Business Development Capacity Assessment 2023

Future Proof Partners: Hamilton City, Waikato District, Waipā District and Waikato Regional Council

3 April 2024 – Final

m.e consulting

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Executive Summary

New Zealand is a highly urbanised economy. The vast majority of people, employees 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 their regions and 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. Well-designed urban areas maximise 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, central government has formulated a national policy statement (NPS) to provide direction to decision makers under the RMA on planning for urban environments. The National Policy Statement on Urban Development 2020 (NPS-UD) aims to ensure that planning decisions enable that the supply of business land within local authority areas is sufficient to meet business demand. The NPS-UD adds updates and amendments to the previous National Policy Statement on Urban Development Capacity 2016 (NPS-UDC).

The NPS-UD contains a number of objectives and policies that aim to meet those objectives. This report aims to assist FPP in meeting policy requirements under Subpart 3 – Evidence-based decision making and Subpart 5 – Housing and Business Development Capacity Assessment (HBA). Clause 3.10 Assessing demand and development capacity states that:

(1) *Every local authority must assess the demand for housing and business land in urban environments, and the development capacity that is sufficient to meet that demand in its region or district in the short term, medium term, and long term, and*
(2) *Tier 1 and tier 2 local authorities comply with subclause (1) in relation to tier 1 and tier 2 urban environments by preparing and publishing an HBA as required by subpart 5.*

As determined by subpart 5 – Housing and Business Development Capacity Assessment (HBA), this report aims to assist fulfil subclauses 3.28 Business land demand assessment, 3.29 Business land development capacity assessment, and 3.30 Assessment of sufficient development capacity for business land.

Clause 3.28 Business land demand assessment requires:

1) *Every HBA must estimate, for the short term, medium term, and long term, the demand from each business sector for additional business land in the region and each constituent district of the tier 1 or tier 2 urban environment.*
2) *The demand must be expressed in hectares or floor areas.*
3) *For the purpose of this clause, a local authority may identify business sectors in any way it chooses but must, as a minimum, distinguish between sectors that would use land zoned for commercial, retail, or industrial uses.*
4) *The HBA for a tier 1 urban environment must:*
   a) *set out a range of projections of demand for business land by business sector, for the short term, medium term, and long term; and*
   b) *identify which of the projections is the most likely in each of the short term, medium term, and long term; and*
   c) *set out the assumptions underpinning the different projections and the reason for selecting which is the most likely; and*
   d) *if those assumptions involve a high level of uncertainty, the nature and potential effects of that uncertainty.*

Clause 3.29 Business land development capacity assessment requires:

1) *Every HBA must estimate the following, for the short term, medium term, and long term, for the region and each constituent district of the tier 1 or tier 2 urban environment:*
   a) *the development capacity (in terms of hectares or floor areas) to meet expected demand for business land for each business sector, plus the appropriate competitiveness margin; and*
   b) *of that development capacity, the development capacity that is:*
      i) *plan-enabled; and*
      ii) *plan-enabled and infrastructure-ready; and*
      iii) *plan-enabled, infrastructure-ready, and suitable for each business sector.*
2) *A local authority may define what it means for development capacity to be "suitable" in any way it chooses, but suitability must, at a minimum, include suitability in terms of location and site size.*

Clause 3.30 Assessment of sufficient development capacity for business land requires:

1) *Every HBA must clearly identify, for the short term, medium term, and long term, whether there is sufficient development capacity to meet demand for business land in the region and each constituent district of the tier 1 or tier 2 urban environment.*
2) *The requirements of subclause (1) must be based on a comparison of:*
   a) *the demand for business land referred to in clause 3.28 plus the appropriate competitiveness margin; and*
   b) *the development capacity identified under clause 3.29.*
3) *If there is any insufficiency, the HBA must identify where and when this will occur and analyse the extent to which RMA planning documents, a lack of development infrastructure, or both, cause or contribute to the insufficiency.*

This assessment contains information on; the current economy, 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.

This report goes further than these base requirements and provides more granular detail on demand growth by different space types and demand types. So called "Wet Industries" have been identified as having particular locational requirements (based on volume of water required in their industrial processes). These industries are aggregated in terms of their future growth profile and reported on separately.

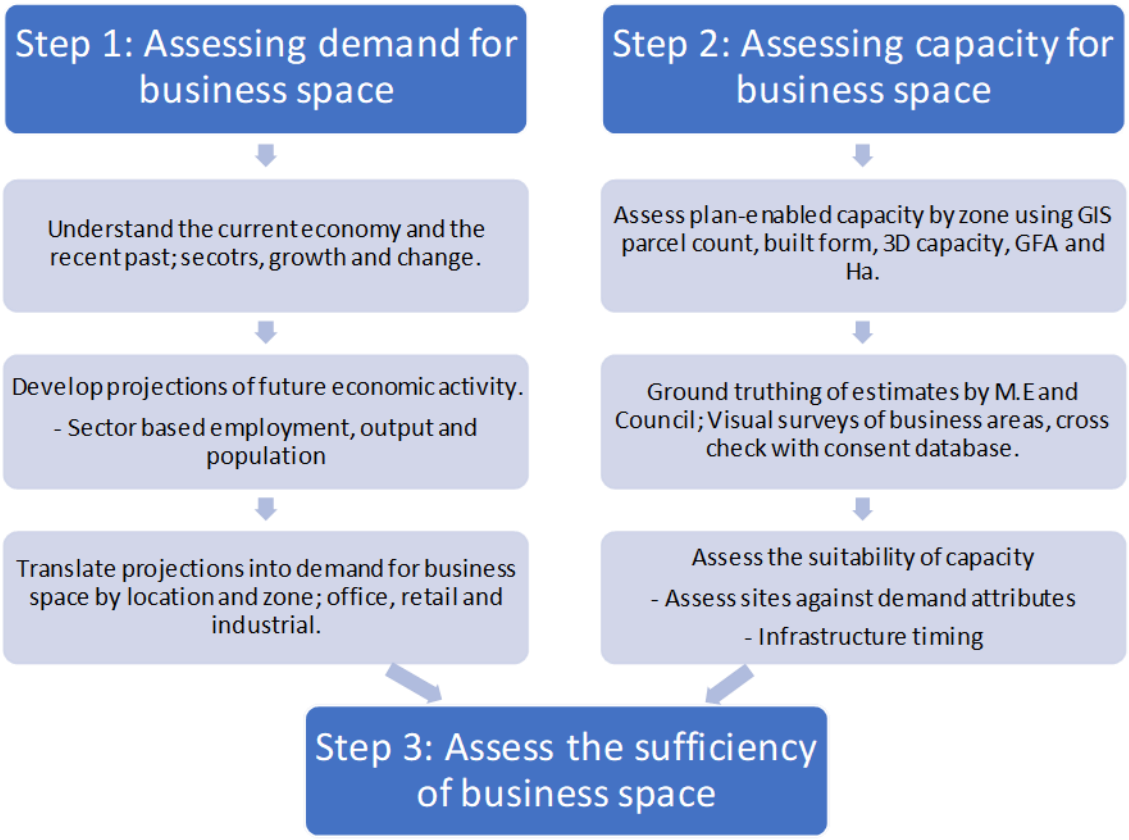
Background

The original Future Proof Partnership (FPP) is made up from the councils of Waikato District, Hamilton City, Waipā District, and Waikato Regional Council. Together these Councils have been identified as a Tier 1 local authorities in the NPS-UD. In accordance with the National Policy Statement – Urban Development 2020 ('NPS-UD' or simply 'NPS'), FPP must complete a Housing and Business Development Capacity Assessment (HBA) within the urban environment every 3 years (Subpart 5, clause 3.19).

As of 2021, Matamata Piako District has been incorporated into the Future Proof Partnership. An assessment of the sufficiency of their business land has been carried out independently of this assessment. However, a summary of the findings of that work are incorporated into this report.

This document fulfils the NPS-UD 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 NPS applies to *"all local authorities that have all or part of an urban environment within their district or region"*. What forms part of an urban environment is therefore important. 'Urban environment' is defined in the NPS as:

Any area of land (regardless of size, and irrespective of local authority or statistical boundaries) that:

a) is, or is intended to be, predominantly urban in character; and
b) is, or is intended to be, part of a housing and labour market of at least 10,000 people.

Together, the original Future Proof Partners (FPP) comprise the tier 1 local authorities that are defined as part of the Hamilton tier 1 urban environment within the NPS. This means that the policies are applied across the district. The following assessment focuses on the entirety of Hamilton City, Waikato District and Waipā District.

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 is enabled on each parcel as determined by the relevant district plans. In addition to the currently zoned land, information from structure plans that relate to

greenfields development has been used to identify the nature, timing, and amount of future capacity enabled on them.

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 retail, manufacturing and utilities reflect its role as the region's prime city. The economies of both Waikato District and Waipā District are reliant on the primary production sector for employment. Primary production is the largest employer in both however Waikato District is much more reliant with 23% of all workers employed in the sector as compared to 15% in Waipā District. 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. Both Waikato and Waipā also have a relatively high number of employees within the construction industry (15% and 14% respectively), mirroring the trend seen across the country.

Other than this, Waikato and Waipā 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 a higher concentration of employees in the Mining sector as demand for aggregate material drives employment in this industry. Waikato has also had a greater increase in the number of manufacturing jobs, with employment in the sector experiencing a 73% increase in the past 10 years as industrial land in Auckland becomes scarce and businesses look across the southern border for land.

Waipā District has more diverse employment compared with Waikato District. Waipā has higher concentrations of retail activity, health care and social assistance, art and recreation services, and other services. These last sectors are important as they capture the high-performance sports facilities and education facilities that Waipā District is beginning to see concentrated around Cambridge (Rowing at Karapiro and Cycling at the Velodrome in Cambridge). This points to a more consumptive, rather than productive economy based around household requirements.

Business Land and Floorspace Demand

In total, employment growth across the FPP area is expected to increase from a base of 163,500 in 2022 to 229,300 MECs by 2052. That is an average of 1.1% annually over the 30-year period to 2052 or just over 40% in total. Over the next three years the employment growth rate is expected to be 1.7% annually. Between 2025-2032 this is drops to 1.4% annually, dropping to 1.0% annually between 2032 and 2052[1] as population growth declines.

The most employment growth out to 2052 occurs in manufacturing adding 7,570 MECs and professional services with 7,230 MECs. Education and training (+7,110 MECs) and the construction sector (+6,970 MECs) are also set to experience significant employment growth over the 30-year period to 2052. In percentage terms the highest growth occurs in Financial and Insurance Services sector (69% growth to 2052) followed by Admin and Support Services (61% growth) and the Utilities sector (59% growth). This is the projected

[1] These are based on the High Growth WISE Projections, 2021

level of employment that the FPP councils need to be able to accommodate through planning provisions and the land they apply to.

Employment 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 a combination of recent rating data information by zone, employment by statistical area, 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-UD, all space and land types have been condensed into 3 broad categories – Commercial, Retail and Industrial. Employment growth translated into total land demand results in the FPP partners needing to identify approximately 340ha of business zoned land over the short to medium term (to 2022) and 856ha over the long term to 2052 (Figure 0-2).

Figure 0-2: FPP Business Land Long Term Demand by Broad Sector, 2022 – 2055 (ha).

Broad Sector	Hamilton City	Waikato District	Waipa District	Total FPP Area
Short-Medium term				
Commercial	43	12	17	72
Retail	12	3	2	17
Industrial	167	63	21	251
Tot. Bus. Demand (ha)	**222**	**78**	**39**	**340**
Long Term				
Commercial	117	32	50	200
Retail	27	7	6	39
Industrial	398	153	67	618
Tot. Bus. Demand (ha)	**542**	**192**	**122**	**856**

There is some variation by sector and by TA, with 41% of Hamilton City's demand manifesting within 10 years but only 32% of Waipā's growth. In total 42% of Hamilton's Industrial land demand occurs within 10 years, but only 31% of Waipā's Industrial demand does.

