm of GFA is required in the short term and 164,800sqm GFA over the next 10 years.

Retail demand growth sees a requirement to accommodate 118,000sqm GFA over the long term in Hamilton (an increase of 23%). Again, the majority is targeted on the CBD but with large amount focused on Ruakura as well.

Figure 4.15: Hamilton Retail Space Demand (GFA sqm), Short Medium and Long Term

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term
1	Te Rapa North	0	0	1
2	Te Rapa	-2,682	-195	6,670
3	Rotokauri	172	2,293	9,875
4	Norton	301	339	-71
5	Dinsdale	-82	1,345	2,575
6	Temple View	0	0	0
7	Frankton	710	3,018	7,339
8	Glenview	451	611	356
9	Peacocke	0	2	12
10	Hillcrest	698	1,190	1,848
11	Hamilton East	4,325	7,945	10,466
12	Ruakura	12,204	21,784	29,932
13	Chedworth-Fairview Downs	1,606	2,574	2,798
14	Claudelands	6,645	8,349	6,468
15	Chartwell	-28	212	-2,286
16	Rototuna	2,009	3,155	5,503
17	Saint Andrews	-8	-79	-385
18	Forest Lake	2,516	3,257	2,726
19	CBD	1,221	12,025	33,206
20	Hamilton Lake	124	450	1,037
Total		**30,179**	**68,274**	**118,070**

In the short term (next 3 years) there is demand for over 30,000sqm GFA and over 68,200sqm GFA over the next 10 years.

Industrial demand growth translates into over 767,000sqm GFA in the long term. Over 1.3rd of this demand is expected to be focused on Ruakura (258,000sqm) and a further 23% in Rotokauri in the North East. As with the other categories growth diminishes over time. ON average across the next 3 years around 33,800sqm are required each year. That drops to 30,400sqm over the 10 year period and down to 25,600 sqm GFA over the entire 30 year period (Figure 4.16).

Figure 4.16: Hamilton Industrial Space Demand (GFA sqm), Short Medium and Long Term

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term
1	Te Rapa North	-7,760	-6,680	10,700
2	Te Rapa	22,340	56,530	105,530
3	Rotokauri	17,740	73,730	173,080
4	Norton	170	560	1,630
5	Dinsdale	-380	-170	670
6	Temple View	0	0	90
7	Frankton	1,840	28,580	114,790
8	Glenview	650	1,430	2,790
9	Peacocke	10	930	4,010
10	Hillcrest	3,000	4,110	2,830
11	Hamilton East	480	1,410	3,350
12	Ruakura	55,640	117,810	258,400
13	Chedworth-Fairview Downs	210	760	2,180
14	Claudelands	180	380	660
15	Chartwell	10	20	40
16	Rototuna	710	1,480	11,990
17	Saint Andrews	960	2,720	7,120
18	Forest Lake	-70	170	770
19	CBD	290	4,420	24,950
20	Hamilton Lake	5,440	15,600	41,500
Total		**101,460**	**303,790**	**767,080**

4.3.2 Waikato District Future Business Land Demand

Waikato District commercial space demand over the long term is over 204,000sqm GFA. As with land demand, the majority is in the north (Awaroaki-Tuakau ward accounts for around 1/3rd). Solid growth is also observed in Huntly Ngaruawahia and Raglan.

Over the short term the District will require around 18,500sqm GFA while over the medium term this grows to almost 64,000sqm GFA (Figure 4.17).

Figure 4.17: Waikato Commercial Space Demand (GFA sqm), Short Medium and Long Term

Ward Code	Ward Name	Commercial Demand (GFA sqm)			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*
1301	Awaroa ki Tuakau Ward	3,939	17,284	74,315	*74,315*
1302	Onewhero Ward	51	932	3,026	*3,026*
1303	Whangamarino Ward	1,540	5,442	12,896	*12,896*
1304	Hukanui-Waerenga Ward	1,560	5,253	15,362	*15,362*
1305	Whaingaroa Ward	112	1,234	6,136	*6,136*
1306	Huntly Ward	2,403	7,829	24,663	*24,663*
1307	Ngaruawahia Ward	2,144	7,022	20,099	*20,099*
1308	Newcastle Ward	1,901	4,798	15,342	*15,342*
1309	Raglan Ward	3,272	9,008	20,987	*20,987*
1310	Eureka Ward	1,162	4,140	9,005	*9,005*
1311	Tamahere Ward	452	940	2,283	*2,283*
TOTAL		18,535	63,882	204,114	*204,114*

Retail demand in built floorspace terms increases to over 66,800sqm GFA in the long term. As with commercial space, the largest portion is in the North with Tuakau accounting for over 40%. In the short term, Waikato District requires approximately 4,560sqm Retail GFA, or around 1,500sqm annually. This increases to 18,600sqm GFA over 10 years of by 1,860sqm / annum (Figure 4.18).

Figure 4.18: Waikato Retail Space Demand (GFA sqm), Short Medium and Long Term

Ward Code	Ward Name	Retail Demand (GFA sqm)			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*
1301	Awaroa ki Tuakau Ward	698	5,631	27,148	*27,148*
1302	Onewhero Ward	37	211	664	*664*
1303	Whangamarino Ward	405	1,434	3,274	*3,274*
1304	Hukanui-Waerenga Ward	199	609	1,812	*1,812*
1305	Whaingaroa Ward	- 85	206	1,784	*1,784*
1306	Huntly Ward	567	3,245	13,492	*13,492*
1307	Ngaruawahia Ward	463	1,638	5,485	*5,485*
1308	Newcastle Ward	473	1,061	3,385	*3,385*
1309	Raglan Ward	1,396	3,220	6,891	*6,891*
1310	Eureka Ward	240	1,002	1,986	*1,986*
1311	Tamahere Ward	167	333	915	*915*
TOTAL		4,562	18,594	66,834	*66,834*

Figure 4.19: Waikato Industrial Space Demand (GFA sqm), Short Medium and Long Term

Ward Code	Ward Name	Industrial Demand (GFA sqm)			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*
1301	Awaroa ki Tuakau Ward	16,553	70,304	269,767	*269,767*
1302	Onewhero Ward	942	4,159	14,584	*14,584*
1303	Whangamarino Ward	5,543	19,934	53,250	*53,250*
1304	Hukanui-Waerenga Ward	6,709	18,797	39,161	*39,161*
1305	Whaingaroa Ward	4,348	10,600	47,504	*47,504*
1306	Huntly Ward	10,222	27,482	70,231	*70,231*
1307	Ngaruawahia Ward	4,677	17,260	42,422	*42,422*
1308	Newcastle Ward	26,232	103,852	244,909	*244,909*
1309	Raglan Ward	6,633	14,567	25,685	*25,685*
1310	Eureka Ward	11,472	28,339	48,873	*48,873*
1311	Tamahere Ward	1,676	3,842	9,274	*9,274*
TOTAL		95,008	319,138	865,660	*865,660*

Industrial space in Waikato is expected to grow by around 865,700sqm GFA over 30 years. The largest volume is expected in the North (Awaroaki-Tuakau ward with 269,770sqm GFA) and around Newcastle Ward (244,910sqm GFA). Over the next 3 years a little over 95,000sqm GFA is required and this grows to over 319,000sqm GFA over 10 years (Medium term) (Figure 4.19).

4.3.3 Waipa District Future Business Land Demand

Waipa District's commercial space growth is estimated to be 189,000sqm GFA over 30 years. This is dominated by Cambridge and Te Awamutu the 2 largest towns. Growth increases from 15,700sqm in the short term, to over 56,500sqm GFA in the medium term.

Figure 4.20: Waipa Commercial Space Demand (GFA sqm), Short Medium and Long Term

Ward Code	Ward Name	Commercial Demand (GFA sqm)			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*
1701	Pirongia Ward	1,819	6,293	20,972	*20,972*
1702	Cambridge Ward	3,997	16,913	74,888	*74,888*
1703	Maungatautari Ward	214	2,430	7,872	*7,872*
1704	Te Awamutu Ward	7,304	22,982	68,721	*68,721*
1705	Kakepuku Ward	2,364	7,889	16,673	*16,673*
TOTAL		15,698	56,508	189,126	189,126

Retail demand translates into total additional GFA of 61,750sqm over the long term in Waipa. Again, this is dominated by the 2 large centres Cambridge and Te Awamutu. Retail demand in the short term is only a little more than 4,000sqm. This rises to almost 17,200sqm over the medium term.

Figure 4.21: Waipa Retail Space Demand (GFA sqm), Short Medium and Long Term

Ward Code	Ward Name	Retail Demand (GFA sqm)			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*
1701	Pirongia Ward	404	1,447	5,025	5,025
1702	Cambridge Ward	783	5,775	27,360	27,360
1703	Maungatautari Ward	200	768	2,181	2,181
1704	Te Awamutu Ward	1,890	6,859	22,710	22,710
1705	Kakepuku Ward	767	2,338	4,474	4,474
TOTAL		4,044	17,188	61,751	61,751

Finally, industrial demand in Waipa translates to approximately 650,000 sqm GFA over the long term. The majority of this (almost 1/3rd) arises in the Cambridge Ward). Demand in the short term is just under 70,000sqm GFA and almost 216,400sqm GFA in the medium term.

Figure 4.22: Waipa Industrial Space Demand (GFA sqm), Short Medium and Long Term

Ward Code	Ward Name	Industrial Demand (GFA sqm)			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*
1701	Pirongia Ward	6,180	18,885	75,458	75,458
1702	Cambridge Ward	18,695	75,953	296,513	296,513
1703	Maungatautari Ward	3,691	13,325	34,675	34,675
1704	Te Awamutu Ward	24,532	62,428	151,432	151,432
1705	Kakepuku Ward	16,693	45,795	89,568	89,568
TOTAL		69,790	216,386	647,645	647,645

5 Business Land and Floorspace Capacity

Business Land and Floorspace capacity in each district has been identified by applying the provisions in the plan to vacant parcels identified in the rating database and other parcel level land files. This is by definition, the plan enabled capacity as it is the amount of vacant capacity that is directly enabled by the plan. However, the plan does not provide estimates of the amount of land that will be developed and makes no call as to the developability of the capacity identified. The potential for development is discussed through the use of a multi-criteria analysis in Section 6.

5.1 Vacant Land Identified

The RMA 1991 is an enabling Act, which means that as a guiding principle of land use planning, land owners should be enabled to develop their land for the uses they desire. This translates to provisions in district plans being broad - most parcels identified as vacant can meet a relatively wide range of needs. This means that capacity may not be exclusively sheeted back to one usage type or another. In this assessment we have identified the total amount of capacity – regardless of use and the amount available to each of the three broad economic activity types. They may not add to the same total if a piece of land enables both commercial activities and retail activities as will often be the case in town centres, but we make no call as to which activity has precedence[10].

For each of the FPP Councils, vacant land capacity has been identified at the parcel level based on zone-specific rules that dictate the development typologies that may occur. Vacant land parcels were identified using a combination of existing built floor area metrics and improvement values, derived from each of the Council rating databases.

Vacant land on each parcel was categorised into three broad sector types (Commercial, Retail, Industrial), based on the development types allowed within each zone.[11] Figure 5.1 contains the vacant land capacities output from M.E's model[12]. Feedback from each of the Councils (ground truthing) was incorporated where necessary to increase, reduce or remove specific areas from the capacity assessment.

[10] The exception being that we assume that retail activities will outbid commercial activities for ground floor space on the land.

[11] Vacant capacity values across each sector are additive within each individual Territorial Authority. There is no double-counting of vacant areas across the sectors.

[12] Note that the Industrial total for Hamilton City is the long term capacity once all Te Rapa North becomes available.

Figure 5.1: FPP Vacant Business Land by broad sector, 2017 (ha)

Broad Sector	Hamilton City	Waikato District	Waipa District	Total FPP Area
Commercial	643	346	78	1,066
Retail	186	56	70	311
Industrial	697	299	193	1,190
Total Vacant Bus. Land	**1,526**	**700**	**341**	**2,567**

Across the Councils at the TA level, there are significant areas of vacant land with non-residential capacity.

Vacant commercial land capacity within Hamilton City and Waikato District represent large proportions of total vacant business land. Within Hamilton City, the 643 hectares of vacant commercial land represents 42% of the total 1,526 hectares of vacant business capacity. Waikato District's commercial land capacity represents the largest proportion of vacant land capacity within the TA, with 346 hectares (49%) of the 700 hectares of total vacant land capacity. Waipa District's commercial capacity is a much smaller proportion of the total vacant business land capacity, with 78 hectares (23%) of the total 341 hectares.

For all Partners, vacant retail land capacity represents the smallest proportion of total vacant land capacity available in the TA. Hamilton City contains the absolute largest amount of vacant retail land capacity, with 186 hectares (12% of 1,526 ha total). Waikato District contains the smallest total amount of vacant retail land capacity, with 56 hectares (8%) of the 700 hectares total. Retail land in Waipa is a larger proportion of the total land capacity than for the other Partners, with 70 hectares (21%) of the total 341 hectares available for retail development.

Vacant industrial land capacity represents the largest proportion of total vacant capacity in both Hamilton City and Waipa District, with 697 hectares (46% of 1,526 ha total) and 193 hectares (57% of 341 ha total) of industrial capacity respectively. Vacant industrial land capacity within Waikato District is a slightly smaller – but significant – portion of total capacity, with 299 (43%) hectares of the total 700 hectares dedicated to industrial land.

5.2 Plan Enabled Capacity

After identifying vacant land capacity by type, plan enabled gross floor area (GFA) was determined on each parcel based on the attached zoning rules. Rules relating to site coverages, building heights and floor area ratios were used in the calculation of GFA based on the zoning applied to each parcel.

The activity status tables from each of the Councils' District Plans were used to determine the floorspace activity types allowed, which have then been aggregated to the broad business categories used above. Figure 5.2 and Figure 5.3 provide examples of how the activity status table for Business Zones within Hamilton City have been broadly matched to M.E's floorspace types. Permitted, discretionary, and restricted discretionary activities have been incorporated under the assumption that these are essentially allowed under the various District Plans. Both Waikato and Waipa Districts have had similar frameworks

applied, based on rules specific to zoning within their District Plans. Council feedback on the concordance between activity status tables and floorspace types has been supplied to M.E and incorporated into the model.

Figure 5.2: Example of District Plan Activity Table (Hamilton City District Plan)

	Character (for information only)						
	Commercial fringe	Major Event Facilities	Sub-Regional centre	Large Format Retail	Suburban Centre	Neigh bour-hood Centre	Frankton Comm-ercial Fringe
Business Zone	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Buildings							
a) New buildings, alterations and additions	RD*	RD*	RD*	RD*	RD*	RD*	RD*
b) Minor works	P	P	P	P	P	P	P
c) Accessory buildings	RD*	RD*	RD*	RD*	RD*	RD*	RD*
d) Demolition, removal , maintenance or repair of existing buildings (except heritage buildings scheduled in Volume 2, Appendix 8, Schedule 8A: Built Heritage)	P	P	P	P	P	P	P
e) Demolition or removal of existing buildings on Lot 129 DPS 930	-	-	-	-	-	NC	-
Industry							
f) Industrial activity i. excluding light or service industry ii. noxious or offensive activities	D NC	NC NC	NC NC	D NC	NC NC	NC NC	D NC
g) Light industry	RD	D	D	D	D	NC	P
h) Service industry	P	D	P	P	D	D	P
i) Transport depot	RD	D	NC	D	D	NC	RD
j) Emergency service facility	RD*	D	RD*	RD*	RD*	D	RD*
k) Research and innovation activities	P	NC	NC	NC	NC	NC	RD
Offices							
l) Ancillary office	P	P	P	P	P	P	P
m) Offices (excluding offices on land zoned Business 3 on The Base site shown on Figure 6.1b) i. <250m^2 GFA site ii. 250m^2 – 500m2 GFA per site iii. >500m^2 GFA per site whereby site excludes Unit Titles and Cross Leases in i – iii above	P RD* D	P D NC	P D NC	D NC NC	P D NC	D NC NC	NC NC NC

Figure 5.3: Relationship between Space types and Zones

Zone	SubZone	Office-Commercial	Office-Retail	Shops-Commercial	Shops-Retail	Accommodation	Warehouse	Factory	Yard-Commercial	Yard-Industrial	Other Built-Commercial	Other Built-Industrial	Education	Outdoor-Commercial	Outdoor-Industrial	Outdoor-Rural
Business Zone	Business 5 Zone	1	1	1	1	1	1	0	1	1	0	0	1	0	0	0
Business Zone	Business 7 Zone	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
Business Zone	Business 6 Zone	0	0	1	1	0	0	0	0	1	0	0	1	0	0	0
Business Zone	Business 4 Zone	0	1	1	1	1	1	1	1	1	0	0	1	0	0	0
Business Zone	Business 3 Zone	1	1	1	1	1	1	0	1	1	0	0	1	0	0	0
Business Zone	Business 1 Zone	1	1	1	1	1	1	1	0	1	1	0	1	0	0	0
Business Zone	Business 2 Zone	1	1	1	1	1	1	0	0	1	0	0	1	0	0	0
Central City Zone	Precinct 1	1	1	1	1	1	0	0	0	0	1	0	1	0	0	0
Central City Zone	Precinct 2	1	1	1	1	1	1	0	1	1	1	0	1	0	0	0
Central City Zone	Precinct 3	1	1	1	1	1	0	0	0	0	1	0	1	0	0	0

Figure 5.4 contains M.E's estimates of business floorspace capacity on vacant land across the Future Proof Partner councils. Once again, feedback from each of the councils has been incorporated to include, reduce, or remove floorspace on a case-by-case basis where necessary.