For the retail and commercial sectors, floorspace is a more meaningful metric than land. This is because retail and commercial land can be developed more intensively and businesses in these sectors generally are able to occupy multiple levels of one building on one site, which means that land requirements are lower. It also means that shortfalls can be met by raising building height provisions as well as zoning more land. This is not the case for Industrial. To cater for anticipated economic growth over the next 30 years, the total FPP area requires 3.98 million sqm of gross floor area (GFA) of build space. Over 2.6 million sqm is demanded for the industrial sectors, 1.1 million sqm for commercial activities and 240,000sqm for retail.

Figure 0-3: FPP Total Business Floorspace Demand (GFA) by Broad Sector, 2022 – 2052 ('000 sqm)

Broad Sector	Hamilton City	Waikato District	Waipa District	Total FPP Area
Short-Medium term				
Commercial	272	74	48	393
Retail	70	19	16	104
Industrial	680	260	117	1,057
Total Demand (sqm GFA)	**1,022**	**353**	**180**	**1,555**
Long Term				
Commercial	734	194	141	1,068
Retail	159	41	40	240
Industrial	1,619	634	375	2,628
Total Demand (sqm GFA)	**2,512**	**869**	**556**	**3,936**

Business Land and Floorspace Capacity

Business Land and Floorspace capacity in each district has been identified by applying the provisions in each District Plan to vacant parcels identified in the rating database and other parcel level land files. This produces a measure of total Plan Enabled capacity that needs to be refined to account for the portion not feasible for development for whatever reason. We have also used information relating to greenfields development (including structure plans) to identify capacity on land areas that are not currently developable under the existing zoning. A reduction in greenfield areas of 33% has been applied across the Waikato and Waipā districts so that roads, reserves and infrastructure requirements are taken account of. A similar process has been undertaken for Hamilton City.

Out of necessity, provisions in the district plans are broad, meaning that most parcels identified as vacant can meet a relatively wide range of needs. Therefore, capacity may not be exclusively allocated back to one usage type or another. Parcel level capacity has been aggregated to reporting areas (town agglomerations for Waikato and Waipā or broad suburbs for Hamilton) 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 1,923ha of land has been identified as having capacity for business growth, across the FPP over the long term. The majority of this resides within Waikato District (1,297ha) with 406ha in Hamilton and 220ha in Waipā. Much of the land in Waikato District is greenfield land, that may not be available in the short or medium term. The identified vacant land is mostly available for Industrial uses (1,770ha), with 93ha available for Commercial and 60ha for Retail use.

Note that one piece of land may be used for multiple purposes under the different plans as all councils have a relatively permissive planning regime. This means that one piece of land may potentially be used for any combination the three broad uses and so has been identified as capacity within that category, but once it is occupied by one use it necessarily excludes all other uses.

Figure 0-4: FPP Vacant Business Land Capacity, Short-Medium and Long Term 2022-2052 (ha)

Broad Sector	Hamilton City	Waikato District	Waipa District	Total FPP Area
Short-Medium term				
Commercial	28	25	39	92
Retail	35	21	3	59
Industrial	214	197	178	589
Total Vacant Bus. Land	**278**	**243**	**219**	**741**
Long Term				
Commercial	28	26	39	93
Retail	35	21	3	60
Industrial	343	1,250	178	1,771
Total Vacant Bus. Land	**406**	**1,297**	**219**	**1,923**

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 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), Short-Medium and Long Term 2022-2052 ('000sqm GFA)

Broad Sector	Hamilton City	Waikato District	Waipa District	Total FPP Area
Short-Medium term				
Commercial	1,229	360	1,389	2,979
Retail	434	130	76	641
Industrial	1,592	740	833	3,165
Total Capacity (GFA)	**3,256**	**1,230**	**2,298**	**6,784**
Long Term				
Commercial	1,229	160	1,389	2,779
Retail	434	134	76	645
Industrial	2,609	4,788	833	8,230
Total Capacity (GFA)	**4,273**	**5,083**	**2,298**	**11,654**

In total, the identified vacant business land supports approximately 11.7m sqm of built space. Approximately a third (37%) of the vacant capacity is within Hamilton City alone, made up of 2.6 million square metres of vacant industrial capacity and 1.2 million square metres of commercial potential development floorspace and 434,000sqm of Retail GFA. Waikato District has the largest amount of industrial floorspace capacity of the partners, with 4.8 million square metres potentially developable in the long term to 2052. Much of this is contained in the greenfields land identified in the Waikato 2070 planning, with more available after 2052 as well. Around 1.4 million square metres of commercial floorspace capacity

has been identified as potentially developable in Waipā District, while Waikato District has the lowest commercial GFA development capacity with 160,000 square metres enabled in total, 3.2% of the total for the sub-region. Commercial space makes up 24% of total floorspace identified.

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. Any development since the last update of rating information 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 and the central business district of Hamilton. 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, such as local yards or storage buildings. To a certain extent rural development will be curtailed by the NPS-HPL, which stops development on highly productive soils (LUC1,2 and 3).

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 who is also the business operator and who is 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.

Further complicating the position in the FPP is the significant presence of iwi land ownership models. Tainui Group Holdings are a major land owner around the edges of Hamilton City of developable industrial land. However, their development model sees TGH retaining land ownership while operators will sign lease arrangements to built and operate there. This ownership model may not appeal to a portion of the market complicating the feasibility and uptake analysis.

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 criterion 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, Councils 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 (town or broad suburb) 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 the amount of built space enabled by the planning regimes exceeds the total amount of demand – even with an added competitive markets margin (20% in the short to medium term and 15% in the long term). Land capacity is more problematic with a shortage of commercial land provided in the long term across all the FPP Councils, and in the medium term in Hamilton City. However, given that commercial land can be developed more intensely generating a larger amount of floorspace, commercial land capacity when translated to floorspace becomes less of an issue. Note that the green bands in the Sufficiency Measure Columns indicate sufficient capacity to meet demand. Also note that values are cumulative across time periods, so that values within the long term supply and demand columns represent total expected capacity and demand as at 2052.

At the total FPP level, the plan enabled capacity for retail and industrial land (plus a competitiveness margin) is sufficient to meet the anticipated growth needs over the long term. Figure 0-6 shows that retail and industrial land demand (plus margin) over the long term is significantly less than the amount of land provided for in the various district plans. Waipa District has insufficient retail land capacity in the long term, however, when viewed from a floorspace perspective there is no demand-supply imbalance (Figure 0-7). Hamilton City has a shortfall of industrial capacity in the Long Term. There is likely to be a wider margin than reported here if lease arrangements on the TGH land prove to be a barrier to development. There is an identified commercial land shortfall in the medium term in Hamilton City and in the long term in both Waipa and Waikato.

Total FPP demand for retail land is approximately 66% of retail land capacity over the long term, while industrial demand is 38% of industrial land capacity. Industrial demand outstrips capacity in Hamilton City in the long term (114%) while demand is a fraction of capacity in Waikato (14%) and Waipā (43%).

Based on these supply and demand estimates, there is enough vacant retail and industrial land capacity within the Future Proof Partnership over the long term. Commercial land looks a little constrained, however substitutability between retail and commercial and more intensive use of commercial land – in line with plan provisions, will ensure sufficiency is achieved in the short and medium term. There is likely to be an issue in the long term that may require additional capacity. FPP Councils should monitor the commercial demand-supply balance as this is critical over the next 30 years.

Figure 0-6: Future Proof Partners Business Land Sufficiency summary (ha)

Sector	Demand Growth (ha)			Estimated Land Availability (ha)			Sufficiency Measure		
	Short Term (+20%)	Medium Term (+20%)	Long Term (+15%)	Short Term	Medium Term	Long Term	Short Term	Medium Term	Long Term
Commercial									
Hamilton City	16.2	52.0	135.0	28.0	28.0	28.0		Insufficient	Insufficient
Waikato District	4.2	14.7	37.3	36.1	25.2	25.9			Insufficient
Waipa District	6.3	19.9	57.1	38.6	38.6	38.6			Insufficient
TOTAL FUTURE PROOF	26.7	86.7	229.4	102.7	91.9	92.5			Insufficient
Retail									
Hamilton City	4.3	14.0	30.5	22.0	35.4	35.4			
Waikato District	1.3	3.7	7.9	15.2	20.7	21.2			
Waipa District	0.7	2.6	6.5	3.2	3.2	3.2			Insufficient
TOTAL FUTURE PROOF	6.4	20.3	44.8	40.3	59.2	59.7			
Industrial									
Hamilton City	61.5	200.3	457.4	125.6	214.5	342.8			Insufficient
Waikato District	26.3	75.7	176.0	121.3	197.3	1,250.2			
Waipa District	8.4	24.7	76.8	177.7	177.7	177.7			
TOTAL FUTURE PROOF	96.1	300.6	710.2	424.6	589.4	1,770.6			

Gross floorspace capacity at the aggregate Future Proof level is well in exceedance of projected demand plus the competitive markets margin. In total, commercial demand will occupy 44% of commercial GFA capacity, while retail and industrial demand is expected to occupy 43% and 37% respectively.

Within Waikato District, there is a shortage of commercial floorspace totalling some 62,100 sqm in the long term. Long term commercial demand is expected to take up 69% of identified capacity in Hamilton, and only 12% in Waipā. Commercial employment growth should be compared against commercial GFA capacity not commercial land capacity. If commercial employment growth is translated into land demand, then compared with the amount of available land - it provides a very different picture than if it is translated to built space and compared with available built space.

Demand for retail floorspace is expected to reach 60% and 42% of total enabled floorspace in Waipā and Hamilton, and 35% of capacity in Waikato. Industrial floorspace demand will reach 71% of Hamilton's plan-enabled floorspace capacity, 15% of Waikato's capacity, and 52% of Waipā's industrial floorspace capacity.

Again, assessing industrial employment growth should be compared against industrial land capacity – not industrial space capacity (GFA). This is primarily because industrial activities are land extensive and are not able to be stacked in multi storey building the way most commercial employment can be. Growth in industrial activity more directly translates into growth in demand for industrial land.

Figure 0-7: Future Proof Partners Business Space Sufficiency Summary (GFA sqm)

Sector	Demand Growth (sqm)			Estimated GFA Availability (sqm)			Sufficiency Measure		
	Short Term (+20%)	Medium Term (+20%)	Long Term (+15%)	Short Term	Medium Term	Long Term	Short Term	Medium Term	Long Term
Commercial									
Hamilton City	101,400	326,400	843,700	1,229,500	1,229,500	1,229,500			
Waikato District	25,800	88,500	222,600	945,800	360,300	160,500			Insufficient
Waipa District	18,100	57,043	162,205	1,388,943	1,388,943	1,388,943			
TOTAL FUTURE PROOF	145,300	471,943	1,228,505	3,564,243	2,978,743	2,778,943			
Retail									
Hamilton City	26,100	84,185	182,996	333,717	434,177	434,177			
Waikato District	8,100	22,313	47,120	197,297	130,149	134,236			
Waipa District	5,600	18,844	45,844	76,257	76,257	76,257			
TOTAL FUTURE PROOF	39,800	125,341	275,960	607,270	640,583	644,670			
Industrial									
Hamilton City	250,400	815,554	1,861,988	921,118	1,592,006	2,609,143			
Waikato District	108,400	312,594	729,109	464,651	739,960	4,788,277			
Waipa District	47,700	139,973	431,099	832,699	832,699	832,699			
TOTAL FUTURE PROOF	406,500	1,268,121	3,022,197	2,218,469	3,164,666	8,230,119			

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 over the 30 year period 2022-2052. This assessment has identified a shortage in commercial land over the long term for each of the FPP Councils, however commercial floorspace provided is well in exceedance of likely demand. Much of the capacity enabled is in greenfields land that is earmarked for future development.

Our analysis indicates that there is potential for some pressure to be felt at the local level within each council, as demand for land and floorspace at the town or suburb level may not match exactly the enabled capacity. These pressures are exacerbated when the required demand margins (+15-20%) are added.