Figure 5.4: FPP Vacant Business Capacity (GFA) by broad sector, 2017 ('000 sqm)

Broad Sector	Hamilton City	Waikato District	Waipa District	Total FPP Area
Commercial	16,874	4,415	1,101	22,390
Retail	944	592	552	2,088
Industrial	5,010	2,094	845	7,949
Total	**22,827**	**7,102**	**2,498**	**32,427**

Across the all the Partners, the Commercial sector has the greatest GFA capacity. Within Hamilton City, plan-enabled Commercial GFA represents 16.87 million sqm (74%) of the total 22.83 million sqm enabled. Similarly, plan-enabled Commercial floorspace in Waikato and Waipa Districts represent 4.42 million sqm (62% of the total 7.10 million sqm) and 1.10 million sqm (44% of the total 2.49 million sqm) respectively.

The significant capacities determined for Commercial floorspace are generally a function of the relatively intensive development patterns that Commercial land uses occupy. Land uses as defined in the FPP Capacity Model allow for Commercial occupation of levels above the ground floor. As well as this zones that allow for Commercial land uses often have higher coverage allowances, or floor area ratios (where applicable). Some forms of Commercial land uses may also occupy space in a range of zones, including some mixed usage zones. These factors combined mean that plan enabled Commercial capacity represents a much larger proportion of total enabled capacity than the vacant land capacity (from Section 5.1, above) would imply.

Retail floorspace capacity across the TAs represents the smallest proportion of total floorspace capacity in all cases. Retail floorspace capacity within Hamilton City represents 0.94 million sqm (4% of the total 22.83 million sqm), 0.59 million sqm (8% of the total 7.10 million sqm) in Waikato District, and 0.552 million sqm (22% of the total 2.49 million sqm) in Waipa District. Where Retail floorspace activities are permitted, they have been given primacy for ground floor occupation over all other land use types. This assumption has been made to reflect the likely development patterns, where Retail development is likely to outcompete other land uses on the ground floor.

Vacant plan enabled Industrial floorspace within Hamilton City represents 5.01 million (22%) of the total 22.83 million sqm enabled within the TA. Industrial floorspace capacity in the Waikato District totals 2.09 million sqm (29%) of the 7.10 million sqm enabled. Vacant Industrial capacity in the Waipa District equates to 0.85 million sqm, or 34% of the total 2.50 million sqm of business capacity in the area. Hamilton City has a comparatively large volume of Industrial floorspace capacity due to future industrial/greenfields areas such as Horotiu, Te Rapa, and the Ruakura Inland Port.

5.3 Discussion

5.3.1 Limitations

One of the key possible limitations in the identification of vacant land is the currency of the Rating Databases provided to M.E by each of the Councils. Due to the nature of these as a snapshot in time, there is the potential for key indicators of vacancy (e.g. improvement values, built floor area) to be out of date. This may cause the model to identify vacant capacity where none actually exists. Although calibrating with GIS building footprints may help with this, in some cases the GIS data too is non-representative due to age. To help remedy this limitation, some local knowledge has been supplied by the Councils relating to occupied sites, or sites with consents issued that may reduce or set capacity for the future. This knowledge has been incorporated in where applicable.

5.3.2 Cross over with Housing Capacity

The results presented above provide an indication of what the Business capacity is across the Future Proof Partner network, if all vacant business-zoned land was occupied by business activities. There is, however, an issue in some specific mixed use type zones where both residential and business land activities could occur.

In zones such as the City Centre Zone in Hamilton City, residential and (primarily) commercial land uses may occupy the same vacant sites. The issue does not impact upon retail capacity in these zones, as both the Business Capacity and Residential Capacity models recognise the primacy of retail uses on ground floors in mixed use zones such as these. What this does mean is that competition for upper-floor space could alter the actual developments types into the future. Although the issue does not reflect the plan-enabled capacity in a strictly quantitative sense (in terms of applying the zone rules), it is worth noting the potential double-counting that might occur.

5.3.3 Unoccupied Premises

When undertaking some ground truthing checks across the Future Proof Partners, it was noted that there exist some developed – but unoccupied – premises. The FPP Business Capacity Model does not take these unoccupied premises into account in terms of capacity, due to the difficulty required to isolate these sites and distinguish them from other developed (but occupied) sites. Adding to this, the number and size of unoccupied premises are often in flux, with occupation and relocation of businesses. This essentially means that there may be some extra capacity available for some less-specialised industries to occupy, but these are unable to be modelled effectively.

By excluding this from the assessment, the report presents a conservative picture with respect to capacity.

5.3.4 Redevelopment Capacity

There will be additional capacity available through the redevelopment process. Redevelopment occurs when a piece of already occupied land is purchased and additional development occurs to either change its usage, or to increase the amount of use that is made of it currently.

One way to estimate the amount of additional capacity potentially available in an area is to look at the average level of development intensity (number of storeys or floor area ratios) achieved across the entire area, then look at the level of intensity on sites that are significantly lower than the average. These may be sites that have redevelopment potential to bring them closer to the revealed development intensity of the balance of the area.

This can be done across commercial centres and industrial areas. However, there are issues with redevelopment capacity that arise when the type and nature of business land use is not taken into consideration. For example, it may be that through an analysis of an industrial area, a number of seemingly under utilised sites are identified that may represent capacity. However, they may exist as important parts of the production process either as turning bays for trucks or as storage areas for completed or partially completed goods.

In this study we have adopted a conservative stance and have assumed that the only capacity that is truly available is **vacant capacity**. This is an area that could be investigated further by Councils wishing to understand the depth of true capacity within the FPP area.

If the FPP area proves to have provided for sufficient capacity by simply providing for vacant capacity, then redevelopment capacity is not required. The amount of redevelopment capacity that is taken up over the short medium and long term will obviously have an effect on the take up of vacant capacity.

We recommend Council monitor this.

5.3.5 Capacity in Rural Environment

Given the nature of the NPS-UDC, M.E has only modelled business capacity in primarily urban environments and urban-type zones. Although the FPP-BCM does incorporate greenfield development where information is available, these greenfields are often within or adjacent to the urban environment and have specified activities associated. The FPP-BCM does not take into account other areas of the Rural Environment that could potentially enable capacity of some business activities, especially outdoor industrial activities or similar. Rural zones could potentially support a significant level of capacity, especially within Waikato and Waipa District Councils where the Rural zones are extensive. Although the exact capacity has not been modelled in these zones, it should be noted that the potential capacity for (currently) non-complying business activities may be high.

We recommend council monitor the growth of non rural industrial activities in rural locations by type and location

6 Development Feasibility

The approach described above focuses on establishing plan-enabled capacity. That is, the amount of theoretical capacity that arises by way of the plans zoning and other provisions. This volume of capacity may not translate to actual business properties available to accommodate growth unless it is "feasible" to develop. The NPS-UDC defines "feasible" as follows:

> *Feasible means that development is commercially viable, taking into account the current likely costs, revenue and yield of developing; and feasibility has a corresponding meaning.*

The intent of this definition is that local authorities assess whether development capacity is feasible to a developer. The definition refers to the costs and revenue that would be faced by a developer, to develop capacity that is enabled by a plan and supported by public infrastructure.

This cost and revenue based approach for residential development is relatively simple, in that the numbers of development options for a residential developer are usually relatively small – as are the ownership options. This means development feasibility can usually be determined with a simple residual value type development model. This type of model starts with the anticipated final sale price and deducts all the costs associated with development – including a developers margin. The difference then between the final sale price and all of the developers costs is the amount the developer can pay for the land and remain viable.

IF the land is priced higher than that, then the development is not feasible and won't be developed – regardless of the zoning.

For business land, the situation is far more complex. The type and nature of business development is far more varied than residential – retail and commercial clients have a wide range of development types that might be suitable for a piece of land, each with different build costs, ownership types and developer margins. Industrial land may be developed in a bespoke manner by a particular manufacturer that may wish a purpose built plant and plan to operate it for as long as the business is viable. This type of developer may be able to amortise costs across a very long timeframe, so is motivated very differently from a developer looking to build more generic tilt slab industrial units for rapid sale.

Because of these complexities a residual land value type model is not appropriate for business land assessments. Multi-Criteria Analysis provides a way for Councils to frame the development opportunities within their district by scoring them against a set of agreed criteria. Each criteria plays a large of small role in the development and locational decision, so is given a large or small share of the total area score.

Each broad area is then scored against the criteria and the rating s added up to provide an overall score out of 100. Comparisons can then be made between where the plan enabled capacity resides and the MCA score for those areas. If capacity is provided in the areas that score highly in the MCA, Council can be confident that development will proceed. However, if capacity is clustered in areas that score poorly on the MCA process, they may find businesses do not develop that land, and pressure will be brought to bear on other land. This may lead to unintended consequences.

Once all areas have been coded and scored, the results can be placed alongside capacity to highlight any mismatches between plan enabled capacity and the areas that are most desirable to be developed.

6.1 Multi Criteria Framework Analysis

The MCA approach has been used because it allows council and other stakeholders to identify the key metrics that are important in the selection and development process for the land. The following tables present results that draw from both the stakeholder workshop plus longer term studies ME have carried out across industrial and commercial areas in other locations.

Figure 6.1: Retail Criteria, Weighting and FPP Area Scores, 2017

		1 to 10	1 to 10	1 to 15	1 to 15	1 to 5	1 to 10	1 to 15	1 to 5	1 to 5	1 to 5	1 to 5	Total Score	
		10	10	15	15	5	10	5	5	5	5	5	90	
TA	Area	Access to major Road / transport routes; good transport access, especially road/motorway	Proximity to market - households within 5km	Co-location or clustering with associated business activities - Retail Centre	Parking availability	Proximity to market - households within 5km - 10km	Proximity to labour	Proximity to market - tourist accommodation within 1km	Low level of traffic congestion in vacinity	Exposure / profile / visibility	Existing or proposed public transport	Access to complementary / supporting business services	TOTAL (out of 90)	Adjusted to 100%
Hamilton	Te Rapa North	10	10	1	2	5	10	1	5	4	4	5	57	63
Hamilton	Te Rapa	10	10	12	15	5	10	2	2	5	4	5	80	89
Hamilton	Rotokauri	10	10	1	10	5	10	1	4	5	4	5	65	72
Hamilton	Norton	8	10	2	10	5	10	1	3	3	4	5	61	68
Hamilton	Dinsdale	5	9	5	10	5	9	1	3	3	4	5	59	66
Hamilton	Temple View	3	9	1	10	5	9	1	4	3	4	5	54	60
Hamilton	Frankton	4	9	10	10	5	9	2	3	3	4	5	64	71
Hamilton	Glenview	8	9	5	10	5	9	1	3	3	4	5	62	69
Hamilton	Peacocke	8	9	1	10	5	9	1	4	3	4	5	59	66
Hamilton	Hillcrest	4	9	6	10	5	9	1	4	3	4	5	60	67
Hamilton	Hamilton East	5	9	10	10	5	9	3	3	3	4	5	66	73
Hamilton	Ruakura	10	9	1	10	5	9	1	5	4	4	5	63	70
Hamilton	Chedworth-Fairview Downs	8	10	3	10	5	10	2	4	3	4	5	64	71
Hamilton	Claudelands	5	10	2	10	5	10	1	1	3	4	5	56	62
Hamilton	Chartwell	6	10	10	10	5	10	1	4	3	4	5	68	76
Hamilton	Rototuna	6	10	6	10	5	10	1	5	2	4	5	64	71
Hamilton	Saint Andrews	5	10	1	10	5	10	1	2	3	4	5	56	62
Hamilton	Forest Lake	6	10	2	10	5	10	2	1	3	4	5	58	64
Hamilton	CBD	6	9	15	15	5	9	5	1	5	4	5	79	88
Hamilton	Hamilton Lake	5	9	3	10	5	9	2	1	2	4	5	55	61
Waikato	Huntly	9	4	4	15	3	4	2	4	5	2	3	55	61
Waikato	Horotiu	9	1	1	5	3	1	1	5	3	3	3	35	39
Waikato	Ngaruawahia	6	4	2	12	2	4	1	5	2	3	3	44	49
Waikato	Pokeno	9	3	1	15	3	3	1	5	4	2	1	47	52
Waikato	Tuakau	6	4	2	10	3	4	1	4	3	3	2	42	47
Waikato	Meremere	9	1	1	10	1	1	1	5	4	1	1	35	39
Waikato	Raglan	3	3	3	10	2	3	3	4	1	1	2	35	39
Waikato	Te Kauwhata	3	2	1	10	2	2	1	4	1	1	2	29	32
Waipa	Airport	6	2	1	15	3	2	2	4	3	2	3	43	48
Waipa	Cambridge	8	6	11	10	4	6	2	3	3	2	4	59	66
Waipa	Te Awamutu	5	5	11	10	4	5	1	3	3	2	4	53	59

Figure 6.2: Industrial Criteria, Weighting and FPP Area Scores, 2017

		1 to 20	1 to 20	1 to 15	1 to 20	1 to 10	1 to 10	1 to 5	1 to 5	1 to 10	1 to 5	TOTAL Score	
		20	10	15	15	10	20	5	10	5	5	115	
TA	Area	Access to major Road / transport routes; good transport access, especially road/motorway	Flat land, large land parcel (minimum size??) contiguous site	Service Infrastructure in place or proposed	Area has potential for co-location or clustering with associated business activities or is contiguous with existing business land zoned for industrial activities	Proximity to labour	Ability to buffer adverse effects from residential and sensitive activities, distance from sensitive land uses	Low level of traffic congestion in vacinity	Exposure / profile / visibility	Existing or proposed public transport	Access to complementary / supporting business services	TOTAL Score (out of 115)	TOTAL (out of 100)
Hamilton	Te Rapa North	20	10	8	8	10	20	5	8	4	5	98	85
Hamilton	Te Rapa	19	9	12	15	10	20	2	9	4	5	105	91
Hamilton	Rotokauri	20	10	11	10	10	20	4	9	4	5	103	89
Hamilton	Norton	15	6	14	4	10	5	3	6	4	5	72	62
Hamilton	Dinsdale	10	5	15	5	9	5	3	5	4	5	66	57
Hamilton	Temple View	5	8	6	1	9	10	4	5	4	5	57	50
Hamilton	Frankton	8	6	15	13	9	20	3	5	4	5	88	77
Hamilton	Glenview	15	6	15	4	9	5	3	5	4	5	71	62
Hamilton	Peacocke	15	8	11	1	9	5	4	6	4	5	68	59
Hamilton	Hillcrest	7	6	14	5	9	5	4	5	4	5	64	55
Hamilton	Hamilton East	9	4	15	7	9	5	3	6	4	5	67	58
Hamilton	Ruakura	19	10	11	2	9	20	5	7	4	5	92	80
Hamilton	Chedworth-Fairview Downs	15	6	14	3	10	5	4	6	4	5	72	62
Hamilton	Claudelands	10	4	15	3	10	5	1	6	4	5	63	55
Hamilton	Chartwell	12	5	15	4	10	5	4	5	4	5	69	60
Hamilton	Rototuna	12	8	12	8	10	5	5	4	4	5	73	63
Hamilton	Saint Andrews	10	6	15	5	10	5	2	5	4	5	67	58
Hamilton	Forest Lake	11	4	15	4	10	6	1	6	4	5	66	57
Hamilton	CBD	12	2	15	10	9	5	1	8	4	5	71	62
Hamilton	Hamilton Lake	10	4	15	10	9	5	1	4	4	5	67	58
Waikato	Huntly	18	8	8	9	4	20	4	9	2	3	85	73
Waikato	Horotiu	18	10	8	9	1	20	5	6	3	3	83	72
Waikato	Ngaruawahia	12	4	11	2	4	15	5	3	3	3	62	53
Waikato	Pokeno	18	8	10	4	3	18	5	7	2	1	76	66
Waikato	Tuakau	12	8	10	5	4	15	4	5	3	2	68	59
Waikato	Meremere	18	6	5	3	1	20	5	7	1	1	67	58
Waikato	Raglan	5	3	6	3	3	10	4	2	1	2	39	34
Waikato	Te Kauwhata	6	4	8	4	2	15	4	2	1	2	48	41
Waipa	Airport	12	6	9	8	2	15	4	6	2	3	67	58
Waipa	Cambridge	15	6	14	10	6	15	3	6	2	4	81	70
Waipa	Te Awamutu	10	6	14	10	5	15	3	5	2	4	74	64