Most significantly, this pressure occurs within the Hamilton City boundary for industrial land. It is possible to reduce these pressures by ensuring that industrial land in "industrial development areas" is protected from encroachment by other uses (especially large format retail). There are some areas where commercial and retail land and GFA demand is likely to outstrip capacity within Hamilton, but these demand types are much more mobile than industrial types and are able to occupy a diverse range of locations and zones as compared to industrial uses. Where deficits occur in industrial capacity at local levels, it may be preferable for industrial-type businesses to migrate to other areas such as Ruakura for the co-locational and economic benefits that can be derived from such a move. As discussed above, the leasehold tenure structures of much of the Ruakura land may act as a deterrent for some businesses. This will need monitoring by Council.

We strongly recommend that council protects industrial land for industrial uses, given that there are significant levels of commercial and retail land enabled elsewhere, more suited for commercial and retail operations.

Waikato is generally well-supplied with capacity across the district. Much of the supply in the medium and long term is located at the northern end of the district, adjacent to the Auckland Region and on State

Highway 1 at Ohinewai. Across the rest of the district, Raglan and Te Kauwhata face insufficient industrial land supply in the medium-to-long term, while Huntly faces insufficient industrial supply in the long term. These may not be as big an issue as initially assumed as there is the possibility of businesses locating nearby – especially for Huntly in Horotiu. Council may have to explore options of re-zoning in Raglan, although options may be limited by topography of the area.

Waipā has sufficient capacity at almost all levels and timescales, with minor insufficiencies occurring in the long term for retail land supply in the district's minor towns. When viewed through a floorspace lens, Waipā has significant retail floorspace capacity in excess of demand. Like the other FPP Councils, a deficit of commercial land was identified for Waipā over the long term, however commercial floorspace is greater than demand.

Key conclusion points include;

- In general, the gap between Industrial land supply and industrial land demand is closer than for retail and is more critical than for commercial. For Hamilton the industrial demand-supply gap reaches 98% in the medium term and demand exceeds supply in the long term (133%). In Waikato, it reaches 38% in the medium term, before the large amounts of land enabled under Waikato 2070 see it drop back to 14% in the long term. In Waipa, demand reaches 14% of capacity in the medium term and 43% in the long term, so there are not expected to be significant issues. 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. The adverse effects are also felt in the industrial zones with increased traffic potentially causing friction with established industrial activities.

- The 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 is particularly the case because the permissive nature of most zone provisions allow for both retail and commercial to be developed on any given parcel in the business zones (that do allow for these activities). The modelling undertaken for this report, allocates demand to parcels based on the share of activities enabled. By treating both activities together may alleviate pressure felt at a local level if either one or the other is constrained. The key difference is that retail activities occupy the ground floor exclusively, while commercial activities area able to be stacked.

- 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 Hamilton City, Waikato District, Waipā District and Matamata-Piako District. The original FPP network (Waikato District, Hamilton City and Waipā District) is identified as a tier 1 urban environment. In accordance with the National Policy Statement for Urban Development[2] (NPS-UD or NPS), tier 1 and 2 Councils 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, updates the original assessment to 2022.

This assessment is focused on the original tier 1 FPP Councils (Hamilton City, Waikato District and Waipā District) which are subject to a range of provisions under the NPS-UD.

This assessment analyses 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 an update to the original Business Development Capacity Assessment (BDCA) prepared for the Future Proof Partners Business Development. A separate residential capacity assessment – the Housing Development Capacity Assessment (HDCA) – has also been 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-UD.

1.1 Purpose of the NPS-UD

In summary, the NPS-UD 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 a 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

[2] https://environment.govt.nz/assets/publications/National-Policy-Statement-Urban-Development-2020-11May2022-v2.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-UD 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-UD requires that development capacity considered in these assessments is either serviced or identified in a Future Development Strategies.

1.2 Objectives and Policies

As tier 1 local authorities, the original FPP areas are subject to the full suite of objectives and policies under the NPS-UD. 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 (Subpart 3 clause 3.10, Subpart 5 clause 3.19), together with a range of requirements in the Policies[3]. 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

[3] Available for download from https://environment.govt.nz/assets/Publications/Files/AA-Gazetted-NPSUD-17.07.2020-pdf.pdf

important to understand the NPS both holistically, and as to the specific requirements for each Policy. The individual policies cannot be satisfied if treated in isolation.

Within this wide suite of policies, the major part of the technical analysis and monitoring is set out in policies clauses 3.28 to 3.30, which contribute most directly to the BDCA (and HDCA). These are addressed throughout this report.

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. Development capacity must be "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 Policy 1 and Policy 2.

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

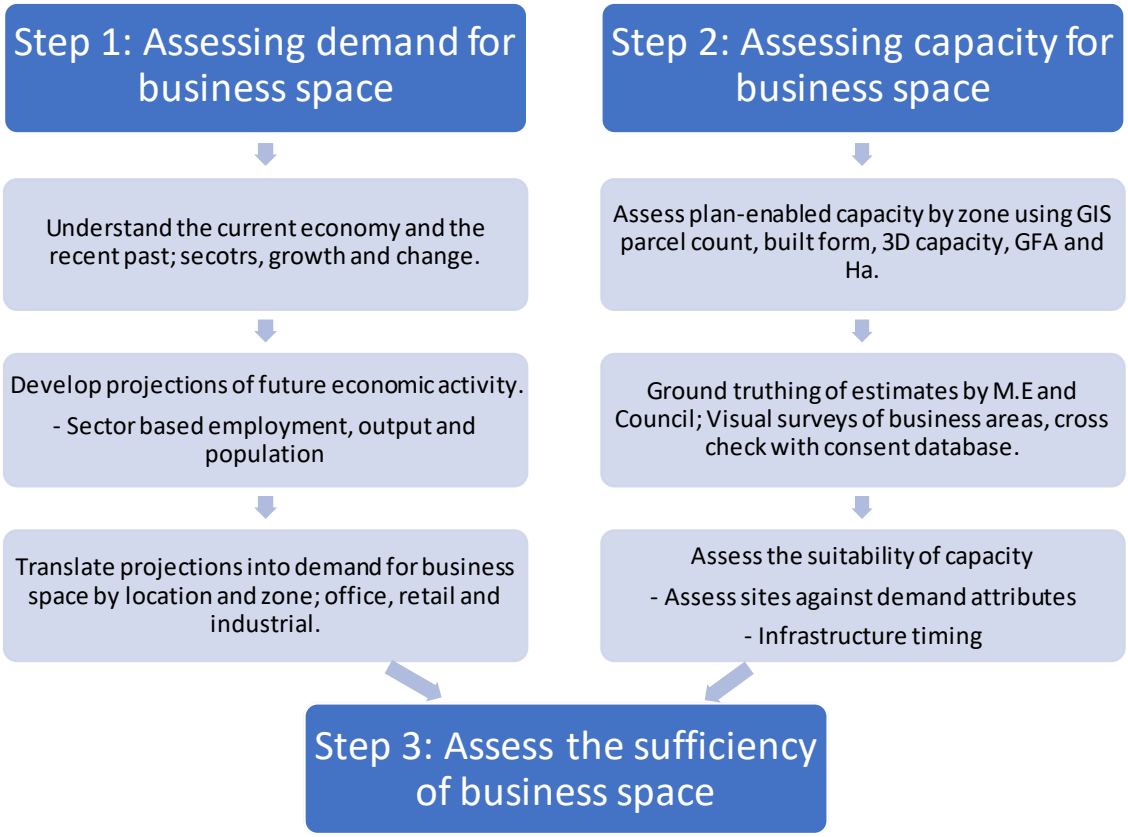
This report focuses on economic growth and how it translates into land and space requirements within the FPP urban environment. Economic growth is a key driver of development markets and is important to understand in terms of absolute scale, composition and timing. With this information, FP partners 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 1-1. The following sections contain a narrative that addresses each stage in detail.

Figure 1-1: 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[4] – capacities were modelled at the LINZ Primary Parcel level
- District Plan Zoning – provided by each council, including overlays, subzones, and hazards

[4] 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 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 2022. Capacity estimates have been based on 2022 valuation information and structure plans. Demand projections have been calculated for every year from a 2018 base, to coincide with Statistics New Zealand information.
- **Business Land**: land that is zoned for business uses in urban environments, including but not limited to land in the following zones:

Figure 1-2: Business Activity Zones (Operative), Hamilton, Waipa and Waikato 2023

Hamilton City	Waipa District	Waikato District
Commercial Fringe	Airport Business Zone	Business
Events Facilities Fringe	Commercial Zone	Heavy Industrial
Sub-Regional Centre	Deferred Commercial Zone	Light Industrial
Large Format Retail	Deferred Industrial Zone	Industrial
Suburban Centre Core	Industrial Zone	Industrial Services
Neighbourhood Centre	Specialised Industrial Zone	Timber Processing
Frankton Comm. Fringe		Industrial Park
Downtown Precinct		Village Business
City Living Precinct		Aggregate Extraction
Ferrybank Precinct		
Ag Research		
University of Waikato Campus		
Waikato Innovation Park		
Deferred Industrial Zone		
Heavy Industry		

It is important to note that the above zone codes are not exclusive to a single activity type. 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 that businesses place on the land or the 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, 2022-2025.
- Medium term: 4-10 years measured from the base year, 2025-2032.
- Long term: 11-30 years measured from the base year, 2032-2052.
- 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.
- **Wet Industry**: Typically, these are industrial activities that use large quantities of water[5] and include things such as food manufacturing plants, breweries, and meat processing plants.
- **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.
- **Realistic industrial space (RIS):** M.E have applied a reduced site coverage of 38.3% to industrial zoned land, to better reflect industrial development patterns.[6]
- **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.

1.7 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.

[5] More than 15,000 litres of water per day as defined in the HCC Draft Development Contributions Policy 2022-23.

[6] The 38.3% site coverage was derived from the average site coverage in the Te Rapa North industrial zones, and reflects our assumption for industrial space availability going forward. District Plan rules indicate site coverages of between 58% and 80% for industrial type zones.

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 provides an overview of the BDCA results for Matamata-Piako District – a tier 3 urban environment that is now part of the FP partnership. The MCA work is also covered 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-UD 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 original FPP network contains a land area totalling 6,034 km^2, of which Waikato District makes up 4,453 km^2 (73.8%), Waipā 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 Waipā and Tuakau and Ngāruawāhia in Waikato District), and a number of smaller towns (Huntly, Raglan, Pokenō, 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.

Recent completion of significant components of the state highway network between Auckland and Cambridge in Waipa District have reduced travel times by a large amount. This reduction in distance friction will boost growth across the FPP, in particular the areas south of Hamilton. This is reflected in the growth of warehouse operations in Northern Cambridge and future development across the Tainui Group Holdings land at Ruakura.

Figure 2-1: Future Proof Partners Study Area

2.2 Spatial Framework - Land Use Zones

Modelling of business demand and capacity within the FPP area occurs at the Statistical Area level (SA2's), with demand growth based on outputs from the WISE[7] model. This allows a relatively granular view across the FPP area, which can be aggregated to a range of geographic scales, enabling the results to be output at to the level of key urban geographies, such as towns or other reporting areas as required. It is important not to assess levels of sufficiency at the SA2 level, as demand is mobile and the relatively short distances within Hamilton City[8] 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 which should be met within local centres within or adjacent to residential areas. Overall, given the relatively cohesive nature of business activities within the Future Proof Partnership area, it is possible to allocate SA2s to reporting areas.

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. These are broadly based on existing zoning and greenfields earmarked for future development. Frankton, CBD, and Chartwell are largely developed already. Te Rapa is a mixture of developed industrial land uses and greenfield developments, while Ruakura is primarily greenfield but only available as leasehold. This may have implications for some potential occupiers.

For both Waikato and Waipā Districts, all modelled outputs have been aggregated to a combination of towns based on geographic location, to 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 Waipā District respectively.

Urban areas within Waikato District have been aggregated to: Pokenō, Tuakau, Te Kauwhata, Huntly, Ngāruawāhia, Raglan, and Rest of Waikato. Waikato District requires a larger range of reporting areas because of the relatively spread spatial distribution between the towns.

Urban areas within Waipā District have been broadly aggregated to: Cambridge-Karapiro, Te Awamutu-Kihikihi, Rukuhia-Ngahinapouri-Ohaupo-Pirongia, and Rest of Waipā. Cambridge-Karapiro and Te Awamutu-Kihikihi have been combined based on the proximity of the satellite towns to the major centres, while Rukuhia, Ngahinapouri, Ohaupo, and Pirongia effectively create network of well-connected towns for assessment.

[7] Waikato Integrated Scenario Explorer.

[8] 5km in a straight line from the CBD is rural land to the west and east, while the north south distances are only 7km

Figure 2-2: Hamilton City Spatial Framework

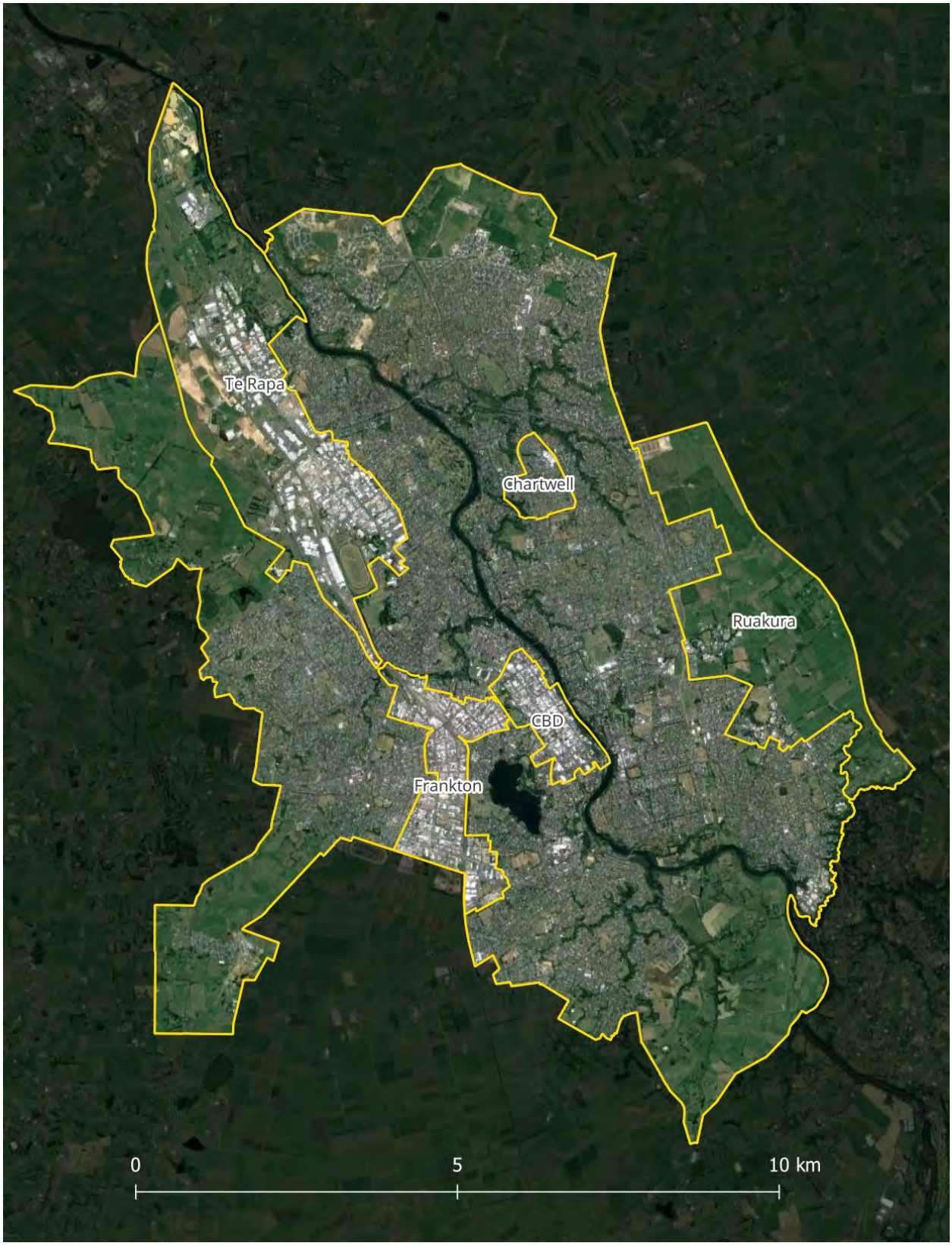


Figure 2-3: Waikato District Spatial Framework

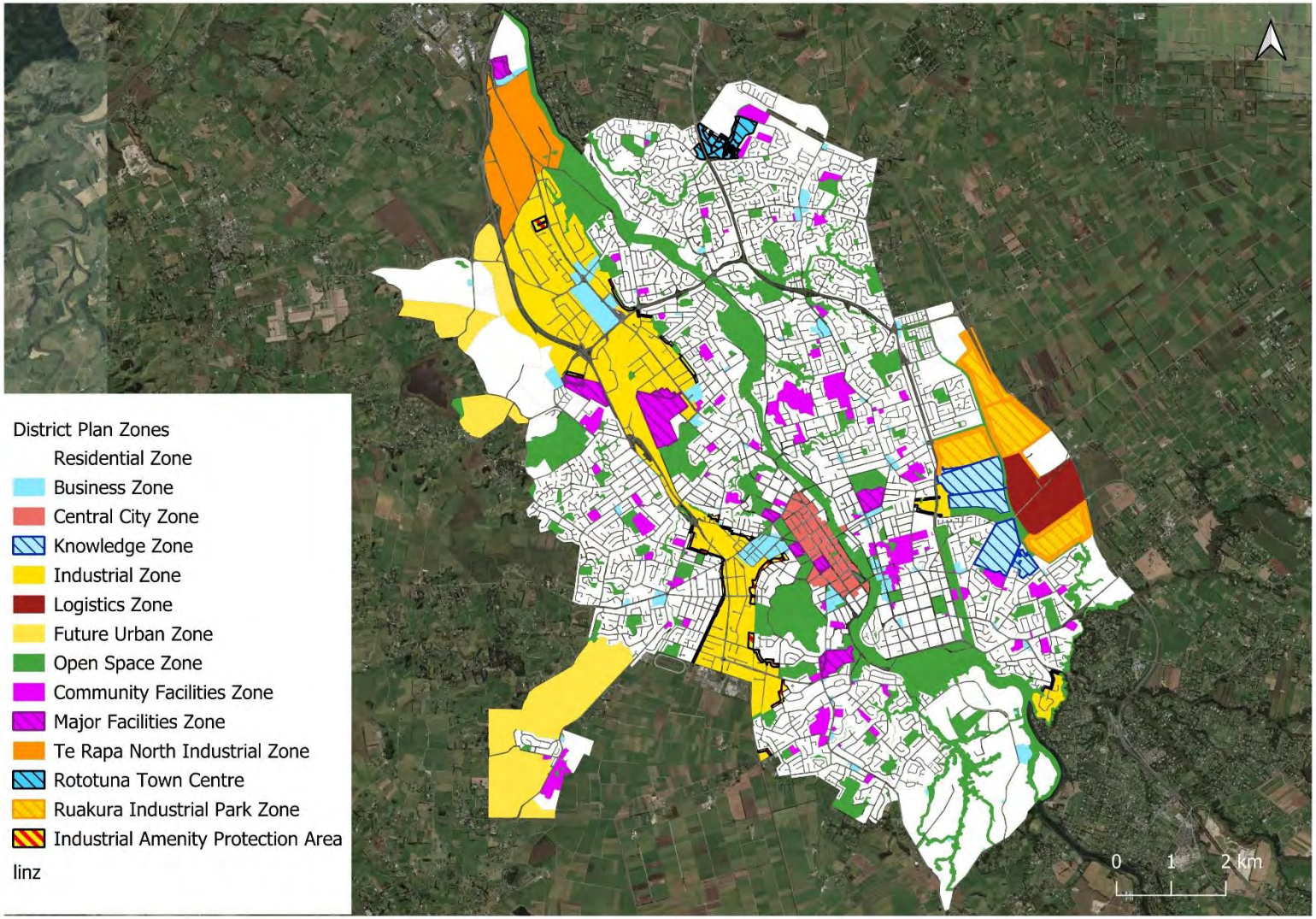
Figure 2-4: Waipā District Spatial Framework

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 from 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. Capacity within rural areas is further constrained with the introduction of the National Policy Statement on Highly Productive Land (NPS-HPL). This states that no activity may occur on land classes 1-3, unless no capacity exists within urban zoned areas.

2.2.1 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;

- Business Zones 1-7,
- Central City Zones 1-3,
- Industrial Amenity Protection Area,
- Industrial Zones,
- Knowledge Zones,
- Logistics Zones,
- 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 zones are key zone within the BDCA assessment for Hamilton City. These zones are located in key clusters throughout the city, reflecting the location of key commercial and retail centres. The Business zones are divided into 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 subzone has distinct development characteristics and a set of permitted activities which have been identified and utilised within the BDCA. The intensity and type of development varies throughout the subzones, with all space types – including industrial uses – represented within different business zones.

The City Centre 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 Zones are key for enabling industrial type development and activities. The Industrial Zone is primarily represented in large clusters around Te Rapa and Frankton, and the new Ruakura Inland Port area, 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 due

to its age, 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 – except on the urban edge.

The Knowledge Zone is a confined zone, 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. We note the leasehold ownership structure for much of this land. This may act as a deterrent for some industrial developers, however, to date has not proved to be a significant issue.

The Ruakura Industrial Park Zone (RIPZ) provides 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 also key to providing future industrial capacity within Hamilton City.

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, with no subzones. Likely development patterns in the future will be similar to those existing in the Te Rapa 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 providing future industrial capacity within Hamilton City.

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.

2.2.2 Waikato District

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 operative district plan contains two separate planning sections that interact with the planning zones to alter the rules and activities in some cases. There are further changes in rules and zoning under the proposed district plan. The zoning within the proposed district plan is simpler than in the operative district plan, reducing the number of sections down to one and combining zoning. There are also greenfield areas earmarked for development under the Waikato 2070 strategy. The BDCA takes account of all of these rules to assess capacity across each of the locations.[9] 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,
- Industrial Services,
- 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. This was in the form of the Waikato 2070 designations.

The Business Zone in Waikato District defines the key commercial and retail activity centres within the District Plan. This zone is found in all major towns, including larger centres such as Pokenō, Tuakau, Te Kauwhata, Ngāruawāhia, 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.

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.