Figure 6.3: Commercial Criteria, Weighting and FPP Area Scores, 2017

		1 to 10	1 to 10	1 to 5	1 to 15	1 to 15	1 to 10	1 to 5	1 to 5	1 to 10	1 to 10	1 to 5	TOTAL
		10	10	5	15	15	10	5	5	10	10	5	100
TA	Area	Access to major Road / transport routes; good transport access, especially road/motorway	Proximity to market - households within 5km	Exposure / profile / visibility	Co-location or clustering with associated business activities - Retail Centre	Parking availability	Proximity to labour	Low level of traffic congestion in vacinity	Existing or proposed public transport	Access to complementary / supporting business services	Secure infrastructure - high speed fibre, power etc.	Diversity of Space types	Total
Hamilton	Te Rapa North	10	6	4	1	12	10	5	4	1	5	3	61
Hamilton	Te Rapa	10	7	5	10	15	10	2	4	7	8	5	83
Hamilton	Rotokauri	10	7	5	4	15	10	4	4	2	7	5	73
Hamilton	Norton	8	8	3	2	7	10	3	4	2	9	2	58
Hamilton	Dinsdale	5	8	3	2	7	9	3	4	2	10	2	55
Hamilton	Temple View	3	6	3	1	7	9	4	4	1	5	2	45
Hamilton	Frankton	4	9	3	9	7	9	3	4	6	10	2	66
Hamilton	Glenview	8	9	3	2	7	9	3	4	2	10	2	59
Hamilton	Peacocke	8	8	3	1	7	9	4	4	1	7	2	54
Hamilton	Hillcrest	4	8	3	5	7	9	4	4	3	9	2	58
Hamilton	Hamilton East	5	9	3	9	7	9	3	4	6	10	2	67
Hamilton	Ruakura	10	8	4	5	15	9	5	4	3	7	5	75
Hamilton	Chedworth-Fairview Downs	8	8	3	4	7	10	4	4	2	9	2	61
Hamilton	Claudelands	5	10	3	3	7	10	1	4	2	10	5	60
Hamilton	Chartwell	6	8	3	5	7	10	4	4	3	10	2	62
Hamilton	Rototuna	6	7	2	5	7	10	5	4	3	8	2	59
Hamilton	Saint Andrews	5	8	3	6	7	10	2	4	3	10	2	60
Hamilton	Forest Lake	6	10	3	3	7	10	1	4	2	10	5	61
Hamilton	CBD	8	10	4	15	13	9	1	4	10	10	5	89
Hamilton	Hamilton Lake	5	9	2	7	7	9	1	4	4	10	3	61
Waikato	Huntly	9	3	5	5	10	4	4	2	3	5	1	51
Waikato	Horotiu	9	1	3	2	10	1	5	3	2	5	1	42
Waikato	Ngaruawahia	6	2	2	3	10	4	5	3	2	7	1	45
Waikato	Pokeno	9	1	4	1	10	3	5	2	1	7	1	44
Waikato	Tuakau	6	3	3	3	10	4	4	3	2	5	2	45
Waikato	Meremere	9	1	4	1	10	1	5	1	1	3	1	37
Waikato	Raglan	3	2	1	3	8	3	4	1	2	5	2	34
Waikato	Te Kauwhata	3	1	1	2	10	2	4	1	1	5	1	31
Waipa	Airport	6	1	3	3	12	2	4	2	2	5	2	42
Waipa	Cambridge	8	5	3	9	10	6	3	2	5	9	4	64
Waipa	Te Awamutu	5	5	3	9	10	5	3	2	5	9	4	60

7 Sufficiency of Capacity

In this section the results of the demand and capacity assessments are brought together to provide a quantitative comparison between them in order to determine the sufficiency of capacity provided for in the FPP area. The NPS-UDC policy PA1 requires local authorities to ensure that "*at any one time there is sufficient development capacity*". That means that the land is zoned and feasible for the next 10 years and has been identified in the various plans and strategic documents over the next 30 years.

In this section results are presented in two forms. First, capacity is set against demand estimates in the short, medium and long term to present a picture of sufficiency. Second, demand estimates have been increased by 20% in the short and medium terms and by 15% in the long terms to meet the requirements of PC1, which states;

> *"To factor in the proportion of feasible development capacity that may not be developed, in addition to the requirement to ensure sufficient feasible development capacity as outlined in policy PA!, local authorities shall also provide an additional margin of feasible development capacity over and above projected demand of at least;*
>
> - *20% in the short and medium terms, and*
> - *15% in the long term."*

In most, if not all cases, local authorities have provided sufficient business land capacity to exceed the requirements at the city- wide level over the 10 year period. Most have ample supply for the full 30 year period available today. This tends to make the 20% buffer redundant, however it is presented here for completeness.

7.1 Hamilton Area Results

This section presents compares the results of the demand and capacity modelling together across the Hamilton City spatial framework. Results are presented for both land and floor space for each council, across the three broad economic sector types.

It is important to note that for land areas that are enabled for both commercial and retail activities the total has been split between the two categories. To a certain extent, this means that demand and supply for these should be read together, as there is no way of knowing what type of activity will actually occupy the land (at this distance). It is also the case that if either retail or commercial demand exceeds the amount of land allocated, there is the potential for competing land uses to either drive up prices or for the land to be dominated by the activity that can pay the most for the land. In addition, pressure is brought to bear on other land types (Industrial in particular and residential).

While this is the market operating in a normal manner and potentially leads to efficient outcomes, it may also have unintended consequences due to not all costs being captured in the price developers pay for the land. We highly recommend Council monitor this situation – should it arise.

Figure 7.1 shows that Hamilton has around 643ha of land zoned and available for Commercial development today (Commercial type development as defined above). Figure 7.2, shows that on this land over 16.8 million sqm of GFA could potentially be constructed.

Given that in the long term some 87ha of land which translates into 402,500sqm of GFA is required, there is a **significant surplus**. However, demand is lumpy and supply is concentrated into a few distinct areas (Rotokauri, Ruakura and Te Rapa are the largest and between them account for 87% of supply), local shortfalls may occur. They are indicated in Figure 7.1 in red with the word Insufficient in either the short, medium or long term.

Commercial activities are relatively foot loose, in that they are less tied to a single location, this means that capacity provided in other areas is likely to be suitable to meet the majority of needs.

Figure 7.1: Hamilton City Commercial Land Sufficiency Summary (ha)

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term	Total Vacant Land (ha)	Short Term	Medium Term	Long Term
1	Te Rapa North	1.4	3.1	10.2	-	Insufficient	Insufficient	Insufficient
2	Te Rapa	0.2	4.0	4.8	45.7			
3	Rotokauri	4.7	21.1	24.4	190.2			
4	Norton	0.1	0.3	0.3	0.1		Insufficient	Insufficient
5	Dinsdale	-0.6	0.7	1.0	3.0			
6	Temple View	1.1	5.9	6.8	17.3			
7	Frankton	0.2	0.7	0.8	15.8			
8	Glenview	0.7	1.0	1.0	0.4	Insufficient	Insufficient	Insufficient
9	Peacocke	1.3	13.9	16.4	0.7	Insufficient	Insufficient	Insufficient
10	Hillcrest	0.9	1.5	1.7	1.7			
11	Hamilton East	0.9	5.2	6.0	2.4		Insufficient	Insufficient
12	Ruakura	-1.1	-0.9	-0.8	325.2			
13	Chedworth-Fairview Downs	3.9	4.3	4.4	1.0	Insufficient	Insufficient	Insufficient
14	Claudelands	-1.4	-6.6	-7.7	1.2			
15	Chartwell	0.2	0.6	0.7	0.1	Insufficient	Insufficient	Insufficient
16	Rototuna	0.3	6.0	7.1	18.6			
17	Saint Andrews	0.1	0.2	0.2	0.1	Insufficient	Insufficient	Insufficient
18	Forest Lake	0.3	0.9	1.0	0.3	Insufficient	Insufficient	Insufficient
19	CBD	1.1	4.8	5.5	8.0			
20	Hamilton Lake	0.5	2.5	2.9	10.8			
Total		**15.0**	**69.1**	**86.7**	**642.7**			

Figure 7.2: Hamilton City Commercial Space Sufficiency Summary (GFA)

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term	Total GFA Capacity (sqm)	Short Term	Medium Term	Long Term
1	Te Rapa North	638	1,381	4,743	-	Insufficient	Insufficient	Insufficient
2	Te Rapa	229	7,099	32,570	201,459			
3	Rotokauri	9,895	30,853	65,352	2,220,046			
4	Norton	742	1,483	2,031	181	Insufficient	Insufficient	Insufficient
5	Dinsdale	-1,658	-412	3,582	15,460			
6	Temple View	836	2,558	19,721	258,913			
7	Frankton	2,406	6,274	17,409	54,798			
8	Glenview	608	724	-3,533	836			
9	Peacocke	632	3,240	6,574	17,638			
10	Hillcrest	6,095	10,533	13,156	2,307	Insufficient	Insufficient	Insufficient
11	Hamilton East	5,531	18,036	40,163	21,784			Insufficient
12	Ruakura	1,470	4,482	11,319	13,379,908			
13	Chedworth-Fairview Downs	5,452	8,916	9,033	12,444			
14	Claudelands	-8,414	-20,101	-24,309	41,507			
15	Chartwell	778	1,462	2,392	1,289		Insufficient	Insufficient
16	Rototuna	2,659	7,929	20,539	367,456			
17	Saint Andrews	665	1,519	2,298	286	Insufficient	Insufficient	Insufficient
18	Forest Lake	1,341	2,414	2,837	2,648			Insufficient
19	CBD	19,045	61,718	143,569	227,194			
20	Hamilton Lake	4,741	14,719	33,101	47,589			
Total		**53,689**	**164,829**	**402,548**	**16,873,743**			

Plan enabled Retail capacity sits at just under 186ha of land. On this could be developed approximately 943,530sqm retail GFA. However, the demand models indicate that only around 36ha of retail land accommodating 118,000sqm GFA are likely to be required in the long run.

As with the Commercial, Hamilton's plan provisions significantly over provide for retail development in the short, medium and long term – in total. Retail is a little different from commercial in that there is a portion of retail that needs to sit locally with residential areas. It is not as foot loose as commercial activities.

Figure 7.3: Hamilton City Retail Land Sufficiency Summary (ha)

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term	Total Vacant Land (ha)	Short Term	Medium Term	Long Term
1	Te Rapa North	0.0	0.0	0.0	-	Insufficient	Insufficient	Insufficient
2	Te Rapa	-0.6	0.0	1.7	8.4			
3	Rotokauri	0.0	0.7	3.0	83.5			
4	Norton	0.1	0.1	0.0	-	Insufficient	Insufficient	
5	Dinsdale	-0.1	0.3	0.7	0.1		Insufficient	Insufficient
6	Temple View	0.0	0.0	0.0	17.3			
7	Frankton	0.1	0.6	1.8	1.7			Insufficient
8	Glenview	0.1	0.2	0.1	0.0	Insufficient	Insufficient	Insufficient
9	Peacocke	0.0	0.0	0.0	0.7			
10	Hillcrest	0.1	0.3	0.4	0.0	Insufficient	Insufficient	Insufficient
11	Hamilton East	1.2	2.2	2.9	0.8	Insufficient	Insufficient	Insufficient
12	Ruakura	1.6	9.3	16.3	52.1			
13	Chedworth-Fairview Downs	0.5	0.8	0.9	0.6		Insufficient	Insufficient
14	Claudelands	1.6	2.0	1.5	1.2	Insufficient	Insufficient	Insufficient
15	Chartwell	0.0	0.1	-0.4	0.1		Insufficient	
16	Rototuna	0.7	1.0	1.4	11.2			
17	Saint Andrews	0.0	0.0	-0.1	0.0			
18	Forest Lake	0.5	0.7	0.6	0.1	Insufficient	Insufficient	Insufficient
19	CBD	0.2	1.7	5.2	7.4			
20	Hamilton Lake	0.0	0.2	0.4	0.5			
Total		**6.2**	**20.1**	**36.3**	**185.8**			

Figure 7.4: Hamilton City Retail Space Sufficiency Summary (GFA)

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term	Total GFA (sqm)	Short Term	Medium Term	Long Term
1	Te Rapa North	0	0	1	-	Insufficient	Insufficient	Insufficient
2	Te Rapa	-2,682	-195	6,670	62,639			
3	Rotokauri	172	2,293	9,875	417,317			
4	Norton	301	339	-71	-	Insufficient	Insufficient	
5	Dinsdale	-82	1,345	2,575	496		Insufficient	Insufficient
6	Temple View	0	0	0	86,304			
7	Frankton	710	3,018	7,339	6,563			Insufficient
8	Glenview	451	611	356	139	Insufficient	Insufficient	Insufficient
9	Peacocke	0	2	12	3,528			
10	Hillcrest	698	1,190	1,848	71	Insufficient	Insufficient	Insufficient
11	Hamilton East	4,325	7,945	10,466	2,951	Insufficient	Insufficient	Insufficient
12	Ruakura	12,204	21,784	29,932	260,525			
13	Chedworth-Fairview Downs	1,606	2,574	2,798	1,969		Insufficient	Insufficient
14	Claudelands	6,645	8,349	6,468	7,327		Insufficient	
15	Chartwell	-28	212	-2,286	215			
16	Rototuna	2,009	3,155	5,503	54,337			
17	Saint Andrews	-8	-79	-385	74			
18	Forest Lake	2,516	3,257	2,726	308	Insufficient	Insufficient	Insufficient
19	CBD	1,221	12,025	33,206	36,826			
20	Hamilton Lake	124	450	1,037	1,931			
Total		**30,179**	**68,274**	**118,070**	**943,519**			

We note that there are some areas where no capacity exists, yet demand is strong (Hillcrest, Glenview, Forest Lake – even Hamilton East). We recommend that Council monitor these areas to ensure households are able to meet their retail needs in an efficient manner.

Hamilton's Industrial land supply is unevenly distributed. Some 90% of vacant industrial land occurs in 3 areas (Te Rapa North, Rotokauri and Ruakura). This is often the way in cities that have identified clear areas where industrial activities are able to locate. This is efficient and ensures any potential emissions and their negative impacts can be minimised. Note that there are 3 values for capacity at Te Rapa North. This is due to provisions in the 2015 LTP that limit capacity to 14ha in the short term increasing to 56ha after 2021.

Figure 7.5: Hamilton City Industrial Land Sufficiency Summary (ha)

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term	Vacant Land Short term (ha)	Vacant Land Medium term (ha)	Vacant Land Long term (ha)	Short Term	Medium Term	Long Term
1	Te Rapa North	-2.3	-2.1	-0.9	14.0	56.0	193.6			
2	Te Rapa	6.5	15.9	25.4	42.5	42.5	42.5			
3	Rotokauri	47.2	175.7	243.1	106.8	106.8	106.8		Insufficient	Insufficient
4	Norton	5.9	35.9	65.6	0.1	0.1	0.1	Insufficient	Insufficient	Insufficient
5	Dinsdale	1.2	3.3	5.1	2.3	2.3	2.3		Insufficient	Insufficient
6	Temple View	0.1	0.6	4.1	-	-	-	Insufficient	Insufficient	Insufficient
7	Frankton	0.4	6.7	23.5	13.9	13.9	13.9			Insufficient
8	Glenview	6.3	22.2	73.2	0.3	0.3	0.3	Insufficient	Insufficient	Insufficient
9	Peacocke	0.0	1.0	3.3	-	-	-	Insufficient	Insufficient	Insufficient
10	Hillcrest	8.1	11.3	13.7	1.7	1.7	1.7	Insufficient	Insufficient	Insufficient
11	Hamilton East	0.0	1.2	4.5	1.3	1.3	1.3			Insufficient
12	Ruakura	4.9	4.5	14.2	325.2	325.2	325.2			
13	Chedworth-Fairview Downs	0.5	0.8	1.3	0.4	0.4	0.4	Insufficient	Insufficient	Insufficient
14	Claudelands	-0.1	0.2	2.5	-	-	-		Insufficient	Insufficient
15	Chartwell	2.3	1.9	-4.4	-	-	-	Insufficient	Insufficient	
16	Rototuna	10.6	14.0	14.9	-	-	-	Insufficient	Insufficient	Insufficient
17	Saint Andrews	9.7	10.0	10.7	0.1	0.1	0.1	Insufficient	Insufficient	Insufficient
18	Forest Lake	0.1	0.3	1.1	0.1	0.1	0.1	Insufficient	Insufficient	Insufficient
19	CBD	0.3	1.7	5.7	-	-	-	Insufficient	Insufficient	Insufficient
20	Hamilton Lake	8.4	12.9	17.7	9.1	9.1	9.1		Insufficient	Insufficient
Total		**110.1**	**318.0**	**524.4**	**517.8**	**559.8**	**697.4**			

We have assumed that the maximum capacity will be available in the Long term. The restrictions are related to the provision of infrastructure (water and wastewater). However, if a developer comes forward and covers the costs of all infrastructure services prior to provision by Council, they will be able to develop. Capacity in the headworks (water treatment plants and water supply services are sufficient to cater for all growth in the long term).

Figure 7.6: Hamilton City Industrial Space Sufficiency Summary (GFA)

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term	Total GFA Short Term (sqm)	Total GFA Medium Term (sqm)	Total GFA Long Term (sqm)	Short Term	Medium Term	Long Term
1	Te Rapa North	-7,760	-6,680	10,700	112,043	448,174	1,549,576			
2	Te Rapa	22,340	56,530	105,530	249,279	249,279	249,279			
3	Rotokauri	17,740	73,730	173,080	667,292	667,292	667,292			
4	Norton	170	560	1,630	903	903	903			Insufficient
5	Dinsdale	-380	-170	670	14,506	14,506	14,506			
6	Temple View	0	0	90	-	-	-			Insufficient
7	Frankton	1,840	28,580	114,790	87,119	87,119	87,119			Insufficient
8	Glenview	650	1,430	2,790	2,097	2,097	2,097			Insufficient
9	Peacocke	10	930	4,010	-	-	-	Insufficient	Insufficient	Insufficient
10	Hillcrest	3,000	4,110	2,830	10,470	10,470	10,470			
11	Hamilton East	480	1,410	3,350	7,917	7,917	7,917			
12	Ruakura	55,640	117,810	258,400	2,360,247	2,360,247	2,360,247			
13	Chedworth-Fairview Downs	210	760	2,180	2,581	2,581	2,581			
14	Claudelands	180	380	660	-	-	-	Insufficient	Insufficient	Insufficient
15	Chartwell	10	20	40	-	-	-	Insufficient	Insufficient	Insufficient
16	Rototuna	710	1,480	11,990	-	-	-	Insufficient	Insufficient	Insufficient
17	Saint Andrews	960	2,720	7,120	316	316	316	Insufficient	Insufficient	Insufficient
18	Forest Lake	-70	170	770	633	633	633			Insufficient
19	CBD	290	4,420	24,950	-	-	-	Insufficient	Insufficient	Insufficient
20	Hamilton Lake	5,440	15,600	41,500	56,915	56,915	56,915			
Total		**101,460**	**303,790**	**767,080**	**3,572,320**	**3,908,450**	**5,009,853**			

The industrial space available to be developed on the land is significantly more than demand requires. Demand grows from 101,460sqm GFA to 767,080sqm GFA over the long term. This compares with capacity of 3,572,000sqm GFA in the short term to over 5,000,000sqm GFA in the long term.