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

Figure 2-6: Tuakau – Pokeno Zoning

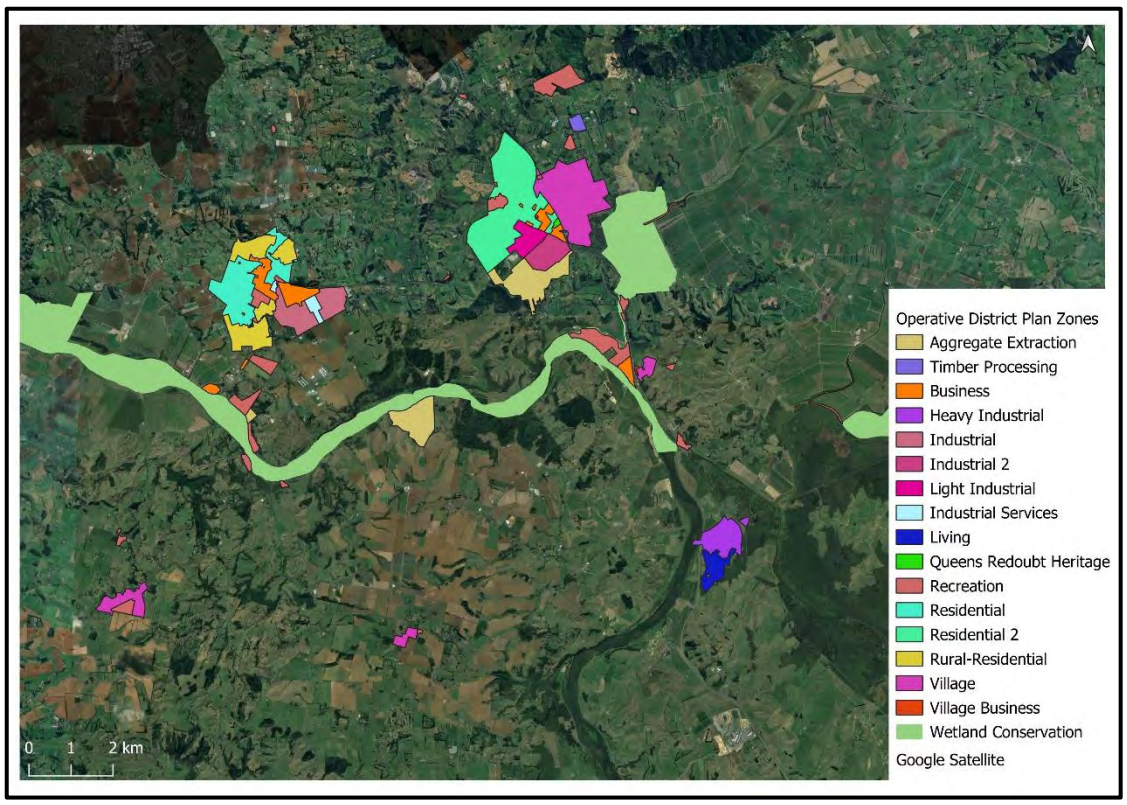


Figure 2-7: Te Kauwhata – Huntly Zoning

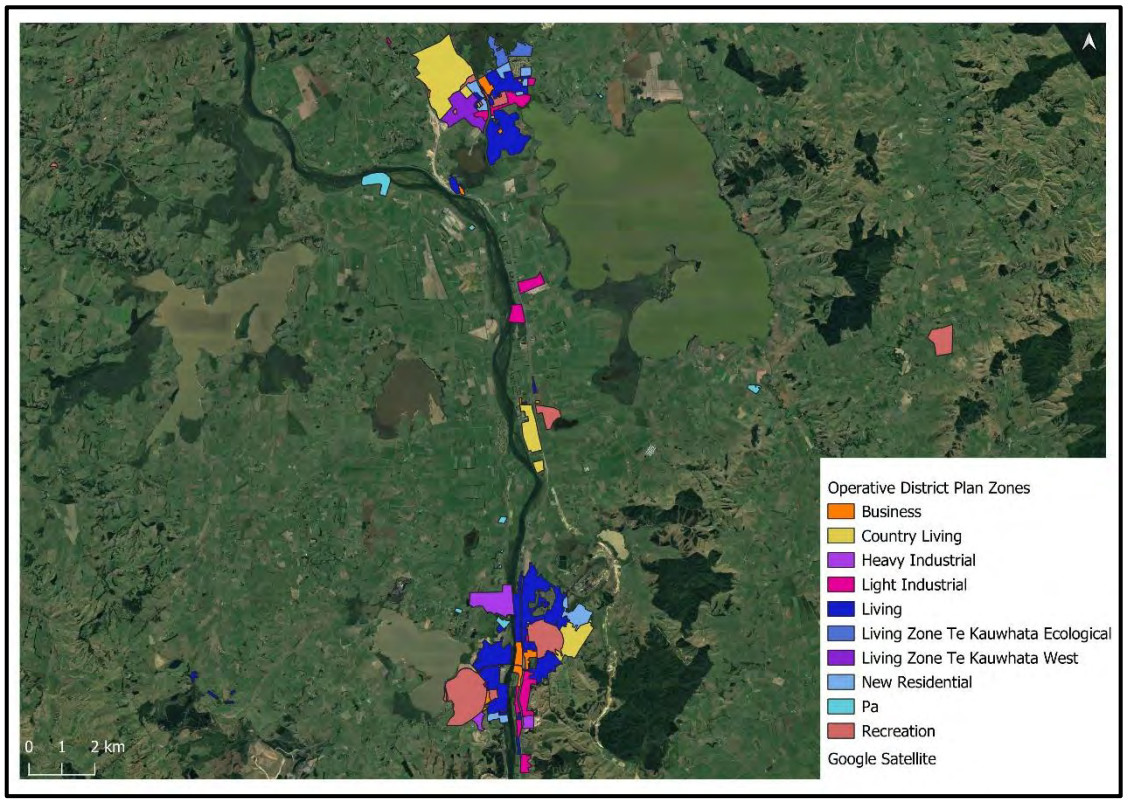


Figure 2-8: Taupiri-Horotiu Zoning

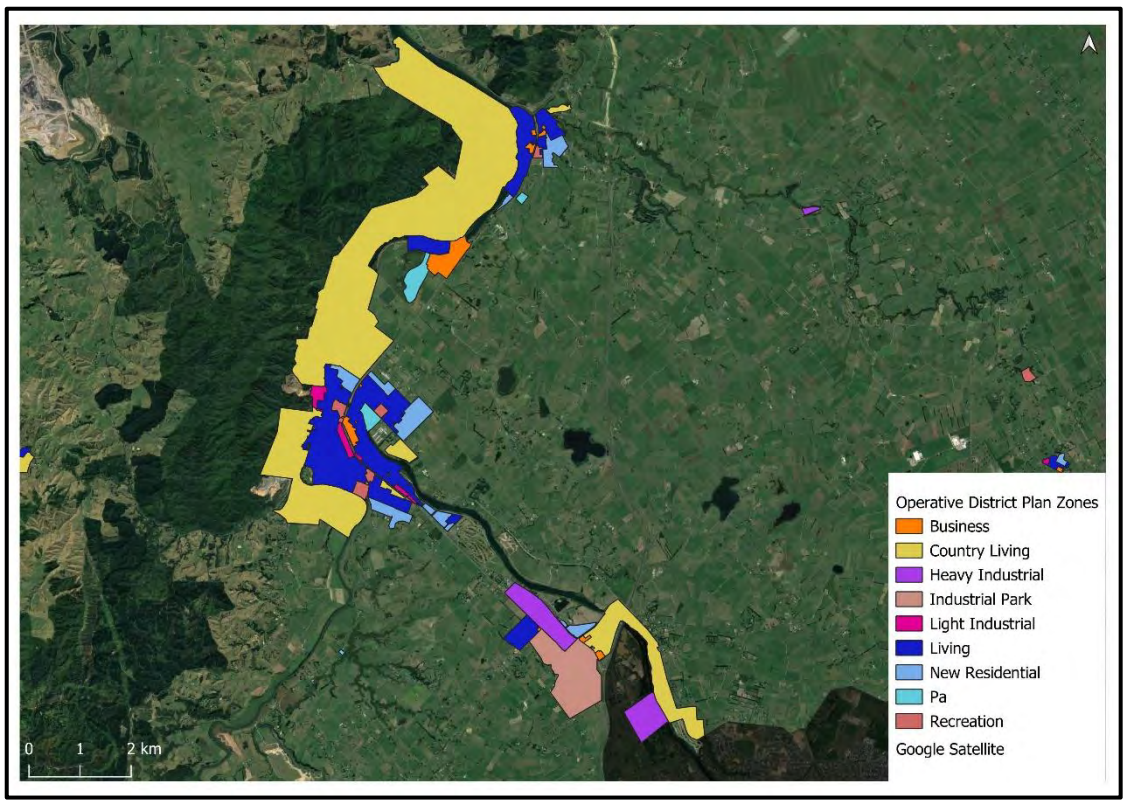


Figure 2-9: Raglan Zoning

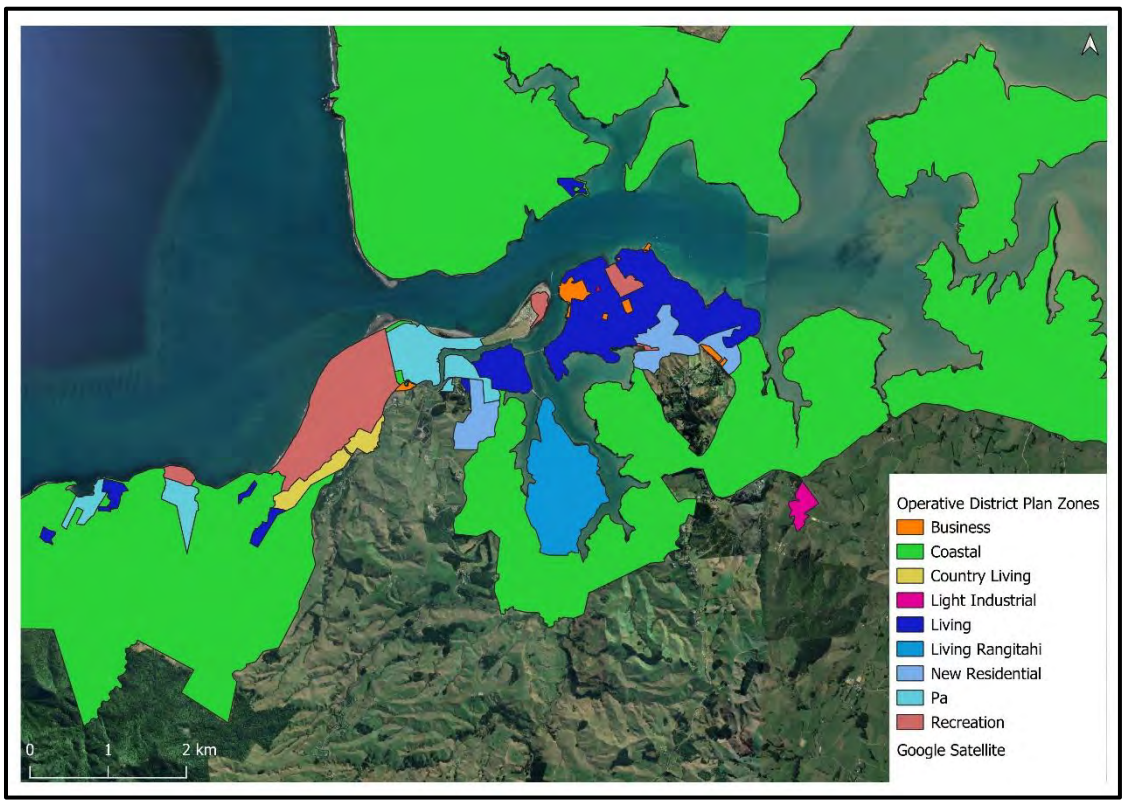
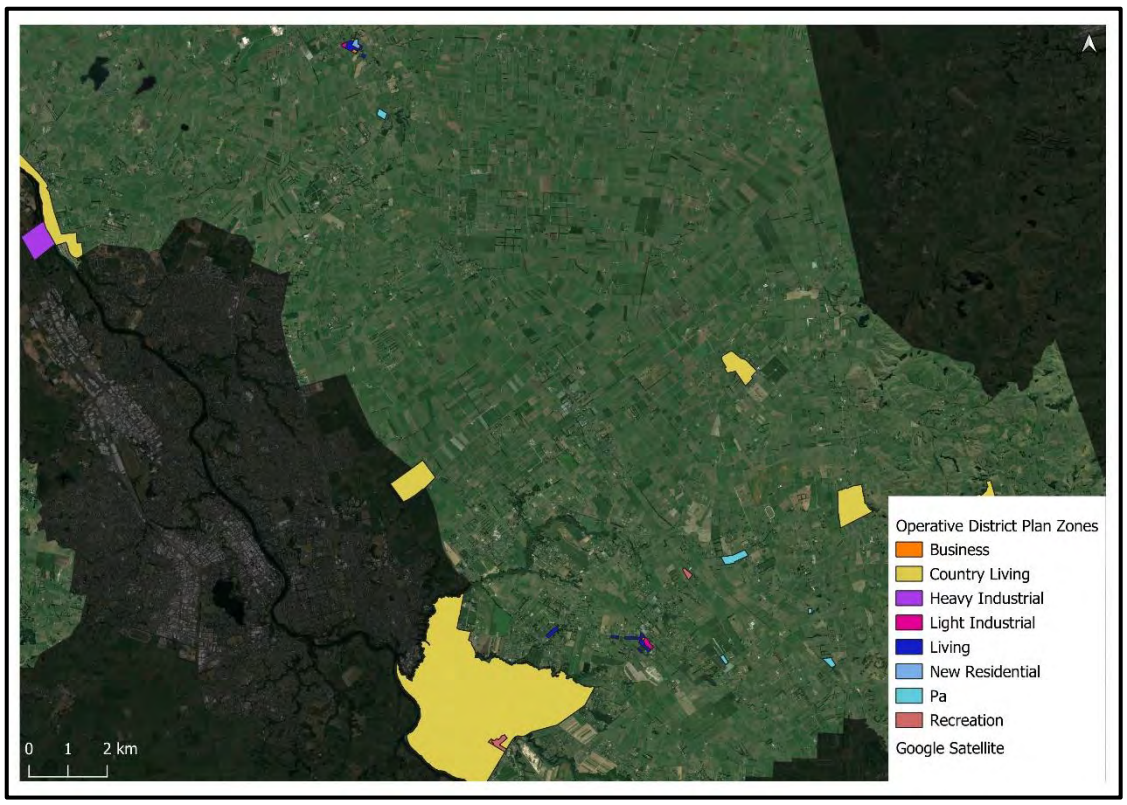


Figure 2-10: Gordonton – Tamahere Zoning



The Industrial and Industrial 2 Zones are located adjacent to Pokenō 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 Pokenō 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.