What is important is that the areas identified as being "industrial development areas" are protected from encroachment by other uses (notable large format retail). In Hamilton the difference between demand and supply in the long run is much less for industrial land than for either retail or commercial. Demand is expected to require 524 ha of land in the long term. Hamilton City has 697ha of industrial land currently identified and zoned. Demand in the long term accounts for 75% of capacity – the closest gap of the three land use types.

7.2 Waikato Area Results

In Waikato District there is approximately 346ha of plan enabled Commercial business land that could potentially accommodate over 4.4 million sqm of commercial GFA (Figure 7.7and Figure 7.8). The amount of plan enabled supply greatly exceeds demand over the long term. IN total 33.5ha of land are estimated to be required over 30 years or 216,900sqm of GFA. This is less than 10% of the available land capacity.

Waikato District has sufficient commercial capacity for almost any development future.

Figure 7.7: Waikato District Commercial Land Sufficiency Summary (ha)

Ward Code	Ward Name	Commercial Demand (Land Ha)					Commercial Land Sufficency		
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (ha)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30
1301	Awaroa ki Tuakau Ward	0.7	2.8	11.9	*11.9*	142.9			
1302	Onewhero Ward	0.0	0.2	0.5	*0.5*	-	Insufficient	Insufficient	Insufficient
1303	Whangamarino Ward	0.3	0.9	2.2	*2.2*	51.5			
1304	Hukanui-Waerenga Ward	0.3	0.9	2.5	*2.5*	21.7			
1305	Whaingaroa Ward	0.1	0.3	1.1	*1.1*	0.7			Insufficient
1306	Huntly Ward	0.4	1.2	3.8	*3.8*	7.9			
1307	Ngaruawahia Ward	0.5	1.3	3.3	*3.3*	22.0			
1308	Newcastle Ward	0.3	0.8	2.5	*2.5*	87.5			
1309	Raglan Ward	0.5	1.4	3.5	*3.5*	8.9			
1310	Eureka Ward	0.2	0.8	1.8	*1.8*	0.5		Insufficient	Insufficient
1311	Tamahere Ward	0.1	0.1	0.4	*0.4*	1.9			
TOTAL		3.2	10.6	33.5	*33.5*	345.6			

Figure 7.8: Waikato District Commercial Space Sufficiency Summary (GFA sqm)

Ward Code	Ward Name	Commercial Demand (GFA sqm)					Commercial Sufficency		
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (sqm)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30
1301	Awaroa ki Tuakau Ward	3,939	19,991	77,022	*77,022*	2,358,200			
1302	Onewhero Ward	51	967	3,061	*3,061*	-	Insufficient	Insufficient	Insufficient
1303	Whangamarino Ward	1,540	6,494	13,947	*13,947*	522,000			
1304	Hukanui-Waerenga Ward	1,560	6,303	16,412	*16,412*	170,000			
1305	Whaingaroa Ward	112	1,326	6,228	*6,228*	5,000			Insufficient
1306	Huntly Ward	2,403	9,457	26,291	*26,291*	119,500			
1307	Ngaruawahia Ward	2,144	8,498	21,575	*21,575*	473,500			
1308	Newcastle Ward	1,901	6,110	16,654	*16,654*	648,800			
1309	Raglan Ward	3,272	11,306	23,285	*23,285*	91,200			
1310	Eureka Ward	1,162	4,958	9,822	*9,822*	13,600			
1311	Tamahere Ward	452	1,245	2,588	*2,588*	13,500			
TOTAL		18,535	76,653	216,885	*216,885*	4,415,300			

In terms of retail land, Waikato District has identified almost 56ha of vacant retail enabled land. This could potentially accommodate 592,000sqm of retail built floorspace. Again, this is in excess of the long term demand of 11.4ha of retail land or almost 70,000sqm of GFA. Waikato has sufficient retail land and space in all wards with the exception of those that currently have no retail presence (Onewhero, Whaingaroa and Tamahere). Given households reliance on retail shops to meet daily needs, this could potentially be an issue that needs to be monitored. At present demand growth in these wards is extremely low, so the issues are not critical. We recommend that Council monitor these areas for growth and retail requirements.

Figure 7.9: Waikato District Retail Land Sufficiency Summary (ha)

Ward Code	Ward Name	Retail Demand (ha)					Retail Land Sufficency		
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (ha)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30
1301	Awaroa ki Tuakau Ward	0.1	1.0	4.6	*4.6*	23.8			
1302	Onewhero Ward	0.0	0.0	0.1	*0.1*	-	Insufficient	Insufficient	Insufficient
1303	Whangamarino Ward	0.1	0.2	0.6	*0.6*	5.5			
1304	Hukanui-Waerenga Ward	0.0	0.1	0.3	*0.3*	0.9			
1305	Whaingaroa Ward	0.0	0.1	0.3	*0.3*	-	Insufficient	Insufficient	Insufficient
1306	Huntly Ward	0.1	0.5	2.2	*2.2*	3.3			
1307	Ngaruawahia Ward	0.1	0.3	0.9	*0.9*	18.7			
1308	Newcastle Ward	0.1	0.2	0.6	*0.6*	1.9			
1309	Raglan Ward	0.2	0.5	1.1	*1.1*	1.4			
1310	Eureka Ward	0.1	0.2	0.5	*0.5*	0.4			Insufficient
1311	Tamahere Ward	0.0	0.1	0.2	*0.2*	-	Insufficient	Insufficient	Insufficient
TOTAL		0.8	3.2	11.4	*11.4*	55.7			

Figure 7.10: Waikato District Retail Space Sufficiency Summary (GFA sqm)

Ward Code	Ward Name	Retail Demand (GFA sqm)					Retail Sufficency		
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (sqm)	Short Term 0 to 3	Medium Term 3 to 10	Long Term 10 to 30
1301	Awaroa ki Tuakau Ward	698	6,112	27,628	*27,628*	292,500			
1302	Onewhero Ward	37	236	689	*689*	-		Insufficient	Insufficient
1303	Whangamarino Ward	405	1,709	3,548	*3,548*	62,800			
1304	Hukanui-Waerenga Ward	199	743	1,946	*1,946*	10,000			
1305	Whaingaroa Ward	- 85	156	1,733	*1,733*	-		Insufficient	Insufficient
1306	Huntly Ward	567	3,629	13,875	*13,875*	34,000			
1307	Ngaruawahia Ward	463	1,955	5,802	*5,802*	151,200			
1308	Newcastle Ward	473	1,384	3,707	*3,707*	18,800			
1309	Raglan Ward	1,396	4,198	7,869	*7,869*	16,200			
1310	Eureka Ward	240	1,174	2,158	*2,158*	6,800			
1311	Tamahere Ward	167	447	1,028	*1,028*	100	Insufficient	Insufficient	Insufficient
TOTAL		4,562	21,742	69,983	*69,983*	592,400			

Waikato District has identified 299ha of industrial land under its district plan. This land could accommodate approximately 2.1 million sqm of GFA. While demand for industrial land in the short term is low (23ha over three years) over the long term land demand rises to 209.4ha. While this remains lower than plan enabled capacity, it is close to the total supply.

We recommend Council monitor demand growth and uptake of industrial land in Waikato District in order to ensure appropriate volumes of land are provided for in appropriate locations. Notably, in the Huntly and Ngaruawahia Wards. In terms of demand for industrial space, the available land provides ample sufficiency to meet short, medium and long term needs overall. Care is needed in Huntly and Ngarauwahia.

Figure 7.11: Waikato District Industrial Land Sufficiency Summary (ha)

Ward Code	Ward Name	Industrial Demand (ha)					Industrial Land Sufficiency		
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (ha)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30
1301	Awaroa ki Tuakau Ward	4.1	17.5	65.4	*65.4*	119.5			
1302	Onewhero Ward	0.2	1.0	3.5	*3.5*	-	Insufficient	Insufficient	Insufficient
1303	Whangamarino Ward	1.3	4.7	12.7	*12.7*	47.1			
1304	Hukanui-Waerenga Ward	1.6	4.5	9.6	*9.6*	21.6			
1305	Whaingaroa Ward	1.0	2.5	11.2	*11.2*	0.8	Insufficient	Insufficient	Insufficient
1306	Huntly Ward	2.4	6.5	16.6	*16.6*	7.2			Insufficient
1307	Ngaruawahia Ward	1.1	4.1	10.1	*10.1*	4.1		Insufficient	Insufficient
1308	Newcastle Ward	6.4	25.3	59.7	*59.7*	89.7			
1309	Raglan Ward	1.6	3.5	6.2	*6.2*	7.4			
1310	Eureka Ward	2.6	6.5	12.3	*12.3*	-	Insufficient	Insufficient	Insufficient
1311	Tamahere Ward	0.4	0.9	2.2	*2.2*	1.9			Insufficient
TOTAL		22.8	77.1	209.4	*209.4*	299.2			

Figure 7.12: Waikato District Industrial Space Sufficiency Summary (GFA sqm)

Ward Code	Ward Name	Industrial Demand (GFA sqm)					Industrial (GFA) Sufficency		
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (sqm)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30
1301	Awaroa ki Tuakau Ward	16,553	81,992	281,454	*281,454*	836,200			
1302	Onewhero Ward	942	4,803	15,229	*15,229*	-	Insufficient	Insufficient	Insufficient
1303	Whangamarino Ward	5,543	23,809	57,124	*57,124*	329,800			
1304	Hukanui-Waerenga Ward	6,709	23,394	43,758	*43,758*	151,000			
1305	Whaingaroa Ward	4,348	13,639	50,543	*50,543*	5,400		Insufficient	Insufficient
1306	Huntly Ward	10,222	34,498	77,247	*77,247*	50,500			Insufficient
1307	Ngaruawahia Ward	4,677	20,470	45,632	*45,632*	28,500			Insufficient
1308	Newcastle Ward	26,232	123,296	264,353	*264,353*	627,900			
1309	Raglan Ward	6,633	19,340	30,458	*30,458*	51,400			
1310	Eureka Ward	11,472	36,211	56,746	*56,746*	-	Insufficient	Insufficient	Insufficient
1311	Tamahere Ward	1,676	4,983	10,415	*10,415*	13,300			
TOTAL		95,008	386,435	932,958	*932,958*	2,094,000			

7.3 Waipa Area Results

Waipa District has identified 78ha of commercial land capacity in their various planning documents. While this is significantly more than demand requires (at the District level) over the long term (a total of 30ha is estimated to be needed), the capacity is highly concentrated in the Pirongia Ward (74ha out of the 78ha total). This leaves real shortfalls in the major centres – Cambridge and Te Awamutu, where land demand for 15ha and 5.2ha respectively (over the long term) far exceeds the 1.6 ha of capacity identified in each urban area.

In the short term demand in Cambridge is 1.8ha which matches the land identified for commercial activities. This means that sometime inside 10 years Cambridge will have exhausted its supply of commercial land.

In Te Awamutu short term demand is 1.1ha, while Medium Term demand is for 2.4ha – more than the 1.6ha of identified vacant land (Figure 7.13).

While the land available in Cambridge and Te Awamutu appears constrained, the amount of enabled floorspace on the land that is available appears to be sufficient to meet the needs of the areas (Figure 7.14).

Figure 7.13: Waipa District Commercial Land Sufficiency Summary (ha)

Ward Code	Ward Name	Commercial Demand (Land Ha)					Commercial Land Sufficency		
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (ha)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30
1701	Pirongia Ward	1.4	2.7	4.7	4.7	74.3			
1702	Cambridge Ward	1.8	6.0	15.1	15.1	1.6	Insufficient	Insufficient	Insufficient
1703	Maungatautari Ward	1.0	1.9	3.4	3.4	0.3	Insufficient	Insufficient	Insufficient
1704	Te Awamutu Ward	1.1	2.4	5.2	5.2	1.6		Insufficient	Insufficient
1705	Kakepuku Ward	0.4	0.9	1.6	1.6	0.2	Insufficient	Insufficient	Insufficient
TOTAL		5.7	13.9	29.9	29.9	77.9			

Figure 7.14: Waipa District Commercial Space Sufficiency Summary (ha)

Ward Code	Ward Name	Commercial Demand (GFA sqm)					Commercial Sufficency		
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (sqm)	Short Term 0 to 3	Medium Term 3 to 10	Long Term 10 to 30
1701	Pirongia Ward	1,819	6,293	20,972	*20,972*	885,710			
1702	Cambridge Ward	3,997	16,913	74,888	*74,888*	105,940			
1703	Maungatautari Ward	214	2,430	7,872	*7,872*	-	Insufficient	Insufficient	Insufficient
1704	Te Awamutu Ward	7,304	22,982	68,721	*68,721*	99,400			
1705	Kakepuku Ward	2,364	7,889	16,673	*16,673*	9,750			Insufficient
TOTAL		15,698	56,508	189,126	189,126	1,100,800			

In total 1.1 million sqm of GFA is provided for, where as demand over the long term is only 189,100sqm. Within Cambridge demand in the long term is 74,900sqm compared with capacity of 105,900sqm GFA. In Te Awamutu demand in the long term is 68,700sqm GFA while capacity is estimated to be 99,400sqm GFA

We recommend that Council monitor this situation closely, via uptake and commercial land prices to see whether the land shortfall in these urban areas is generating harm via price rises for businesses.

Retail Sufficiency

Waipa has provided for 69.8ha of retail land upon which 551,600sqm GFA could be developed. At the District level this greatly exceeds the demands even in the long term. However, as with the commercial land described above, Council need to monitor Cambridge and Te Awamutu. In these towns retail land

demand is expected to exceed supply within 10 years (within the medium term). In Cambridge the 1.5ha of retail land identified is less than the 2.0ha demanded over the medium term (10 years). In Te Awamutu the 1.6ha of vacant retail land is slightly more than the 1.2ha demands in the medium term but less than the 2.3ha demanded in the long term.

Figure 7.15: Waipa District Retail Land Sufficiency Summary (ha)

Ward Code	Ward Name	Retail Demand (ha)					Retail Land Sufficency		
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (ha)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30
1701	Pirongia Ward	0.6	1.2	2.0	2.0	66.6			
1702	Cambridge Ward	0.6	2.0	4.8	4.8	1.5		Insufficient	Insufficient
1703	Maungatautari Ward	0.5	1.0	1.6	1.6	-	Insufficient	Insufficient	Insufficient
1704	Te Awamutu Ward	0.5	1.2	2.3	2.3	1.6			Insufficient
1705	Kakepuku Ward	0.2	0.4	0.6	0.6	0.2	Insufficient	Insufficient	Insufficient
TOTAL		2.5	5.7	11.3	11.3	69.8			

From a floorspace perspective the situation is less of an issue with capacity provided in both the major centres exceeding demand in the long term. However, that is not the case once a buffer of 15% is added to cater for the portion that may not be developed over the next 30 years (see section below).

Figure 7.16: Waipa District Retail Space Sufficiency Summary (ha)

Ward Code	Ward Name	Retail Demand (GFA sqm)					Retail Sufficency		
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (sqm)	Short Term 0 to 3	Medium Term 3 to 10	Long Term 10 to 30
1701	Pirongia Ward	404	1,447	5,025	5,025	484,020			
1702	Cambridge Ward	783	5,775	27,360	27,360	31,250			
1703	Maungatautari Ward	200	768	2,181	2,181	-	Insufficient	Insufficient	Insufficient
1704	Te Awamutu Ward	1,890	6,859	22,710	22,710	33,110			
1705	Kakepuku Ward	767	2,338	4,474	4,474	3,250			Insufficient
TOTAL		4,044	17,188	61,751	61,751	551,630			

Even if commercial and retail land is combined there are significant shortfalls in Waipa's main urban towns (Cambridge and Te Awamutu). However, there is ssufficient retail GFA. This means that the problem is likely to be one of coding and primacy. The assumption being that a piece of land coded as being available for retail, may indeed have a ground floor of retail, with commercial activities above. This would mean that the commercial land could show up as being deficient, yet GFA capacity is sufficient.

We recommend that Council continue to monitor uptake of this land to ensure that all sectors are enabled.

Industrial Sufficiency

Waipa's District Plan enables 193ha of industrial land. This is highly concentrated in the Pirongia Ward (Titanium Park). IN total the amount of land provided exceeds demand over the long term (193ha provided compared with 147ha demanded). As with the commercial and retail situation discussed above, issues arise at the local level with short falls in Cambridge, Maungatautari and Te Awamutu wards in the long term. While Council may be looking to concentrate industrial activity into a few particular locations, they need to be mindful of local demands for industrial land - especially in the major urban area that need to be catered for.

Figure 7.17: Waipa District Industrial Land Sufficiency Summary (ha)

Ward Code	Ward Name	Industrial Demand (ha)					Industrial Land Sufficiency		
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (ha)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30
1701	Pirongia Ward	5.5	13.8	31.0	31.0	138			
1702	Cambridge Ward	8.9	26.5	71.9	71.9	24		Insufficient	Insufficient
1703	Maungatautari Ward	0.8	2.0	6.2	6.2	-	Insufficient	Insufficient	Insufficient
1704	Te Awamutu Ward	5.4	12.0	27.5	27.5	11		Insufficient	Insufficient
1705	Kakepuku Ward	1.7	4.4	10.5	10.5	21			
TOTAL		22.3	58.6	147.2	147.2	193			

Figure 7.18: Waipa District Industrial Space Sufficiency Summary (ha)

Ward Code	Ward Name	Industrial Demand (GFA sqm)					Industrial (GFA) Sufficency		
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (sqm)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30
1701	Pirongia Ward	6,180	18,885	75,458	75,458	528,120			
1702	Cambridge Ward	18,695	75,953	296,513	296,513	137,580			Insufficient
1703	Maungatautari Ward	3,691	13,325	34,675	34,675	-	Insufficient	Insufficient	Insufficient
1704	Te Awamutu Ward	24,532	62,428	151,432	151,432	60,380		Insufficient	Insufficient
1705	Kakepuku Ward	16,693	45,795	89,568	89,568	119,340			
TOTAL		69,790	216,386	647,645	647,645	845,420			

In terms of industrial built space, capacity at the District wide level is sufficient, yet shortfalls exist in the key urban wards (Cambridge and Te Awamutu) that Council needs to monitor.

7.4 Incorporating a Margin Over and Above Demand

As part of NPS-UDC Objective Group C – Responsive Planning, Councils are encouraged to factor in the proportion of feasible capacity that may not be developed, in addition to the amount required to ensure sufficient feasible development capacity. The NPS-UDC requires that Councils allow for an additional margin of 20% over and above projected demand in the short and medium term and 15% in the long term.

The tables that follow first outline sufficiency across the FPP area by incorporating the additional margins over and above demand. The structure follows the structure above. The main points are;

- All TAs provide sufficient capacity including the margin over and above growth.
- Industrial Land demand plus a margin in the long term beginning to approach capacity – most TA's between 80% and 90% of capacity once the margin is added.
- Floorspace demand plus the margin remains well below capacity. Even in industrial sector demand sits below 50% of capacity – with the exception of Waipa District at 88%.
- As with the sufficiency discussed above, the issues lie at the more local level. The Cambridge and Te Awamutu wards do not have sufficient identified land capacity to meet business land demand plus a margin over the medium to long term.
- Across Waikato District there are some areas where by adding a margin makes areas insufficient, however, the areas in question are not vital to the functioning of the District's economy overall. Mostly this occurs in wards with relatively little growth and almost no capacity. In areas where growth is high, ample capacity has been provided.

7.4.1 Land Sufficiency plus Margin Results

Figure 7.19. Hamilton Commercial Land Sufficiency plus Margin (ha)

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term	Total Vacant Land (ha)	Short Term	Medium Term	Long Term
1	Te Rapa North	1.7	3.7	11.7	0.0	Insufficient	Insufficient	Insufficient
2	Te Rapa	0.2	4.8	5.5	45.7			
3	Rotokauri	5.6	25.3	28.0	190.2			
4	Norton	0.2	0.4	0.4	0.1	Insufficient	Insufficient	Insufficient
5	Dinsdale	-0.7	0.9	1.2	3.0			
6	Temple View	1.3	7.0	7.8	17.3			
7	Frankton	0.2	0.8	0.9	15.8			
8	Glenview	0.9	1.2	1.2	0.4	Insufficient	Insufficient	Insufficient
9	Peacocke	1.6	16.7	18.9	0.7	Insufficient	Insufficient	Insufficient
10	Hillcrest	1.1	1.8	1.9	1.7		Insufficient	Insufficient
11	Hamilton East	1.1	6.2	6.9	2.4		Insufficient	Insufficient
12	Ruakura	-1.3	-1.0	-0.9	325.2			
13	Chedworth-Fairview Downs	4.7	5.1	5.0	1.0	Insufficient	Insufficient	Insufficient
14	Claudelands	-1.7	-7.9	-8.8	1.2			
15	Chartwell	0.3	0.7	0.8	0.1	Insufficient	Insufficient	Insufficient
16	Rototuna	0.3	7.1	8.2	18.6			
17	Saint Andrews	0.1	0.2	0.2	0.1	Insufficient	Insufficient	Insufficient
18	Forest Lake	0.3	1.1	1.2	0.3	Insufficient	Insufficient	Insufficient
19	CBD	1.4	5.7	6.3	8.0			
20	Hamilton Lake	0.6	3.0	3.4	10.8			
Total		**18.0**	**83.0**	**99.7**	**642.7**			

Figure 7.20. Hamilton Retail Land Sufficiency plus Margin (ha)

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term	Total Vacant Land (ha)	Short Term	Medium Term	Long Term
1	Te Rapa North	0.0	0.0	0.0	0.0	Insufficient	Insufficient	Insufficient
2	Te Rapa	-0.8	0.0	2.0	8.4			
3	Rotokauri	0.0	0.9	3.5	83.5			
4	Norton	0.1	0.1	0.0	0.0	Insufficient	Insufficient	
5	Dinsdale	-0.1	0.3	0.8	0.1		Insufficient	Insufficient
6	Temple View	0.0	0.0	0.0	17.3			
7	Frankton	0.2	0.8	2.0	1.7			Insufficient
8	Glenview	0.2	0.2	0.1	0.0	Insufficient	Insufficient	Insufficient
9	Peacocke	0.0	0.0	0.0	0.7			
10	Hillcrest	0.2	0.3	0.5	0.0	Insufficient	Insufficient	Insufficient
11	Hamilton East	1.5	2.7	3.3	0.8	Insufficient	Insufficient	Insufficient
12	Ruakura	2.0	11.1	18.8	52.1			
13	Chedworth-Fairview Downs	0.6	1.0	1.1	0.6	Insufficient	Insufficient	Insufficient
14	Claudelands	1.9	2.4	1.8	1.2	Insufficient	Insufficient	Insufficient
15	Chartwell	0.0	0.1	-0.5	0.1		Insufficient	
16	Rototuna	0.8	1.2	1.6	11.2			
17	Saint Andrews	0.0	0.0	-0.1	0.0			
18	Forest Lake	0.6	0.8	0.7	0.1	Insufficient	Insufficient	Insufficient
19	CBD	0.2	2.0	6.0	7.4			
20	Hamilton Lake	0.1	0.2	0.4	0.5			
Total		**7.4**	**24.1**	**41.8**	**185.8**			

Figure 7.21. Hamilton Industrial Land Sufficiency plus Margin (ha)

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term	Vacant Land Short Term (ha)	Vacant Land Medium Term (ha)	Vacant Land Long Term (ha)	Short Term	Medium Term	Long Term
1	Te Rapa North	-2.8	-2.5	-1.1	14.0	56.0	193.6			
2	Te Rapa	7.8	19.1	29.2	42.5	42.5	42.5			
3	Rotokauri	56.7	210.8	279.6	106.8	106.8	106.8		Insufficient	Insufficient
4	Norton	7.0	43.1	75.5	0.1	0.1	0.1	Insufficient	Insufficient	Insufficient
5	Dinsdale	1.5	3.9	5.9	2.3	2.3	2.3		Insufficient	Insufficient
6	Temple View	0.2	0.7	4.7	0.0	0.0	0.0	Insufficient	Insufficient	Insufficient
7	Frankton	0.5	8.0	27.0	13.9	13.9	13.9			Insufficient
8	Glenview	7.5	26.7	84.2	0.3	0.3	0.3	Insufficient	Insufficient	Insufficient
9	Peacocke	0.0	1.2	3.8	0.0	0.0	0.0	Insufficient	Insufficient	Insufficient
10	Hillcrest	9.7	13.5	15.8	1.7	1.7	1.7	Insufficient	Insufficient	Insufficient
11	Hamilton East	0.0	1.5	5.2	1.3	1.3	1.3		Insufficient	Insufficient
12	Ruakura	5.9	5.3	16.3	325.2	325.2	325.2			
13	Chedworth-Fairview Downs	0.6	1.0	1.5	0.4	0.4	0.4	Insufficient	Insufficient	Insufficient
14	Claudelands	-0.1	0.3	2.9	0.0	0.0	0.0		Insufficient	Insufficient
15	Chartwell	2.8	2.3	-5.0	0.0	0.0	0.0	Insufficient	Insufficient	
16	Rototuna	12.7	16.9	17.2	0.0	0.0	0.0	Insufficient	Insufficient	Insufficient
17	Saint Andrews	11.6	12.0	12.3	0.1	0.1	0.1	Insufficient	Insufficient	Insufficient
18	Forest Lake	0.2	0.4	1.2	0.1	0.1	0.1	Insufficient	Insufficient	Insufficient
19	CBD	0.4	2.0	6.5	0.0	0.0	0.0	Insufficient	Insufficient	Insufficient
20	Hamilton Lake	10.1	15.4	20.3	9.1	9.1	9.1	Insufficient	Insufficient	Insufficient
Total		**132.1**	**381.6**	**603.0**	**517.8**	**559.8**	**697.4**			

Figure 7.22. Waikato District Commercial Land Sufficiency plus Margin (ha)

Ward Code	Ward Name	Commercial Demand (Land Ha)					Commercial Land Sufficency			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (ha)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	TOTAL 2017 - 2047
1301	Awaroa ki Tuakau Ward	0.8	3.4	13.7	*13.7*	142.9				
1302	Onewhero Ward	0.0	0.2	0.6	*0.6*	-	Insufficient	Insufficient	Insufficient	Insufficient
1303	Whangamarino Ward	0.3	1.1	2.5	*2.5*	51.5				
1304	Hukanui-Waerenga Ward	0.3	1.0	2.9	*2.9*	21.7				
1305	Whaingaroa Ward	0.1	0.3	1.2	*1.2*	0.7			Insufficient	Insufficient
1306	Huntly Ward	0.5	1.5	4.3	*4.3*	7.9				
1307	Ngaruawahia Ward	0.5	1.5	3.8	*3.8*	22.0				
1308	Newcastle Ward	0.4	0.9	2.9	*2.9*	87.5				
1309	Raglan Ward	0.6	1.7	4.0	*4.0*	8.9				
1310	Eureka Ward	0.3	0.9	2.0	*2.0*	0.5		Insufficient	Insufficient	Insufficient
1311	Tamahere Ward	0.1	0.2	0.4	*0.4*	1.9				
TOTAL		3.9	12.8	38.5	*38.5*	345.6				

Figure 7.23. Waikato District Retail Land Sufficiency plus Margin (ha)

Ward Code	Ward Name	Retail Demand (ha)					Retail Land Sufficency			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (ha)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	TOTAL 2017 - 2047
1301	Awaroa ki Tuakau Ward	0.2	1.1	5.2	*5.2*	23.8				
1302	Onewhero Ward	0.0	0.0	0.1	*0.1*	-	Insufficient	Insufficient	Insufficient	Insufficient
1303	Whangamarino Ward	0.1	0.3	0.7	*0.7*	5.5				
1304	Hukanui-Waerenga Ward	0.0	0.1	0.4	*0.4*	0.9				
1305	Whaingaroa Ward	0.0	0.1	0.4	*0.4*	-	Insufficient	Insufficient	Insufficient	Insufficient
1306	Huntly Ward	0.1	0.6	2.6	*2.6*	3.3				
1307	Ngaruawahia Ward	0.1	0.3	1.1	*1.1*	18.7				
1308	Newcastle Ward	0.1	0.2	0.7	*0.7*	1.9				
1309	Raglan Ward	0.3	0.6	1.3	*1.3*	1.4				
1310	Eureka Ward	0.1	0.3	0.5	*0.5*	0.4			Insufficient	Insufficient
1311	Tamahere Ward	0.0	0.1	0.2	*0.2*	-	Insufficient	Insufficient	Insufficient	Insufficient
TOTAL		1.0	3.8	13.1	*13.1*	55.7				

Figure 7.24. Waikato District Industrial Land Sufficiency plus Margin (ha)

Ward Code	Ward Name	Industrial Demand (ha)					Industrial Land Sufficiency			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (ha)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	TOTAL 2017 - 2047
1301	Awaroa ki Tuakau Ward	4.9	21.0	75.2	*75.2*	119.5				
1302	Onewhero Ward	0.3	1.2	4.0	*4.0*	-	Insufficient	Insufficient	Insufficient	Insufficient
1303	Whangamarino Ward	1.6	5.7	14.6	*14.6*	47.1				
1304	Hukanui-Waerenga Ward	1.9	5.4	11.0	*11.0*	21.6				
1305	Whaingaroa Ward	1.2	3.0	12.9	*12.9*	0.8	Insufficient	Insufficient	Insufficient	Insufficient
1306	Huntly Ward	2.9	7.8	19.1	*19.1*	7.2		Insufficient	Insufficient	Insufficient
1307	Ngaruawahia Ward	1.3	4.9	11.6	*11.6*	4.1		Insufficient	Insufficient	Insufficient
1308	Newcastle Ward	7.7	30.4	68.7	*68.7*	89.7				
1309	Raglan Ward	1.9	4.1	7.1	*7.1*	7.4				
1310	Eureka Ward	3.2	7.8	14.1	*14.1*	-	Insufficient	Insufficient	Insufficient	Insufficient
1311	Tamahere Ward	0.5	1.1	2.6	*2.6*	1.9			Insufficient	Insufficient
	TOTAL	27.3	92.5	240.8	*240.8*	299.2				

Figure 7.25. Waipa District Commercial Land Sufficiency plus Margin (ha)

Ward Code	Ward Name	Commercial Demand (Land Ha)					Commercial Land Sufficency			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (ha)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	TOTAL 2017 - 2047
1701	Pirongia Ward	1.6	3.3	5.4	*5.4*	74.3				
1702	Cambridge Ward	2.1	7.1	17.4	*17.4*	1.6	Insufficient	Insufficient	Insufficient	Insufficient
1703	Maungatautari Ward	1.3	2.3	3.9	*3.9*	0.3	Insufficient	Insufficient	Insufficient	Insufficient
1704	Te Awamutu Ward	1.3	2.9	6.0	*6.0*	1.6		Insufficient	Insufficient	Insufficient
1705	Kakepuku Ward	0.4	1.0	1.8	*1.8*	0.2	Insufficient	Insufficient	Insufficient	Insufficient
	TOTAL	6.8	16.7	34.4	34.4	77.9				

Figure 7.26. Waipa District Retail Land Sufficiency plus Margin (ha)

Ward Code	Ward Name	Retail Demand (ha)					Retail Land Sufficency			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (ha)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	TOTAL 2017 - 2047
1701	Pirongia Ward	0.8	1.5	2.3	*2.3*	66.6				
1702	Cambridge Ward	0.8	2.4	5.5	*5.5*	1.5		Insufficient	Insufficient	Insufficient
1703	Maungatautari Ward	0.6	1.2	1.8	*1.8*	-	Insufficient	Insufficient	Insufficient	Insufficient
1704	Te Awamutu Ward	0.6	1.4	2.7	*2.7*	1.6			Insufficient	Insufficient
1705	Kakepuku Ward	0.2	0.4	0.7	*0.7*	0.2	Insufficient	Insufficient	Insufficient	Insufficient
	TOTAL	3.0	6.8	12.9	12.9	69.8				

Figure 7.27. Waipa District Industrial Land Sufficiency plus Margin (ha)

Ward Code	Ward Name	Industrial Demand (ha)					Industrial Land Sufficiency			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (ha)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	TOTAL 2017 - 2047
1701	Pirongia Ward	6.6	16.6	35.7	*35.7*	137.9				
1702	Cambridge Ward	10.7	31.8	82.7	*82.7*	23.9		Insufficient	Insufficient	Insufficient
1703	Maungatautari Ward	0.9	2.4	7.1	*7.1*	-	Insufficient	Insufficient	Insufficient	Insufficient
1704	Te Awamutu Ward	6.5	14.4	31.7	*31.7*	10.9		Insufficient	Insufficient	Insufficient
1705	Kakepuku Ward	2.1	5.3	12.1	*12.1*	20.5				
	TOTAL	26.7	70.3	169.3	169.3	193.2				

7.4.2 Floorspace Sufficiency plus Margin Results

Once a margin is added to floorspace requirements estimates they move closer to the amount provided for under the plan provisions. However, because so much capacity has been provided for, the additional margins on top of expected demand do not make a significant difference to the outcome.

Hamilton is still very well provided for with respect to commercial retail and industrial floorspace under the current District plan provisions.