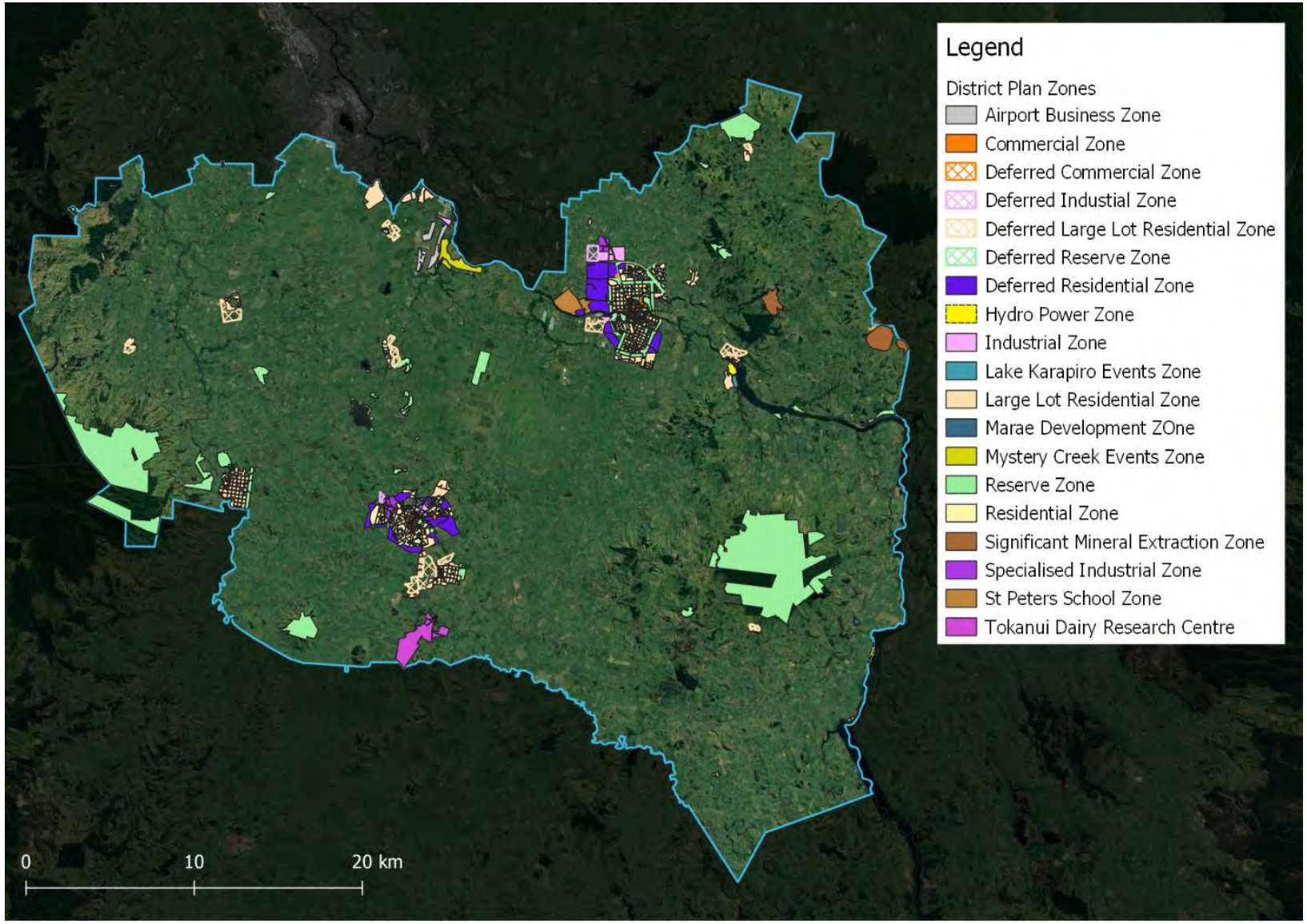
As with the Hamilton City BDCA, the Waikato District BDCA incorporates greenfield structure plan information. Three key greenfields areas around Pokenō, Tuakau and Horotiu have been earmarked for urban industrial uses, so have been included in the BDCA due to the role that they play for the future of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

2.2.3 Waipā District

As with the other Future Proof Partners, the Waipā 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 Waipā District are less complex to incorporate into the BDCA model. The spatial distribution and full list of zones can be found in Figure 2-11.

Figure 2-11: Land Use Zones in Waipā



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

- Airport Business Zone,
- Commercial Zone,
- Deferred Commercial Zone,
- Industrial Zone,
- Deferred Industrial 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 large 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 Waipā 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 Waipā 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 Waipā 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 TAs: Hamilton City, Waikato District and Waipā District[10]. There are significant differences between the three economies that reflect the different roles each play within the FPP area.

Hamilton's role as the main city within the Waikato Region is reflected by the high relative concentrations of employment in the public sector – public administration and safety, health and education financial and Insurance, and the social assistance and other services sectors. In addition, high concentrations of retailing and manufacturing emphasise its role as the region's prime city.

Both the Waikato District and Waipā District are heavily reliant on the primary production sectors for employment (23% and 15% of total district employment respectively). In turn 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 Waipā have some similarities, however, they are noticeably different from each other. Waikato has a concentration of minerals such as coal and aggregate. The demand for these minerals is fuelled by the district's proximity to Auckland. Spill-over growth from Auckland is also driving development in the northern areas of the district – Tuakau, Pokenō and Te Kauwhata. Residential development as well as large infrastructure projects (Waikato Expressway) has resulted in a high concentration of construction employment within the district.

Compared to the Waikato, Waipā has a greater relative concentration of retail trade, health care and social assistance and other services. This indicates that the district is becoming more self-sufficient and more able to serve the needs of its growing population. The prominence of Arts and recreational services in the district captures the high-performance sports facilities that Waipā District is beginning to see concentrated around Cambridge such as the Velodrome and rowing at Karapiro. Waipā also has a strong representation of employment within the construction sector, indicating a high level of residential and civil construction.

For both Waikato and Waipā, professional and financial services are under-represented as Hamilton City businesses (as well as Auckland businesses) are able to meet the wider needs of the FPP.

[10] Matamata Piako District has recently become a member of the Future Proof Partnership. While a summary of the BCA prepared for MPDC is included in this document, references and statistics relating to FPP apply to Waikato District, Waipa District and Hamilton City.

3.1.1 Sector Level – Employment

Current (2022) employment for the FPP area is shown in Figure 3-1. Employment is measured in Modified Employee Counts (MECs) – a metric composed of employees and working proprietors. Hamilton City accounts for the bulk of employment, making up 67% of total FPP employment in 2022. The distribution of employment reflects the role that each of the TAs play within the FPP area. At a sector level, employment differences are evident between the three TAs.

Hamilton is New Zealand 4th largest city and main city within the Waikato region. Employment is concentrated within the Health Care and Social Assistance sector, engaging some 18,860 MECs or 16.9% of total employment within Hamilton City. This is followed by Manufacturing 11,020 MECs (9.9%), Construction with 10,940 MECs (9.8%), Professional, Scientific and Technical Services with 10,800 MECs (97%), Retail Trade with 10,580 MECs (9.5%) and Education and Training with 9,590 MECs (8.6%). 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 accounts for 17% of total FPP employment. Large concentrations of employment are within the primary production sectors, construction and manufacturing. Just over one fifth (21.4% or 5,850 MECs in 2022) of the district's employment is concentrated in Agriculture, Forestry and Fishing. This is followed by the construction sector with 4,210 MECs (15.4%) and manufacturing with 2,960 MECs (10.8%). Combined these three sectors account for 47.6% of total employment in Waikato District for 2022. Since the last HBA was prepared, agricultural employment has declined in the District in absolute terms while construction sector employment has grown strongly (reflecting recent residential growth on the northern boundary).

Waipā District employs 16% of all MECs within the FPP area. Like Waikato District, the largest sectors are Agriculture, Forestry and Fishing with 3,900 MECs (14.8% of total employment in 2022), Construction with 3,610 MECs (13.7%) and Manufacturing with 2,450 MECs (10.4%).

There are some differences observed between Waikato and Waipā Districts. In absolute numbers, employment within the Retail Trade sector in Waipā is higher compared to Waikato (2,540 versus 1,280 MECs), equating to 9.7% of total employment in Waipā versus 4.7% in Waikato. This trend is reflected in other service sectors such Professional, Scientific and Technical Services and Health Care and Social Assistance. Furthermore, the trend reflects the effect of Auckland's proximity to Waikato District driving reduced internal self-reliance compared with Waipā.

The employment trends are also reflective of urban environments within the Waikato and Waipā Districts. Urban-centric sectors within Waipā District have a higher overall concentration of MECs than the same sectors within Waikato District. Along with the fact that Waipā District is only one-third the size of Waikato District (Section 2.1), the employment trends imply that Waipā 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 Waipā District is centred largely around the two larger townships of Cambridge and Te Awamutu-Kihikihi.

Figure 3-1: FP Partners Employment (MECs), 2022

Sector	Hamilton	Waikato	Waipa	Total FPP
Agriculture, Forestry and Fishing	887	5,849	3,902	**10,639**
Mining	36	379	51	**467**
Manufacturing	11,020	2,957	2,740	**16,717**
Electricity, Gas, Water and Waste Services	1,268	372	208	**1,848**
Construction	10,939	4,207	3,613	**18,759**
Wholesale Trade	5,006	724	1,050	**6,779**
Retail Trade	10,575	1,281	2,539	**14,396**
Accommodation and Food Services	6,503	1,376	1,493	**9,372**
Transport, Postal and Warehousing	2,720	948	858	**4,526**
Information Media and Telecommunications	1,220	250	145	**1,614**
Financial and Insurance Services	2,058	90	341	**2,488**
Rental, Hiring and Real Estate Services	1,754	584	537	**2,876**
Professional, Scientific and Technical Services	10,794	1,544	1,899	**14,237**
Administrative and Support Services	6,198	1,007	688	**7,893**
Public Administration and Safety	6,321	815	547	**7,682**
Education and Training	9,586	2,075	2,071	**13,733**
Health Care and Social Assistance	18,859	1,443	1,824	**22,125**
Arts and Recreation Services	1,654	563	709	**2,926**
Other Services	3,879	854	1,088	**5,821**
TOTAL	111,277	27,318	26,303	**164,898**

Source: Statistics NZ Business Directory, 2022

The composition of businesses within the FPP areas mirror that of the MECs (Figure 3-2). Hamilton City is largely comprised of urban-centric businesses, while Waikato and Waipā Districts have a large number of Agriculture, Forestry and Fishing sector businesses.[11]

Just under half (47%) of total FPP businesses are concentrated in Hamilton, however, these businesses are larger on average as the city employs 68% of the total employees. The average business in Hamilton employs 6.6 workers, whereas the average in Waikato District is only 2.5 (down 0.1 MEC/GEO unit from 2020) and 3.1 in Waipā (also down 0.1 MEC/GEO unit).