Figure 7.28. Hamilton Commercial Floorspace Sufficiency plus Margin (sqm GFA)

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term	Total GFA Capacity (sqm)	Short Term	Medium Term	Long Term
1	Te Rapa North	766	1,658	5,454	-	Insufficient	Insufficient	Insufficient
2	Te Rapa	275	8,519	37,456	201,459			
3	Rotokauri	11,874	37,024	75,154	2,220,046			
4	Norton	890	1,780	2,336	181	Insufficient	Insufficient	Insufficient
5	Dinsdale	-1,989	-494	4,120	15,460			
6	Temple View	1,003	3,069	22,679	258,913			
7	Frankton	2,888	7,529	20,020	54,798			
8	Glenview	729	869	-4,063	836		Insufficient	
9	Peacocke	758	3,888	7,560	17,638			
10	Hillcrest	7,314	12,639	15,130	2,307	Insufficient	Insufficient	Insufficient
11	Hamilton East	6,637	21,643	46,187	21,784			Insufficient
12	Ruakura	1,764	5,378	13,017	13,379,908			
13	Chedworth-Fairview Downs	6,542	10,699	10,388	12,444			
14	Claudelands	-10,097	-24,121	-27,956	41,507			
15	Chartwell	934	1,754	2,751	1,289		Insufficient	Insufficient
16	Rototuna	3,191	9,515	23,619	367,456			
17	Saint Andrews	797	1,823	2,642	286	Insufficient	Insufficient	Insufficient
18	Forest Lake	1,609	2,896	3,262	2,648		Insufficient	Insufficient
19	CBD	22,854	74,062	165,104	227,194			
20	Hamilton Lake	5,689	17,663	38,067	47,589			
Total		**64,427**	**197,795**	**462,930**	**16,873,743**			

Figure 7.29. Hamilton Retail Floorspace Sufficiency plus Margin (sqm GFA)

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term	Total GFA (sqm)	Short Term	Medium Term	Long Term
1	Te Rapa North	0	0	1	-	Insufficient	Insufficient	Insufficient
2	Te Rapa	-3,219	-234	7,670	62,639			
3	Rotokauri	206	2,751	11,356	417,317			
4	Norton	361	407	-82	-	Insufficient	Insufficient	
5	Dinsdale	-98	1,614	2,961	496		Insufficient	Insufficient
6	Temple View	0	0	0	86,304			
7	Frankton	852	3,622	8,440	6,563			Insufficient
8	Glenview	541	733	409	139	Insufficient	Insufficient	Insufficient
9	Peacocke	0	3	14	3,528			
10	Hillcrest	838	1,428	2,125	71	Insufficient	Insufficient	Insufficient
11	Hamilton East	5,190	9,533	12,036	2,951	Insufficient	Insufficient	Insufficient
12	Ruakura	14,645	26,141	34,422	260,525			
13	Chedworth-Fairview Downs	1,927	3,088	3,218	1,969		Insufficient	Insufficient
14	Claudelands	7,974	10,019	7,439	7,327	Insufficient	Insufficient	Insufficient
15	Chartwell	-34	255	-2,629	215		Insufficient	
16	Rototuna	2,410	3,785	6,329	54,337			
17	Saint Andrews	-10	-94	-442	74			
18	Forest Lake	3,020	3,908	3,135	308	Insufficient	Insufficient	Insufficient
19	CBD	1,465	14,430	38,187	36,826			Insufficient
20	Hamilton Lake	148	540	1,192	1,931			
Total		**36,215**	**81,929**	**135,781**	**943,519**			

Figure 7.30. Hamilton Industrial Floorspace Sufficiency plus Margin (sqm GFA)

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term	Total GFA Short Term (sqm)	Total GFA Medium Term (sqm)	Total GFA Long Term (sqm)	Short Term	Medium Term	Long Term
1	Te Rapa North	-9,312	-8,016	12,305	112,043	448,174	1,549,576			
2	Te Rapa	26,808	67,836	121,360	249,279	249,279	249,279			
3	Rotokauri	21,288	88,476	199,042	667,292	667,292	667,292			
4	Norton	204	672	1,875	903	903	903			Insufficient
5	Dinsdale	-456	-204	771	14,506	14,506	14,506			
6	Temple View	0	0	104	-	-	-			Insufficient
7	Frankton	2,208	34,296	132,009	87,119	87,119	87,119			Insufficient
8	Glenview	780	1,716	3,209	2,097	2,097	2,097			Insufficient
9	Peacocke	12	1,116	4,612	-	-	-	Insufficient	Insufficient	Insufficient
10	Hillcrest	3,600	4,932	3,255	10,470	10,470	10,470			
11	Hamilton East	576	1,692	3,853	7,917	7,917	7,917			
12	Ruakura	66,768	141,372	297,160	2,360,247	2,360,247	2,360,247			
13	Chedworth-Fairview Downs	252	912	2,507	2,581	2,581	2,581			
14	Claudelands	216	456	759	-	-	-	Insufficient	Insufficient	Insufficient
15	Chartwell	12	24	46	-	-	-	Insufficient	Insufficient	Insufficient
16	Rototuna	852	1,776	13,789	-	-	-	Insufficient	Insufficient	Insufficient
17	Saint Andrews	1,152	3,264	8,188	316	316	316	Insufficient	Insufficient	Insufficient
18	Forest Lake	-84	204	886	633	633	633			Insufficient
19	CBD	348	5,304	28,693	-	-	-	Insufficient	Insufficient	Insufficient
20	Hamilton Lake	6,528	18,720	47,725	56,915	56,915	56,915			
Total		**121,752**	**364,548**	**882,142**	**3,572,320**	**3,908,450**	**5,009,853**			

Waikato District

The same is broadly true within Waikato District. Areas (wards that are currently under supplied, becomes slightly more so and areas where capacity exists remain well above demand plus margin. The overall position is that Waikato remains well served by its District Plan in terms of the amount of built floorspace the provisions allow.

Figure 7.31. Waikato District Commercial Floorspace Sufficiency plus Margin (sqm GFA)

Ward Code	Ward Name	Commercial Demand (GFA sqm)					Commercial Sufficency			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (sqm)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	TOTAL 2017 - 2047
1301	Awaroa ki Tuakau Ward	4,727	20,741	85,463	*85,463*	2,358,200				
1302	Onewhero Ward	61	1,119	3,480	*3,480*	-	Insufficient	Insufficient	Insufficient	Insufficient
1303	Whangamarino Ward	1,847	6,531	14,830	*14,830*	522,000				
1304	Hukanui-Waerenga Ward	1,872	6,304	17,667	*17,667*	170,000				
1305	Whaingaroa Ward	135	1,481	7,056	*7,056*	5,000			Insufficient	Insufficient
1306	Huntly Ward	2,883	9,394	28,363	*28,363*	119,500				
1307	Ngaruawahia Ward	2,572	8,426	23,114	*23,114*	473,500				
1308	Newcastle Ward	2,282	5,758	17,644	*17,644*	648,800				
1309	Raglan Ward	3,927	10,809	24,135	*24,135*	91,200				
1310	Eureka Ward	1,394	4,968	10,355	*10,355*	13,600				
1311	Tamahere Ward	542	1,128	2,625	*2,625*	13,500				
TOTAL		22,241	76,659	234,731	*234,731*	4,415,300				

Figure 7.32. Waikato District Retail Floorspace Sufficiency plus Margin (sqm GFA)

Ward Code	Ward Name	Retail Demand (GFA sqm)					Retail Sufficency			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (sqm)	Short Term 0 to 3	Medium Term 3 to 10	Long Term 10 to 30	TOTAL 2017 - 2047
1301	Awaroa ki Tuakau Ward	838	6,758	31,220	*31,220*	292,500				
1302	Onewhero Ward	44	253	763	*763*	-		Insufficient	Insufficient	Insufficient
1303	Whangamarino Ward	486	1,721	3,765	*3,765*	62,800				
1304	Hukanui-Waerenga Ward	239	731	2,084	*2,084*	10,000				
1305	Whaingaroa Ward	- 102	248	2,051	*2,051*	-		Insufficient	Insufficient	Insufficient
1306	Huntly Ward	681	3,894	15,516	*15,516*	34,000				
1307	Ngaruawahia Ward	556	1,966	6,308	*6,308*	151,200				
1308	Newcastle Ward	567	1,274	3,892	*3,892*	18,800				
1309	Raglan Ward	1,676	3,865	7,925	*7,925*	16,200				
1310	Eureka Ward	288	1,203	2,284	*2,284*	6,800				
1311	Tamahere Ward	201	400	1,052	*1,052*	100	Insufficient	Insufficient	Insufficient	Insufficient
TOTAL		5,474	22,312	76,859	*76,859*	592,400				

Figure 7.33. Waikato District Industrial Floorspace Sufficiency plus Margin (sqm GFA)

Ward Code	Ward Name	Industrial Demand (GFA sqm)					Industrial (GFA) Sufficency			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (sqm)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	TOTAL 2017 - 2047
1301	Awaroa ki Tuakau Ward	19,863	84,365	310,232	*310,232*	836,200				
1302	Onewhero Ward	1,130	4,990	16,771	*16,771*	-	Insufficient	Insufficient	Insufficient	Insufficient
1303	Whangamarino Ward	6,651	23,921	61,237	*61,237*	329,800				
1304	Hukanui-Waerenga Ward	8,051	22,557	45,035	*45,035*	151,000				
1305	Whaingaroa Ward	5,218	12,721	54,630	*54,630*	5,400		Insufficient	Insufficient	Insufficient
1306	Huntly Ward	12,267	32,979	80,766	*80,766*	50,500			Insufficient	Insufficient
1307	Ngaruawahia Ward	5,613	20,712	48,785	*48,785*	28,500			Insufficient	Insufficient
1308	Newcastle Ward	31,478	124,622	281,645	*281,645*	627,900				
1309	Raglan Ward	7,959	17,480	29,537	*29,537*	51,400				
1310	Eureka Ward	13,767	34,007	56,204	*56,204*	-	Insufficient	Insufficient	Insufficient	Insufficient
1311	Tamahere Ward	2,012	4,611	10,665	*10,665*	13,300				
TOTAL		114,010	382,965	995,509	*995,509*	2,094,000				

Waipa District

Waipa District has some issues with respect to Commercial and Retail land for Cambridge and Te Awamutu. Floorspace has been okay in these areas. However, with a margin retail floorspace in Cambridge in the long term exceeds capacity provided under the plan.

Figure 7.34. Waipa District Commercial Floorspace Sufficiency plus Margin (sqm GFA)

Ward Code	Ward Name	Commercial Demand (GFA sqm)					Commercial Sufficency			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (sqm)	Short Term 0 to 3	Medium Term 3 to 10	Long Term 10 to 30	TOTAL 2017 - 2047
1701	Pirongia Ward	2,183	7,552	24,118	*24,118*	885,710				
1702	Cambridge Ward	4,797	20,296	86,121	*86,121*	105,940				
1703	Maungatautari Ward	257	2,916	9,053	*9,053*	-	Insufficient	Insufficient	Insufficient	Insufficient
1704	Te Awamutu Ward	8,764	27,578	79,029	*79,029*	99,400				
1705	Kakepuku Ward	2,836	9,467	19,174	*19,174*	9,750			Insufficient	Insufficient
TOTAL		18,837	67,810	217,495	217,495	1,100,800				

Figure 7.35. Waipa District Retail Floorspace Sufficiency plus Margin (sqm GFA)

Ward Code	Ward Name	Retail Demand (GFA sqm)					Retail Sufficency			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (sqm)	Short Term 0 to 3	Medium Term 3 to 10	Long Term 10 to 30	TOTAL 2017 - 2047
1701	Pirongia Ward	485	1,737	5,779	*5,779*	484,020				
1702	Cambridge Ward	940	6,930	31,464	*31,464*	31,250			Insufficient	Insufficient
1703	Maungatautari Ward	240	922	2,508	*2,508*	-	Insufficient	Insufficient	Insufficient	Insufficient
1704	Te Awamutu Ward	2,268	8,230	26,117	*26,117*	33,110				
1705	Kakepuku Ward	920	2,806	5,145	*5,145*	3,250			Insufficient	Insufficient
TOTAL		4,853	20,625	71,013	71,013	551,630				

Figure 7.36. Waipa District Industrial Floorspace Sufficiency plus Margin (sqm GFA)

Ward Code	Ward Name	Industrial Demand (GFA sqm)					Industrial (GFA) Sufficency			
		Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	*TOTAL 2017 - 2047*	TOTAL SUPPLY (sqm)	Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	TOTAL 2017 - 2047
1701	Pirongia Ward	7,416	22,662	86,777	*86,777*	528,120				
1702	Cambridge Ward	22,434	91,143	340,990	*340,990*	137,580			Insufficient	Insufficient
1703	Maungatautari Ward	4,429	15,991	39,876	*39,876*	-	Insufficient	Insufficient	Insufficient	Insufficient
1704	Te Awamutu Ward	29,438	74,914	174,146	*174,146*	60,380		Insufficient	Insufficient	Insufficient
1705	Kakepuku Ward	20,031	54,954	103,003	*103,003*	119,340				
TOTAL		83,748	259,664	744,792	744,792	845,420				

7.5 FPP Level Results

At the Total Future Proof Partners level, the plan enabled capacity across all three broad economic areas is sufficient to meet the anticipated growth needs. Figure 7.37 shows that Commercial and Retail land demand over the long term is significantly less than the amount of land provided for in the District plans. In fact, other than Commercial land in Waipa District, all demand is less than 20% of supply.

Figure 7.37: Future Proof Business Land Sufficiency Summary (ha)

	Demand Growth (Ha)			TOTAL LAND (ha)	Sufficiency Measure		
Sector by TA	**Short Term**	**Medium Term**	**Long Term**		**Short Term**	**Medium Term**	**Long Term**
Commercial							
Hamilton City	15.0	69.1	86.7	642.7			
Waikato District	3.2	10.6	33.5	345.6			
Waipa District	5.7	13.9	29.9	77.9			
TOTAL FUTURE PROOF	23.9	93.7	150.1	1,066.2			
Retail							
Hamilton City	6.2	20.1	36.3	185.8			
Waikato District	0.8	3.2	11.4	55.7			
Waipa District	2.5	5.7	11.3	69.8			
TOTAL FUTURE PROOF	9.5	29.0	59.0	311.3			
Industrial							
Hamilton City	110.1	318.0	524.4	697.4			
Waikato District	22.8	77.1	209.4	299.2			
Waipa District	22.3	58.6	147.2	193.2			
TOTAL FUTURE PROOF	155.2	453.7	881.0	1,189.8			

Demand for Industrial land is far closer to supply over the long term. While demand in no district exceeds supply in the long term they are all approximately 70% - 75% of supply. In the

Figure 7.38: Future Proof Business Space Sufficiency Summary (sqm GFA)

Sector by TA	Demand Growth (GFA sqm)			TOTAL Space (GFA sqm)	Sufficiency Measure		
	Short Term	Medium Term	Long Term		Short Term	Medium Term	Long Term
Commercial							
Hamilton City	53,689	164,829	402,548	16,873,743			
Waikato District	18,535	76,653	216,885	4,415,300			
Waipa District	15,698	56,508	189,126	1,100,800			
TOTAL FUTURE PROOF	87,922	297,990	808,558	22,389,843			
Retail							
Hamilton City	30,179	68,274	118,070	943,519			
Waikato District	4,562	21,742	69,983	592,400			
Waipa District	4,044	17,188	61,751	551,630			
TOTAL FUTURE PROOF	38,785	107,204	249,804	2,087,549			
Industrial							
Hamilton City	101,460	303,790	767,080	5,009,853			
Waikato District	95,008	386,435	932,958	2,094,000			
Waipa District	69,790	216,386	647,645	845,420			
TOTAL FUTURE PROOF	266,259	906,612	2,347,683	7,949,273			

7.6 MCA Sufficiency Results

In this section results from the multi-Criteria analysis are placed alongside the sufficiency tables to highlight any mismatches between areas where Council are providing for capacity, areas that are growing strongly and the areas that appear to have the most favourable development characteristics.

Note that in this section, the MCA has been applied at a lower than Ward level to land demand and capacity only.

7.6.1 Hamilton City MCA

Figure 7.39: Hamilton City Commercial Land Sufficiency and MCA Scores

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term	Total Vacant Land (ha)	MCA Score
1	Te Rapa North	1.4	3.1	10.2	-	61
2	Te Rapa	0.2	4.0	4.8	45.7	83
3	Rotokauri	4.7	21.1	24.4	190.2	73
4	Norton	0.1	0.3	0.3	0.1	58
5	Dinsdale	-0.6	0.7	1.0	3.0	55
6	Temple View	1.1	5.9	6.8	17.3	45
7	Frankton	0.2	0.7	0.8	15.8	66
8	Glenview	0.7	1.0	1.0	0.4	59
9	Peacocke	1.3	13.9	16.4	0.7	54
10	Hillcrest	0.9	1.5	1.7	1.7	58
11	Hamilton East	0.9	5.2	6.0	2.4	67
12	Ruakura	-1.1	-0.9	-0.8	325.2	75
13	Chedworth-Fairview Downs	3.9	4.3	4.4	1.0	61
14	Claudelands	-1.4	-6.6	-7.7	1.2	60
15	Chartwell	0.2	0.6	0.7	0.1	62
16	Rototuna	0.3	6.0	7.1	18.6	59
17	Saint Andrews	0.1	0.2	0.2	0.1	60
18	Forest Lake	0.3	0.9	1.0	0.3	61
19	CBD	1.1	4.8	5.5	8.0	89
20	Hamilton Lake	0.5	2.5	2.9	10.8	61
Total		**15.0**	**69.1**	**86.7**	**642.7**	

For the most part, there is alignment between areas with high amount of capacity and areas that score highly via the MCA process for Commercial land. The top four MCA score areas - i.e. those that score over 70 out of 100 points make up over 88% of the available land capacity. This indicates that Hamilton City Council's plan provisions closely match the commercial development market Figure 7.39.

As with Commercial, Retail land is well aligned with areas that show the most potential for development. Of the areas that score over 70% in Hamilton account for 83% of total plan enabled capacity (Figure 7.40).

Figure 7.40: Hamilton City Retail Land Sufficiency and MCA Scores

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term	Total Vacant Land (ha)	MCA Score
1	Te Rapa North	0.0	0.0	0.0	-	63
2	Te Rapa	-0.6	0.0	1.7	8.4	89
3	Rotokauri	0.0	0.7	3.0	83.5	72
4	Norton	0.1	0.1	0.0	-	68
5	Dinsdale	-0.1	0.3	0.7	0.1	66
6	Temple View	0.0	0.0	0.0	17.3	60
7	Frankton	0.1	0.6	1.8	1.7	71
8	Glenview	0.1	0.2	0.1	0.0	69
9	Peacocke	0.0	0.0	0.0	0.7	66
10	Hillcrest	0.1	0.3	0.4	0.0	67
11	Hamilton East	1.2	2.2	2.9	0.8	73
12	Ruakura	1.6	9.3	16.3	52.1	70
13	Chedworth-Fairview Downs	0.5	0.8	0.9	0.6	71
14	Claudelands	1.6	2.0	1.5	1.2	62
15	Chartwell	0.0	0.1	-0.4	0.1	76
16	Rototuna	0.7	1.0	1.4	11.2	71
17	Saint Andrews	0.0	0.0	-0.1	0.0	62
18	Forest Lake	0.5	0.7	0.6	0.1	64
19	CBD	0.2	1.7	5.2	7.4	88
20	Hamilton Lake	0.0	0.2	0.4	0.5	61
Total		**6.2**	**20.1**	**36.3**	**185.8**	

Hamilton City's industrial land supply most closely aligns with high development potential areas. Those that score over 70% account for 97% of total plan enabled capacity. This is unsurprising as Hamilton's industrial capacity is more concentrated into fewer appropriate areas than commercial or retail.

Figure 7.41: Hamilton City Retail Land Sufficiency and MCA Scores

ME Zone Number	ME Zone	Short Term	Medium Term	Long Term	Total Vacant Land (ha)	MCA Score
1	Te Rapa North	-2.3	-2.1	-0.9	193.6	85
2	Te Rapa	6.5	15.9	25.4	42.5	91
3	Rotokauri	47.2	175.7	243.1	106.8	89
4	Norton	5.9	35.9	65.6	0.1	62
5	Dinsdale	1.2	3.3	5.1	2.3	57
6	Temple View	0.1	0.6	4.1	-	50
7	Frankton	0.4	6.7	23.5	13.9	77
8	Glenview	6.3	22.2	73.2	0.3	62
9	Peacocke	0.0	1.0	3.3	-	59
10	Hillcrest	8.1	11.3	13.7	1.7	55
11	Hamilton East	0.0	1.2	4.5	1.3	58
12	Ruakura	4.9	4.5	14.2	325.2	80
13	Chedworth-Fairview Downs	0.5	0.8	1.3	0.4	62
14	Claudelands	-0.1	0.2	2.5	-	55
15	Chartwell	2.3	1.9	-4.4	-	60
16	Rototuna	10.6	14.0	14.9	-	63
17	Saint Andrews	9.7	10.0	10.7	0.1	58
18	Forest Lake	0.1	0.3	1.1	0.1	57
19	CBD	0.3	1.7	5.7	-	62
20	Hamilton Lake	8.4	12.9	17.7	9.1	58
Total		**110.1**	**318.0**	**524.4**	**697.4**	

In summary, Hamilton City's plan enabled capacity clearly aligns with areas that score well through the MCA process. This means that Hamilton City's capacity is likely to be developed in line with demand, that there are unlikely to be significant issues that may halt development or cause bottlenecks in supply of land to meet growth needs.

7.6.2 Waikato District MCA

Development areas in Waikato District, in general score lower than those in Hamilton City. Only the Industrial land competes effectively with Hamilton City from a development perspective. This is to be expected as the size and growth potential in the urban parts of the FPP area are much more attractive to commercial and retail land developers, whereas Industrial developers are likely to be seeking lower cost land with fewer sensitive neighbours making Waikato and Waipa more attractive.

Figure 7.42: Waikato District Commercial Land Sufficiency and MCA scores

CAU Code	CAU Name	Commercial Demand (ha) Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	TOTAL SUPPLY (ha)	MCA Score
521131	Pokeno	0.1	1.4	8.0	58.4	44
526200	Tuakau	0.2	0.6	0.9	20.4	45
526500	Raglan	0.4	1.3	2.9	1.6	34
526900	Te Kauwhata	0.1	0.5	1.1	6.6	31
527222	Meremere	0.0	0.0	0.1	1.1	37
527401	Huntly West	0.1	0.3	0.7	6.3	51
527402	Huntly East	0.2	0.9	3.1	1.6	51
527916	Horotiu	0.1	0.4	1.2	87.5	42
528200	Ngaruawahia	0.3	0.7	2.1	3.5	45
	Other Areas	1.4	4.4	13.4	158.6	
TOTAL		3.2	10.6	33.5	345.6	

Of the areas assessed there is a reasonable match between areas that score highly for commercial land development and capacity. The largest Area units all score in the upper middle range across Waikato District.

Waikato Retail land is also reasonably aligned, with the two largest plan enabled capacity area units scoring in the upper middle bracket.

Figure 7.43: Waikato District Retail Land Sufficiency and MCA Scores

CAU Code	CAU Name	Commercial Demand (ha) Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	TOTAL SUPPLY (ha)	MCA Score
521131	Pokeno	0.0	0.6	3.6	5.6	52
526200	Tuakau	0.1	0.2	0.4	15.9	47
526500	Raglan	0.2	0.5	0.9	1.4	39
526900	Te Kauwhata	0.0	0.2	0.4	2.2	32
527222	Meremere	0.0	0.0	0.0	-	39
527401	Huntly West	0.0	0.1	0.2	2.6	61
527402	Huntly East	0.1	0.5	2.1	0.7	61
527916	Horotiu	0.0	0.1	0.2	1.9	39
528200	Ngaruawahia	0.1	0.1	0.6	0.2	49
	OTHER AREAS	0.3	0.9	3.0	25.2	
TOTAL		0.8	3.2	11.4	55.7	

As with Hamilton City, Industrial land plan enabled capacity is more closely aligned with the MCA scores. The large areas of capacity all score highly on the MCA framework meaning there is a good fit between planning provisions and development potential.

Figure 7.44: Waikato District Retail Land Sufficiency and MCA Scores

CAU Code	CAU Name	Commercial Demand (ha) Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	TOTAL SUPPLY (ha)	MCA Score
521131	Pokeno	1.4	6.2	40.7	53.9	66
526200	Tuakau	1.0	2.6	4.6	4.2	59
526500	Raglan	1.2	2.4	3.3	-	34
526900	Te Kauwhata	0.4	1.9	4.8	5.4	41
527222	Meremere	0.0	0.2	0.5	1.1	58
527401	Huntly West	1.2	2.7	5.7	3.7	73
527402	Huntly East	1.2	3.8	11.0	3.6	73
527916	Horotiu	5.6	23.7	54.6	89.7	72
528200	Ngaruawahia	0.5	1.4	4.0	4.1	53
	OTHER AREAS	10.2	32.1	80.3	133.6	
TOTAL		22.8	77.1	209.4	299.2	

7.6.3 Waipa District MCA

Development potential in Waipa District is really limited to the two large urban centres (Cambridge and Te Awamutu and Titanium Park contained within the Lake Cameron CAU). Lack of differentiation within each of these areas means the MCA is limited. What it does tell us is that the majority of commercial plan enabled capacity identified scores lower than the rest. This is because Titanium Park does not score as strongly as Cambridge or Te Awamutu given its location away from the population centres of Waipa.

This pattern is repeated across both Retail and Industrial areas (Figure 7.45, Figure 7.46 and Figure 7.47).

Figure 7.45: Waipa District Commercial Land Sufficiency and MCA Scores

CAU Code	CAU Name	Commercial Demand (ha) Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	TOTAL SUPPLY (ha)	MCA Score
527501	Cambridge North	0.0	0.1	0.3	-	64
527502	Cambridge West	0.5	1.0	1.3	-	64
527503	Cambridge Central	0.2	0.5	1.1	0.9	64
527504	Leamington West	0.1	0.3	1.3	0.6	64
527505	Leamington East	0.0	0.1	0.2	-	64
527915	Lake Cameron	1.2	2.3	3.5	60.1	42
531001	Te Awamutu West	0.1	0.2	0.3	-	60
531002	Te Awamutu Central	0.2	0.5	1.3	0.6	60
531003	Te Awamutu East	0.2	0.4	0.8	0.3	60
531004	Te Awamutu South	0.2	0.6	1.6	0.3	60
		2.8	8.0	18.2	15.1	
TOTAL		5.7	13.9	29.9	77.9	

Figure 7.46: Waipa District Retail Land Sufficiency and MCA Scores

CAU Code	CAU Name	Retail Demand (ha) Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	TOTAL SUPPLY (ha)	MCA Score
527501	Cambridge North	0.0	0.0	0.1	-	66
527502	Cambridge West	0.3	0.5	0.6	-	66
527503	Cambridge Central	0.1	0.5	1.4	0.9	66
527504	Leamington West	0.0	0.1	0.3	0.6	66
527505	Leamington East	-	0.0	0.0	-	66
527915	Lake Cameron	0.6	1.1	1.6	64.1	48
531001	Te Awamutu West	0.1	0.1	0.1	-	59
531002	Te Awamutu Central	0.1	0.2	0.6	0.6	59
531003	Te Awamutu East	0.2	0.3	0.6	0.3	59
531004	Te Awamutu South	0.1	0.3	0.6	0.3	59
Other Areas		1.1	2.6	5.3	3.0	
TOTAL		2.5	5.7	11.3	69.8	

Figure 7.47: Waipa District Industrial Land Sufficiency and MCA Scores

CAU Code	CAU Name	Industrial Demand (ha) Short Term 0 to 3	Medium Term 0 to 10	Long Term 0 to 30	TOTAL SUPPLY (ha)	MCA Score
527501	Cambridge North	0.4	0.9	2.4	-	70
527502	Cambridge West	0.3	0.9	1.9	-	70
527503	Cambridge Central	2.0	4.9	11.5	0.6	70
527504	Leamington West	1.9	4.2	10.1	1.3	70
527505	Leamington East	0.3	0.6	1.3	-	70
527915	Lake Cameron	4.2	10.6	23.2	102.6	58
531001	Te Awamutu West	0.6	1.1	2.3	4.1	64
531002	Te Awamutu Central	1.0	2.4	6.0	0.9	64
531003	Te Awamutu East	1.7	3.9	8.1	3.9	64
531004	Te Awamutu South	1.1	2.5	6.7	0.1	64
Other Areas		8.8	26.6	73.8	79.8	
TOTAL		22.3	58.6	147.2	193.2	

7.7 Conclusions

In general, the MCA framework has aligned well with Plan enabled capacity across the FPP area. The notable exception is in the Waipa area, where the majority of capacity in each of the three broad areas is located in the lowest scoring MCA group. This may means that uptake of this land may be slower than growth in demand indicates. When aligned with the limited vacant capacity within the rest of Waipa (as discussed in the sufficiency sections above), means that Waipa District will need to monitor uptake and land use closely to ensure it provides sufficient capacity.

Overall the various Future Proof Partners have, through their planning documents, structure plans and other strategic documents, made sound provision for growth in demand for business land and floorspace. The potential pressure likely to be felt in Waipa District with respect to land is not necessarily reflected in floorspace as commercial floorspace co-exists with retail ground floorspace well. What it may indicate is that there is pressure brought to bear on existing business land areas to maximise their potential across the Cambridge and Te Awamutu areas. Redevelopment potential tends to occur when other options are either not available or are poorly located or too expensive as redevelopment is relatively costly and carries a higher risk.

Key points include;

- Lack of obvious vacant capacity in Cambridge and Te Awamutu for retail and commercial activities.
- In general, the gap between Industrial land supply and industrial land demand is closer than for either retail or commercial. This means Councils should be particularly vigilant in terms of monitoring uptake and usage of industrial land. Industrial land is particularly sensitive to being used for other purposes. Due to its relatively low value, it is often targeted by large format retail operators who seek large footprint sites at relatively low cost. As they are destinations in and of

themselves, they have the ability to drive trade their way. This changes the dynamics of cities and can lead to very significant adverse outcomes as trade is drawn away from traditional centres impacting on their ability to function and deliver amenity to the city.

- High level of cross over between retail and commercial in terms of land requirements means that they could potentially be viewed as a single entity.
- Reasonably strong alignment between results of the MCA framework and plan enabled capacity indicate Councils are zoning land that is appropriately located and is likely to meet developer requirements.
- Price is the key factor when establishing whether land will be developed or not. Land price encompasses a range of the variables identified within the MCA. Price is often the first hurdle to development, but not the only factor. While it is important to get the price right, price will not necessarily compensate for deficiencies in either location or other physical characteristics of a parcel of land.

7.8 Monitoring

As discussed throughout Section 7, ME recommend that the Councils carry out a range of monitoring of business land development, uptake and redevelopment. While most areas appear to be well served by plan enabled capacity and that this capacity appears to be well chosen within the development MCA framework, there are areas of concern which requires Council to carry out monitoring. Some monitoring is already carried out under the NPS-UDC, however, these areas are additional to the price and consent monitoring covered there.

Concerns and monitoring areas include;

- The key area of concern is industrial capacity in Waipa District. Council should be particularly vigilant in terms of monitoring uptake and usage of industrial land, especially in the major centres, Cambridge and Te Awamutu. Industrial land is particularly sensitive to being used for other purposes. Due to its relatively low value, industrial land is often targeted by large format retail operators, for example, who seek large footprint sites at relatively low cost. This in turn has adverse flow-on effects for the district's traditional centres.
- It will also be helpful to monitor the update of all vacant business land to understand the rate, space type and GFA of that development. Especially in the major centres and at Titanium Park where the majority of capacity exists for Waipa.
- All Councils will need to monitor the development of retail and commercial floorspace across the major centres to assess the impact of out of centre developments – in particular retail in Te Rapa and impact on Hamilton CBD.
- Monitoring the redevelopment of existing sites – by location and land use type. If capacity is provided by increasing the number of storeys, this should be identified and tracked by location.

- Monitor the spread of non-rural industrial activity into rural areas – by location and type.
- Monitor the actual occupation of development by activity type (using an ANZSIC framework) to understand how locational trends might be shifting.
- Waipa and Waikato are advised to monitor closely the uptake of commercial retail and industrial land – especially in the key centres (Huntly, Cambridge, Te Awamutu). Monitoring of building consents and the nature of occupation by ANZSIC to ensure locational trends are captured.
- Last, Councils are advised to monitor trends in business and employment activity occurring in non-business zones in the urban environment.

8 Future Updates

The NPS-UDC requires high growth Councils to carry out this assessment every three years. This means that it is important that the 2017/18 study forms an appropriate baseline from which future change can be measured. The important point from the assessment is that the FPP have ensured that there is sufficient business land capacity to cater for anticipated growth in the short to medium term (with a few localised exceptions). Given that the long term covers 30 years, shortfalls identified at that extreme are areas that will cause Councils to consider, but they are unlikely to be significantly impacted in terms of land use decisions made in the near future.

The most important thing Councils can do to ensure they remain in touch with growth and change, is to constantly monitor business land development. By consistently updating datasets on development and occupancy, Councils will be well placed to address development and broader economic trends as they begin to emerge.

8.1 Overview of Process

The process followed in this report is based strongly on that outlined in the Guidance on Evidence and Monitoring, published by MfE and MBIE, June 2017. The overall purpose and intent of the work is to provide Councils with more information, such that they are able to make better informed decisions about business land.

The assessment process breaks down into 2 workstreams; a Demand Assessment based on an economic futures model, and a Capacity assessment based on existing supply. The capacity is estimated based on Council data including spatial data and property ratings data. Assumptions and results of the capacity assessment are also 'ground-truthed' by Council to ensure they truly reflect current conditions. These are brought together at the end to draw conclusions about sufficiency of the various plans to provide for capacity.

In addition, the development community is consulted to provide inputs into an assessment framework covering the potential of different pieces of land to be developed. This picks up on locational and physical characteristics of the areas development opportunities and provides a weighting in terms of how important each aspect is to the development decision. Each broad area is then assessed against this framework to produce an overall development score out of 100.

By aligning the MCA scores with the sufficiency results it becomes clear whether the district plans are providing capacity in appropriate locations on appropriate land.

It is the combination of volume of land and how appropriate it is that provides the final measure of sufficiency.

8.2 Key Issues Faced

There have been a few issues faced in preparing this report;

1. The key issue faced in preparing this assessment of business land sufficiency has been the state of the base data sets. Significant time is needed to align the core datasets – ratings database, planning zone shapefiles, structure plan information and other sets of spatial data.

   While the overall process is a relatively simple one – assuming a set of robust reasonably granular economic projections can be sourced or produced, issues with the capacity information have significantly impacted on the delivery timings of this report.

2. Incorporating new or updated data sets has compounded issues associated with the base data. Re-configuring the model to incorporate new or different information can cause issues and errors which did not previously exist. As well as requiring reconfiguring of the model, new data sets may require realignment of the base data where new inconsistencies have arisen between the two.

3. Translation of activity tables into distinct amounts of capacity across each core economic category. Often land has permissive zoning – especially deferred business development land. This means that allocating capacity between the economic codes is problematic as there is no way to tell which type of business will out bid the other into the future. This requires Councils to continually monitor the uptake and occupancy of business land, to ensure that all sectors of the growth economy are provided for and changing trends can be applied in future updates.