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

Figure 3-2: FP Partners Businesses (GEOs), 2022

Sector	Hamilton	Waikato	Waipa	Total FPP
Agriculture, Forestry and Fishing	283	2,521	1,729	**4,533**
Mining	13	30	16	**58**
Manufacturing	901	468	339	**1,708**
Electricity, Gas, Water and Waste Services	53	35	33	**122**
Construction	2,297	1,538	1,161	**4,996**
Wholesale Trade	688	243	244	**1,175**
Retail Trade	1,432	394	445	**2,271**
Accommodation and Food Services	810	242	245	**1,297**
Transport, Postal and Warehousing	477	285	175	**937**
Information Media and Telecommunications	164	46	41	**251**
Financial and Insurance Services	1,074	525	515	**2,113**
Rental, Hiring and Real Estate Services	3,169	2,025	1,519	**6,713**
Professional, Scientific and Technical Services	1,888	837	695	**3,420**
Administrative and Support Services	706	294	233	**1,233**
Public Administration and Safety	124	49	28	**200**
Education and Training	473	245	181	**898**
Health Care and Social Assistance	1,198	369	306	**1,873**
Arts and Recreation Services	287	214	226	**727**
Other Services	947	434	370	**1,752**
TOTAL	16,982	10,795	8,502	**36,279**

Source: Statistics NZ Business Directory, 2022

3.1.2 Key economic sectors

Key economic sectors are indicated by the relative distribution of employment within and between the TAs. For Hamilton, key economic sectors include higher order service sectors such as Finance and Insurance, Professional Services, Communications, Administration and Health Care and Social Services. The emphasises the role that Hamilton pays in serving the Waikato Region as a whole.

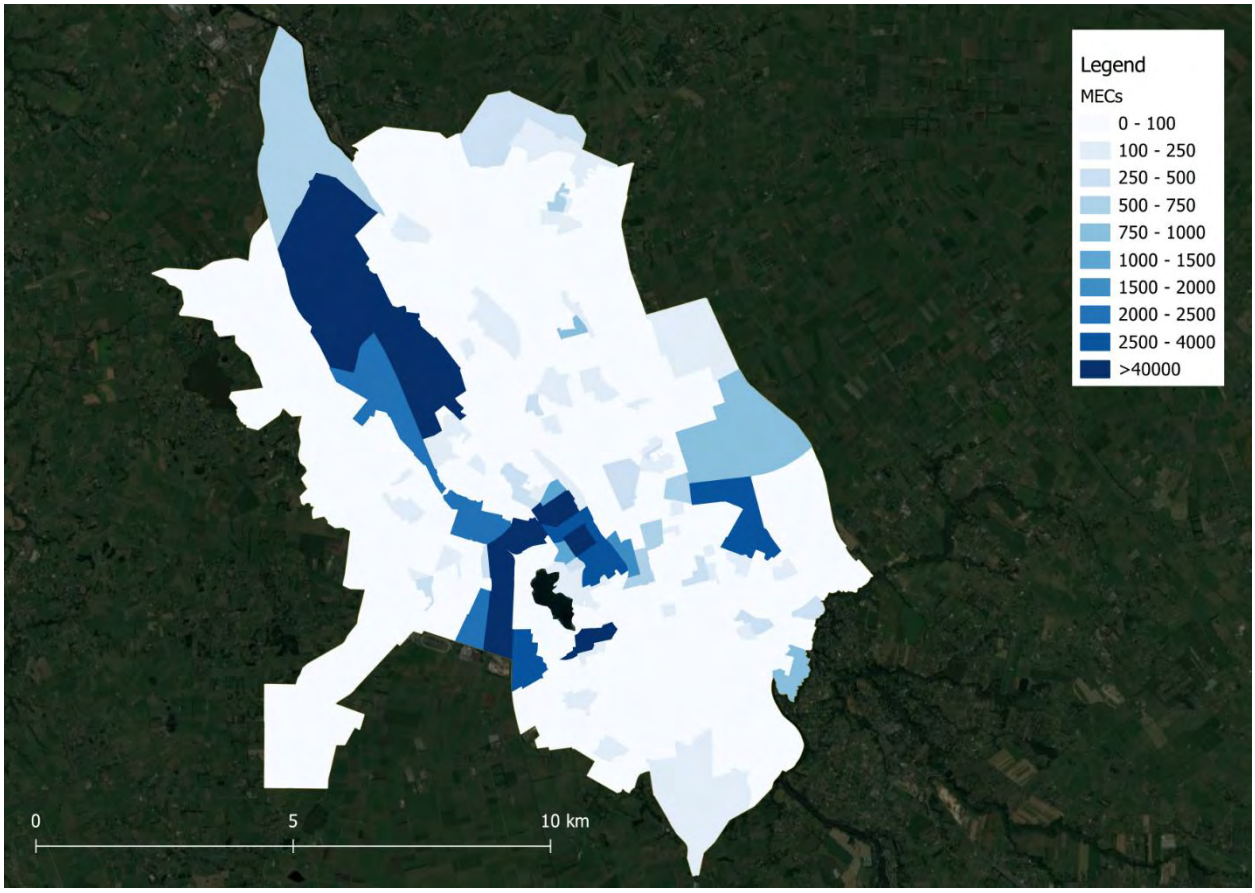
Comparatively, Waikato District has a stronger primary production sector, extractive industries and utilities focus (electricity and gas generation and water and waste services). The district also has a concentration of Transport, Postal and Warehousing services.

Like Waikato, Waipā also has a primary sector focus. Other key economic sectors include Transport, Postal and Warehousing, Rental, Hiring and Real Estate Services and the Arts and Recreational Services. Within Waipā there a number of national level sports specialty training centres which contributes strongly to these key sectors.

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.

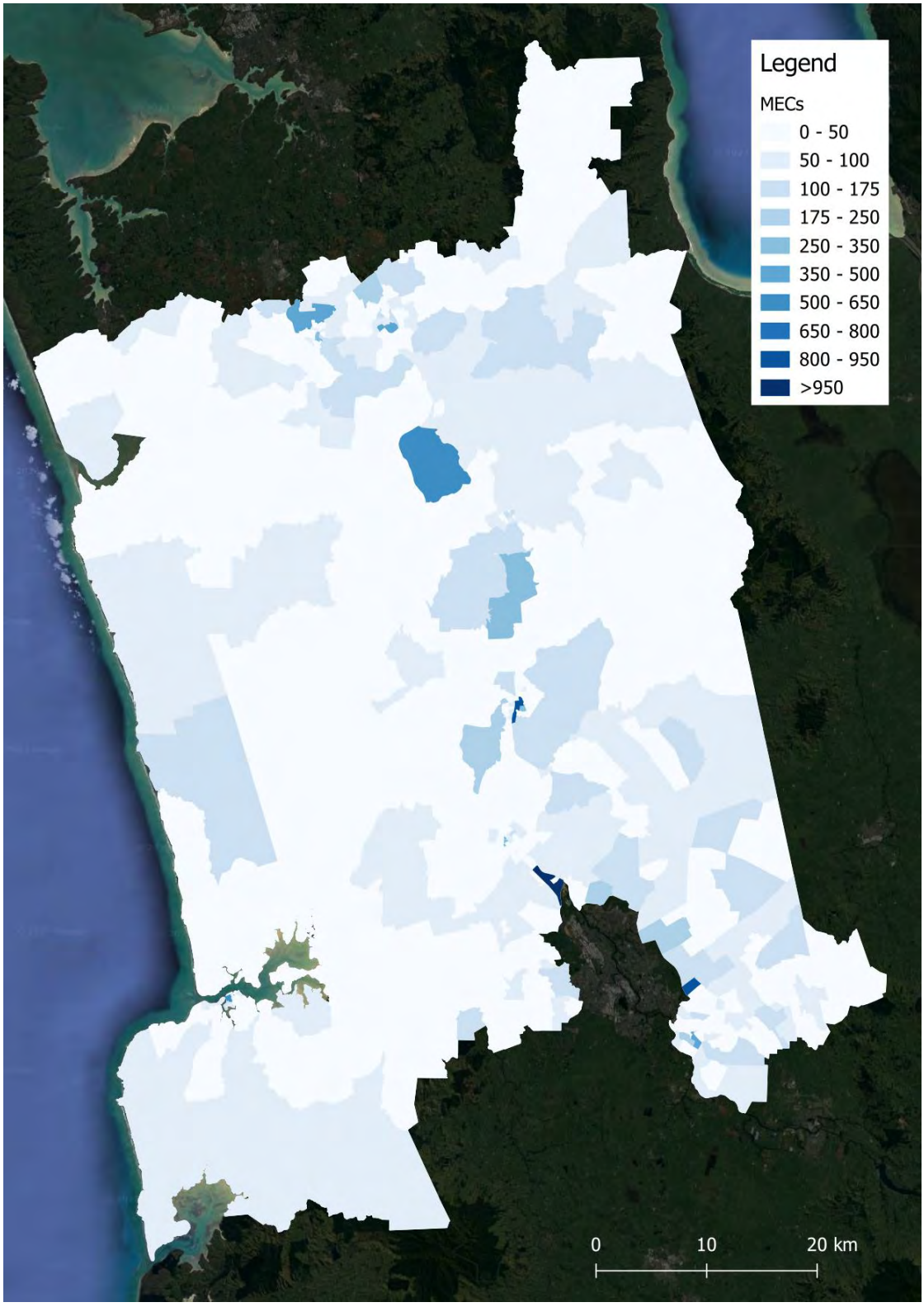
Figure 3-3: Distribution of Employment by SA1, Hamilton City, 2022



Source: Business Directory 2022

Figure 3-3 shows high concentrations of employment in Hamilton's CBD, in the establish areas of Frankton and the industrial core of Te Rapa in the North. To the east, employment centres around the educational institutes and the growth areas that will become the inland port node.