8.3 Key Learnings

There have been a number of learnings over the course of this project that can usefully be applied in future. The first relates to capacity data. Having established with Council the type and nature of data required to carry out this work, it will be a much simpler task in future to update the plan enabled capacity. Now that the FPP and M.E know what data is required for future updates, a comprehensive list can be created and supplied to all involved that defines the key datasets and inclusions into those.

The second key learning is that a point needs to be reached whereby all data received is final, so that cogent and efficient modelling can be undertaken without further issues being created toward the end of the process. This lesson goes hand in hand with lesson one above and may be informed by inter-departmental communication within Councils and M.E.

The third and final relates to the monitoring of data. After bringing the data together, it has become clear where gaps exist in the data. Several of these gaps are due to non-existent data, while others are due to old or out-of-date data. Monitoring of business land uptake and trends help with both future capacity and help with ground-truthing exercises.

Appendix 1 – NPS Objectives

Objectives

The following objectives apply to all decision-makers when making planning decisions that affect an urban environment.

Objective Group A – Outcomes for planning decisions

OA1: Effective and efficient urban environments that enable people and communities and future generations to provide for their social, economic, cultural and environmental wellbeing.

OA2: Urban environments that have sufficient opportunities for the development of housing and business land to meet demand, and which provide choices that will meet the needs of people and communities and future generations for a range of dwelling types and locations, working environments and places to locate businesses.

OA3: Urban environments that, over time, develop and change in response to the changing needs of people and communities and future generations.

Objective Group B – Evidence and monitoring to support planning decisions

OB1: A robustly developed, comprehensive and frequently updated evidence base to inform planning decisions in urban environments.

Objective Group C – Responsive planning

OC1: Planning decisions, practices and methods that enable urban development which provides for the social, economic, cultural and environmental wellbeing of people and communities and future generations in the short, medium and long-term.

OC2: Local authorities adapt and respond to evidence about urban development, market activity and the social, economic, cultural and environmental wellbeing of people and communities and future generations, in a timely way.

Objective Group D – Coordinated planning evidence and decision-making

OD1: Urban environments where land use, development, development infrastructure and other infrastructure are integrated with each other.

OD2: Coordinated and aligned planning decisions within and across local authority boundaries.

Appendix 2 – EFM Drivers of Growth

The economic projections of the EFM are driven by a set of "Business as Usual" commodity and service parameters, translated into demands. However, the key drivers of future demand are based on projections of population growth and tourism flows provided by Rationale. In the Input-Output framework (the basis of the Multi-Regional Input-Output Table (MRIO)) these demands are termed 'final demands'.

Within the model final demands are made up of five categories: household consumption, international exports, inter-regional exports, gross fixed capital formation (GFKF), and changes in inventory. The process for deriving future BAU estimates for each category is as follows:

a) Household Consumption: The household consumption final demand is made up of four sub-consumption categories, 'Households', 'Private non-profit institutions servings households', 'Central Government' and 'Local Government'. Future estimates of demand in each sub-category is primarily driven by changes in future population. The Model uses Rationales recommended projections covering all of QLD. It is assumed that each person within the region consumes a constant mix of goods and services. Thus, any population growth for the area will result in a proportional increase in the amount of goods and services consumed within each sub-category.

   In addition, the model includes the implications of changing demographic structure on household consumption. For all sub-categories, future demands by each cohort are adjusted by a cohort-specific consumption scalar. These scalars define the ratio of spending by an average person across all cohorts, to the spending of an average person within the subject cohort.

   The resulting value for a particular year provides an estimate of the growth in total household consumption from the base year.

b) International Exports: are overseas demand of goods and services produced by an area and are exogenous inputs to the model. The growth projections used include BAU projections of international exports and future projections for each industry are generated by applying long-run average growth rates to the base year international export values as obtained from the MRIO. The exception to this is for sectors that are driven primarily by tourism flows. For these, growth projections of tourism nights developed by Rationale have been used in place of the long run averages for the export performance of the Accommodation, retail, transport, recreational activity and personal services sectors.

   The growth rates were generated using a number of different statistical methods. Selection of the time series techniques applied depended on the availability of the data and underlying production structure of the industry output being analysed. For example, long-run growth rates for agricultural industries were estimated based on long-run projections of physical stocks and land availability constraints. Conversely, industries with less physical constraints, such as services, were estimated based on long-run national export trends. The data utilised in these time series analyses were derived from SNZ's Overseas Trade Exports – Trade, Merchandise: Monthly Estimates of all Harmonised System Items 1989–2014.

c) Inter-regional Exports: are demands of good and services produced within a study area by areas outside the study area, but within New Zealand. In other words, trades between QLD areas and the rest of New Zealand affects demand for the production activities in each area.

d) Gross Fixed Capital Formation (GFKF): Future increases in investment demand are represented as a change in GFKF and is an exogenous input into the model. The future GFKF projections for each industry is generated by applying long-run average growth rates to the base year GFKF values as obtained from the MRIO. The growth rates were determined by econometric time-series analysis. The data utilised in the time-series analysis of GFKF are derived from SNZ's National Accounts gross fixed capital formation by industry time series.

e) Changes in Inventory: these are an endogenous variable within the model, where future projections are the weighted average of future values of other final demand categories. Within the national accounts framework, the changes in inventory is an accounting balancing item and records changes in financial inventory stocks. Note: for many industries changes in inventory are very small compared with international exports, inter-regional exports, and GFKF.

Appendix 3 – Sector to Land Use Relationships

48 Sector Description	Office---Commercial	Office---Retail	Shops---Commercial	Shops---Food and Beverage	Accommodation	Warehouse	Factory	Yard---Commercial	Yard---Industrial	Other.Built---Commercial	Other.Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	Total
Horticulture and fruit growing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	90%	100%
Sheep, beef cattle and grain farming	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	90%	100%
Dairy cattle farming	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	90%	100%
Poultry, deer and other livestock farming	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	90%	100%
Forestry and logging	0%	0%	0%	0%	0%	0%	9%	0%	17%	0%	0%	0%	0%	0%	74%	100%
Fishing and aquaculture	0%	0%	0%	0%	0%	19%	0%	0%	0%	0%	47%	0%	0%	0%	35%	100%
Agriculture, forestry and fishing support services	20%	0%	0%	0%	0%	20%	20%	0%	0%	0%	0%	0%	40%	0%	0%	100%
Mining, quarrying, exploration and other mining support services	0%	0%	0%	0%	0%	0%	10%	0%	20%	0%	0%	0%	70%	0%	0%	100%
Oil and gas extraction	0%	0%	0%	0%	0%	0%	10%	0%	20%	0%	0%	0%	70%	0%	0%	100%
Meat and meat product manufacturing	2%	0%	0%	0%	0%	23%	75%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Dairy product manufacturing	2%	0%	0%	0%	0%	11%	88%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Other food manufacturing	2%	0%	0%	0%	0%	17%	69%	0%	12%	0%	0%	0%	0%	0%	0%	100%
Beverage and tobacco product manufacturing	2%	0%	0%	0%	0%	23%	75%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Textile, leather, clothing and footwear manufacturing	2%	0%	0%	0%	0%	12%	83%	0%	2%	0%	0%	0%	0%	0%	0%	100%
Wood product manufacturing	2%	0%	0%	0%	0%	11%	60%	0%	28%	0%	0%	0%	0%	0%	0%	100%
Pulp, paper and converted paper product manufacturing	2%	0%	0%	0%	0%	20%	63%	0%	16%	0%	0%	0%	0%	0%	0%	100%
Printing	2%	0%	0%	0%	0%	21%	78%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Petroleum and coal product manufacturing	2%	0%	0%	0%	0%	11%	20%	0%	68%	0%	0%	0%	0%	0%	0%	100%
Chemical, polymer and rubber product manufacturing	2%	0%	0%	0%	0%	20%	63%	0%	16%	0%	0%	0%	0%	0%	0%	100%
Non-metallic mineral product manufacturing	2%	0%	0%	0%	0%	11%	50%	0%	38%	0%	0%	0%	0%	0%	0%	100%
Primary metal and metal product manufacturing	2%	0%	0%	0%	0%	6%	60%	0%	33%	0%	0%	0%	0%	0%	0%	100%
Fabricated metal product manufacturing	2%	0%	0%	0%	0%	38%	40%	0%	20%	0%	0%	0%	0%	0%	0%	100%
Transport equipment manufacturing	2%	0%	0%	0%	0%	11%	68%	0%	20%	0%	0%	0%	0%	0%	0%	100%
Machinery and equipment manufacturing	2%	0%	0%	0%	0%	11%	68%	0%	20%	0%	0%	0%	0%	0%	0%	100%
Furniture and other manufacturing	2%	0%	0%	0%	0%	11%	68%	0%	20%	0%	0%	0%	0%	0%	0%	100%
Electricity generation and supply	9%	0%	0%	0%	0%	14%	0%	0%	18%	0%	58%	0%	0%	0%	0%	100%
Gas supply	0%	0%	0%	0%	0%	15%	0%	0%	20%	0%	65%	0%	0%	0%	0%	100%
Water, sewerage, drainage and waste services	2%	0%	0%	0%	0%	15%	0%	0%	27%	0%	56%	0%	0%	0%	0%	100%
Construction	2%	0%	0%	0%	0%	15%	6%	0%	16%	31%	31%	0%	0%	0%	0%	100%
Wholesale trade	5%	0%	0%	0%	0%	95%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Retail Trade	0%	0%	66%	0%	0%	0%	0%	34%	0%	0%	0%	0%	0%	0%	0%	100%
Accommodation and food services	0%	0%	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Road transport	3%	0%	0%	0%	0%	10%	10%	0%	78%	0%	0%	0%	0%	0%	0%	100%
Other transport, postal, courier, transport support and warehousing services.	5%	0%	0%	0%	0%	21%	10%	0%	24%	0%	40%	0%	0%	0%	0%	100%
Air and space transport	10%	0%	0%	0%	0%	10%	60%	0%	10%	0%	10%	0%	0%	0%	0%	100%
Information media and telecommunications	59%	0%	0%	0%	0%	23%	18%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Finance	98%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	100%
Insurance and superannuation funds	98%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	100%
Auxiliary finance and insurance services	98%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	100%
Rental, hiring and real estate services	14%	15%	6%	0%	0%	12%	0%	12%	10%	3%	0%	0%	0%	0%	27%	100%
Owner Occupied Dwellings	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Professional, scientific, technical, administrative and support services	22%	0%	27%	0%	0%	15%	10%	0%	13%	13%	0%	0%	0%	0%	0%	100%
Central government administration, defence and public safety	16%	0%	0%	0%	0%	10%	0%	0%	10%	56%	0%	0%	10%	0%	0%	100%
Local government administration	50%	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	100%
Education and training	27%	0%	19%	0%	0%	0%	0%	0%	0%	0%	0%	54%	0%	0%	0%	100%
Health care and social assistance	17%	21%	21%	0%	0%	0%	0%	0%	0%	40%	0%	0%	0%	0%	0%	100%
Arts and recreation services	25%	0%	29%	0%	0%	3%	3%	0%	0%	40%	0%	0%	0%	0%	0%	100%
Personal and other services	11%	0%	39%	0%	0%	14%	10%	0%	0%	26%	0%	0%	0%	0%	0%	100%

Source: M.E., based on national averages

Appendix 4 - Evaluation Criteria Index

The following table identifies the section(s) of this BDCA that are relevant to each of the criteria identified in the MBIE Evaluation Sheet (DRAFT, November 2017). It is included as a check list for M.E and Council and to assist with MBIE's evaluation.

Content	
The assessment produces an estimate of demand for business space in the short, medium and long term.	
Does the assessment provide a rigorous narrative on the key sectors, trends and possible future changes in the local economy? *Does this cover broad sectoral composition, employment densities, spatial characteristics and emerging trends and the sectors that are expected to drive future land/space demands?*	Section 3.1 covers all sectors by TA within FPP, along with distribution. Section 3.2 looks at recent change over past 16 years by sector, by TA. Section 3.3 provides sector and location specific projections and discusses key driving sectors.
Does the assessment analyse different business demands for different locations, property types, sizes and tenure?	Section 4 focuses on demand by sector translated into land and GFA, by location and space type.
Does the assessment contain future medium and long term projections of demand (especially for industrial land) by discussing the key drivers to business demand space?	Section 4.2: By subzone and ward within each TA in FPP. Appendix 3
The assessment produces an estimate of capacity for business space	
Does the assessment reasonably identify all business development capacity enabled by relevant proposed and operative RPSs, regional plans and district plans (including a stocktake of vacant land by zone and type and redevelopment potential), and is the assessment clear about what enabled capacity is also supported by development infrastructure?	Section 4.3 Yes, Section 4 and Section 7
Have these assessments been qualitatively assessed or ground-truthed*? For example have they been tested and supplemented by visual inspections or surveys of business occupiers?*	Section 5.1
Does the assessment consider the feasibility of capacity, particularly for industrial land? *E.g. has a multicriteria analysis been used?* *Are the methods and assumptions used in this assessment clear?*	Section 6 describes the process Section 7.6 presents results.

Is there a rigorous conclusion on whether development capacity for business is sufficient now and in the short, medium and long terms? *Is there a quantitative comparison between the demand and capacity assessments?* *Is sufficiency measured by zone type, geographical area and in the short, medium and long terms?* *Are there more detailed sufficiency measures for the short and medium terms?* *Are the industrial zone land price differentials used to inform a conclusion about whether zoning matches demand of different activities for particular locations?*	Section 7.6 and 7.7 Section 7.6 Section 7.6 Same level of detail provided for short, medium and longer terms No, price differentials do not inform about necessity of industrial zoned land. Highest and best use a fallacy with respect to Industrial land demand.
Does the assessment analyse the contributing factors to any shortfall in sufficiency*? I.e. how do different factors (enablement in plans, development infrastructure or feasibility) contribute to a shortfall in sufficiency?*	Section 7.6
The assessment considers interactions between housing and business activities and their impact on each other	
Does the assessment consider the interactions between business and housing capacity? *Does the assessment ensure that capacity is not double counted or under- or over-estimated?* *Does it consider the positive and negative spatial interactions between housing and business capacity, and impacts on accessibility and transport?* *Does it analyse barriers and opportunities for development and change?*	Section 5.3 Section 5.3 Section 5.3
The assessment explicitly uses market and price efficiency indicators	
Are results from the quarterly monitoring of market indicators reflected in the assessment and are they consistent with the final assessments of housing and business land sufficiency?	Handled elsewhere in supporting report.
Does the assessment include consideration of price efficiency indicators as a package and an analysis of what these suggest about the sufficiency of supply and location of development capacity?	Handled elsewhere by Council's other reporting
Communication	
Clarity *Is the capacity assessment easy to read and understand?* *Does it use appropriate headings, plain English, exec summary and visuals or spatial information where appropriate?*	Yes Yes

Is it of a readable length?	It is a necessary length to cover the material required.
Narrative *Does the assessment provide a clear narrative about the urban markets for housing and business space and their interaction with land use planning?* *Is the analysis of the indicators clearly grounded in the local context?* *Is it an appropriate level of detail for the local authority in question?*	Section 1 and Section 2 Section 2.3 outlines spatial context Yes
Usefulness to decision-makers *Will the assessment inform targets, plan changes and future development strategies (where relevant), and long term plans?* *Does it draw clear conclusions on the 'so what' and next steps (possibly through a recommendations section)?* *Does it link the HBA to other key responsive planning requirements under the NPS?* *Does it contain the key information necessary for further decisions?* *Are key risks and timing issues highlighted?*	Yes Section 7.7 and Section 7.8, Section 8 N/A Yes Section 8
Process	
Agreement between the relevant councils on the geographic area of focus for the assessment *Is this clearly delineated and does it have some logical basis e.g. the functional market, coordination arrangements, the application of planning decisions?*	Section 2 outlines the spatial framework used.
Local expertise sought and used *Is there evidence that the input of iwi authorities, the property development sector, significant land owners, social housing providers, requiring authorities, and the providers of development infrastructure and other infrastructure has been sought and used?*	Section 1.6 Section 6
Transparency *Are the methodology and assumptions clear, even when work has been procured?* *If there is a disclosure statement, does this detail key gaps, strengths and weaknesses?* *Are options for filling these gaps explored?* *Has consideration been given to releasing the report to the public?*	Yes Section 8.2 Section 8.3

Appendix 5 - Acronyms

The following acronyms can be found in this report:

- ANZSIC – Australia New Zealand Standard Industrial Classification
- BDCA – Business Development Capacity Assessment
- BMU – Business Mixed Use
- EFM – Economic Futures Model
- FDS – Further Development Strategy
- GDP – Gross Domestic Product
- GFA – Gross Floor Area
- GU – Geographic Unit (Business)
- HA – Hectare
- HDCA – Housing Development Capacity Assessment
- LDR – Low Density Residential
- LTP – Long Term Plan
- MCA – Multi Criteria Analysis
- MDR – Medium Density Residential
- M.E – Market Economics Limited
- MEC – Modified Employee Count
- NPS – National Policy Statement
- NPS-UDC – National Policy Statement – Urban Development Capacity
- NZTA – New Zealand Transport Agency
- ODP – Operative District Plan
- EW – Environment Waikato
- PDP – Proposed District Plan
- HCC – Hamilton City Council
- RMA – Resource Management Act 1991
- SHA – Special Housing Area

- SNZ – Statistics New Zealand
- SQM – Square meters
- VA – Visitor Accommodation