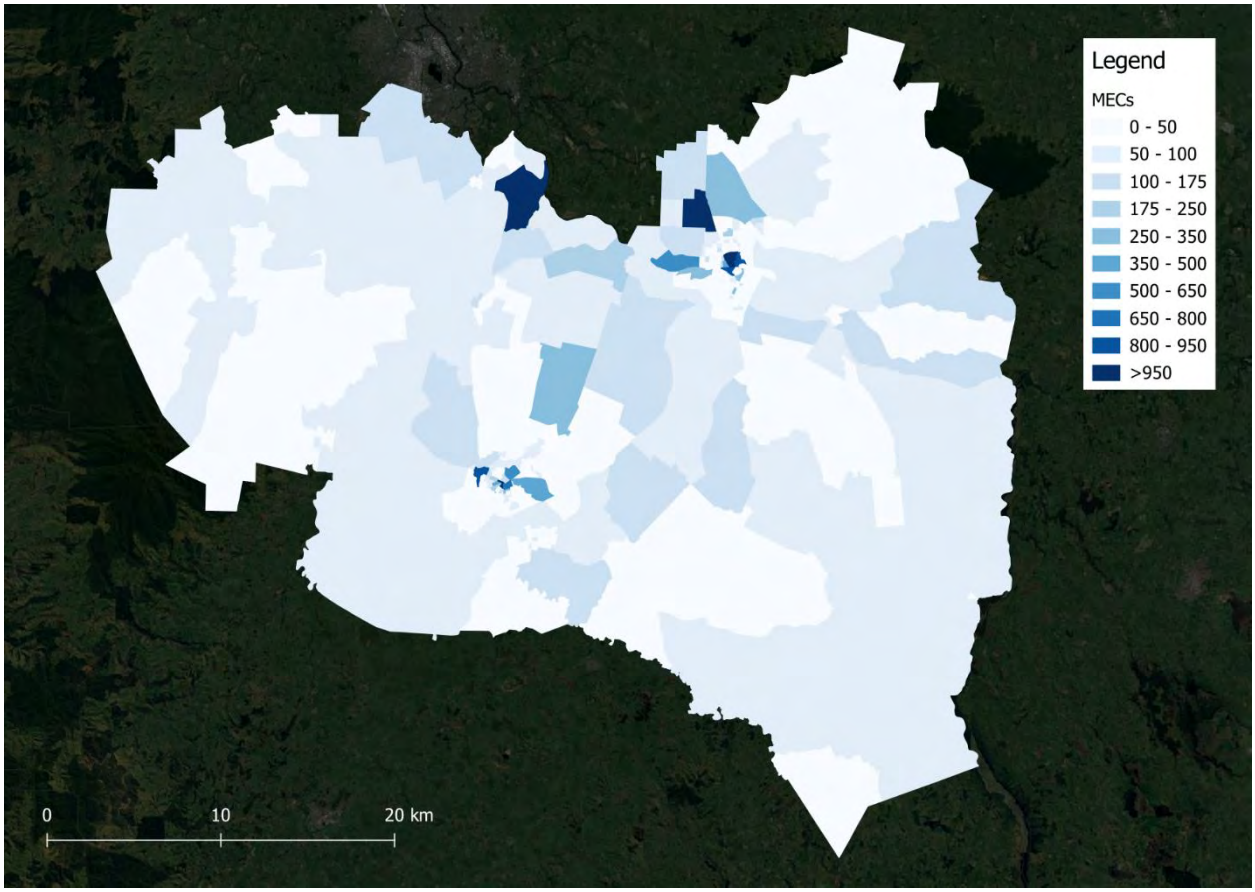
Figure 3-4: Distribution of Employment by SA1, Waikato District, 2022



Source: Business Directory 2022

Employment in Waikato District is distributed between the townships and in the areas around Hamilton City. IN addition, the northern fringe abutting Auckland is also an area of high employment.

Figure 3-5: Distribution of Employment by SA1, Waipā District, 2022



Source: Business Directory 2022

Employment in Waipa District, much like Waikato District is concentrated in the key townships (Cambridge and Te Awamutu) and around Hamilton City.

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

Over the past two decades employment in Hamilton City's economy has increased by over 40,000 workers or around 56% in total (Figure 3-6 and Figure 3-6). Overall, this translates into an average increase of 2.3% annually. Looking at temporal changes, between 2002-2007 the economy grew at 4.1% annually, followed

by a period of negative growth (0.5% p.a.) from 2007-2012. This period of negative growth spanned the Global Financial Crisis which saw many economies halt growth or go into decline. The economy recovered from 2012-2017 growing at 2.3% annually, increasing to 3.2% over the last five years from 2017-2022.

The effects of the slowdown attributable to COVID-19 is reflected in a growth reduction between 2020 and 2022 to 2.8% annually on average (down from an average annual 3.4% growth between 2017 and 2020).

Figure 3-6: Hamilton City Employment Changes (MECs) 2002 – 2022

Sector	2002-2007	2007-2012	2012-2017	2017-2022	Total 2002-2022
Agriculture, Forestry and Fishing	-158	-90	42	414	**208**
Mining	43	-15	-6	11	**33**
Manufacturing	1,303	-1,046	1,598	986	**2,841**
Electricity, Gas, Water and Waste Services	116	225	-20	562	**883**
Construction	2,384	-742	1,852	2,486	**5,980**
Wholesale Trade	742	-45	10	522	**1,229**
Retail Trade	1,664	-498	948	633	**2,747**
Accommodation and Food Services	1,136	-195	856	836	**2,633**
Transport, Postal and Warehousing	-543	-349	191	504	**-197**
Information Media and Telecommunications	5	-854	77	-71	**-842**
Financial and Insurance Services	449	-171	-99	421	**600**
Rental, Hiring and Real Estate Services	-47	-57	264	139	**301**
Professional, Scientific and Technical Services	1,741	954	709	2,038	**5,442**
Administrative and Support Services	3,133	-2,528	772	921	**2,299**
Public Administration and Safety	592	881	427	1,284	**3,184**
Education and Training	439	789	661	627	**2,516**
Health Care and Social Assistance	1,755	1,756	1,879	3,573	**8,962**
Arts and Recreation Services	445	70	78	-121	**472**
Other Services	644	-326	72	342	**732**
TOTAL	15,844	-2,239	10,312	16,106	**40,023**

Source: Statistics NZ Business Directory

Figure 3-7: Hamilton City Employment Changes (%) 2002 – 2022

Sector	2002-2007	2007-2012	2012-2017	2017-2022	Total 2002-2022
Agriculture, Forestry and Fishing	-23%	-17%	10%	88%	**31%**
Mining	1356%	-32%	-20%	42%	**1031%**
Manufacturing	16%	-11%	19%	10%	**35%**
Electricity, Gas, Water and Waste Services	30%	45%	-3%	80%	**229%**
Construction	48%	-10%	28%	29%	**121%**
Wholesale Trade	20%	-1%	0%	12%	**33%**
Retail Trade	21%	-5%	11%	6%	**35%**
Accommodation and Food Services	29%	-4%	18%	15%	**68%**
Transport, Postal and Warehousing	-19%	-15%	9%	23%	**-7%**
Information Media and Telecommunications	0%	-41%	6%	-5%	**-41%**
Financial and Insurance Services	31%	-9%	-6%	26%	**41%**
Rental, Hiring and Real Estate Services	-3%	-4%	20%	9%	**21%**
Professional, Scientific and Technical Services	33%	13%	9%	23%	**102%**
Administrative and Support Services	80%	-36%	17%	17%	**59%**
Public Administration and Safety	19%	24%	9%	25%	**102%**
Education and Training	6%	11%	8%	7%	**36%**
Health Care and Social Assistance	18%	15%	14%	23%	**91%**
Arts and Recreation Services	38%	4%	5%	-7%	**40%**
Other Services	20%	-9%	2%	10%	**23%**
TOTAL	22%	-3%	12%	17%	**56%**

Source: Statistics NZ Business Directory

In addition to the overall growth rates being variable, growth between sectors has been uneven as the economy continues to evolve. Between 2002 and 2022 approximately 56% of the growth has occurred in the professional services, administrative, public service, education, health and social assistance sectors. Strong growth has also occurred in the construction sector (accounting for 15% of all growth) as the City continues to expand on the back of residential growth.

Some sectors have experienced a decline in employment over the past two decades. The decline in these sectors is likely a result of technological changes (Information Media and Telecommunications sectors) and supply chain issues exacerbated by Covid-19 (Transport, Postal and Warehousing) (Figure 3-7).

Waikato District

Since 2002, total employment in Waikato District has increased by 47% (or 8,690 MECs) (Figure 3-8). Over this time period, the economy has grown at an average annual rate of 1.9% (compared with 2.3% average annual growth in Hamilton City). Growth has varied widely with 0.6% annually between 2002 and 2007 increasing to 1.5% annually between 2007 and 2012. Employment increases again from 2012-2017 with a growth rate of 2.0% annually before peaking at 3.7% annually over the last five years between 2017-2022. Employment growth slowed between 2018 and 2020 as a result of COVID-19 (among other things) to 2.5% annually on average. However, since 2020 employment growth has recovered to 4.5% annually (2020-2022).

Growth in Waikato District is accelerating with more than half total employment growth over the past 20 years occurring in the past 5 years. Waikato District is facing growth pressures from the North as business

areas in Auckland fill up and some businesses turn their attention to lower cost available options in northern Waikato. It is also facing growth pressures from Hamilton City, as the city fills available, zoned land and businesses seek land extensive options outside the city boundary.

The largest share of employment growth has occurred within the Construction sector, accounting for 31% of total growth over the last two decades. In percentage terms, Information Media and Telecommunications employment has increased by 382% since 2002, albeit off a low base (Figure 3-8). The professional services, administrative, public service, education, health and social assistance sectors have grown by 119% between 2002-2022, equating to 43% of total growth over the same period. These sectors have increased noticeably compared to Hamilton City (where those sectors grew by 76%) and indicates the district is maturing, in turn meeting the needs of the Waikato's growing population locally.

Agriculture, Forestry and Fishing sector employment has declined since 2002 (the key primary sectors). The biggest decline was seen between 2002-2007 where employment decreased by 1,580 MECs (-21%). Since 2007 employment has fluctuated in the primary production sectors with a net increase of less than 5 MECs. Decreased employment levels were also observed in the Mining sector.

Figure 3-8: Waikato District Employment Changes (MECs) 2002 – 2022

Sector	2002-2007	2007-2012	2012-2017	2017-2022	Total 2002-2022
Agriculture, Forestry and Fishing	-1,583	678	-577	-97	**-1,579**
Mining	105	-88	-128	6	**-105**
Manufacturing	109	-193	826	428	**1,170**
Electricity, Gas, Water and Waste Services	149	98	-156	87	**178**
Construction	703	-82	664	1,402	**2,689**
Wholesale Trade	8	-68	88	311	**338**
Retail Trade	29	-53	140	279	**395**
Accommodation and Food Services	4	18	176	375	**573**
Transport, Postal and Warehousing	117	-229	171	154	**212**
Information Media and Telecommunications	18	30	22	128	**198**
Financial and Insurance Services	62	-22	-48	10	**2**
Rental, Hiring and Real Estate Services	11	53	69	75	**207**
Professional, Scientific and Technical Services	102	183	329	322	**937**
Administrative and Support Services	255	163	-62	275	**630**
Public Administration and Safety	74	490	-23	-39	**502**
Education and Training	158	190	248	241	**837**
Health Care and Social Assistance	61	192	347	228	**827**
Arts and Recreation Services	22	112	-7	125	**253**
Other Services	116	12	78	217	**424**
TOTAL	522	1,484	2,157	4,526	**8,689**

Source: Statistics NZ Business Directory

Figure 3-9: Waikato District Employment Changes (%) 2002 - 2022

Sector	2002-2007	2007-2012	2012-2017	2017-2022	Total 2002-2022
Agriculture, Forestry and Fishing	-21%	12%	-9%	-2%	**-21%**
Mining	22%	-15%	-25%	2%	**-22%**
Manufacturing	6%	-10%	49%	17%	**65%**
Electricity, Gas, Water and Waste Services	77%	28%	-35%	30%	**92%**
Construction	46%	-4%	31%	50%	**177%**
Wholesale Trade	2%	-17%	27%	75%	**88%**
Retail Trade	3%	-6%	16%	28%	**45%**
Accommodation and Food Services	0%	2%	21%	37%	**71%**
Transport, Postal and Warehousing	16%	-27%	27%	19%	**29%**
Information Media and Telecommunications	35%	43%	22%	106%	**382%**
Financial and Insurance Services	71%	-15%	-37%	12%	**2%**
Rental, Hiring and Real Estate Services	3%	14%	16%	15%	**55%**
Professional, Scientific and Technical Services	17%	26%	37%	26%	**154%**
Administrative and Support Services	68%	26%	-8%	38%	**167%**
Public Administration and Safety	24%	127%	-3%	-5%	**161%**
Education and Training	13%	14%	16%	13%	**68%**
Health Care and Social Assistance	10%	28%	40%	19%	**134%**
Arts and Recreation Services	7%	34%	-1%	28%	**82%**
Other Services	27%	2%	14%	34%	**98%**
TOTAL	3%	8%	10%	20%	**47%**

Source: Statistics NZ Business Directory

Waipā District

Since 2002, the district has grown by 51% or by approximately 8,900 MECs, an average of 2.1% annually (Figure 3-10). Employment growth in Waipā District sits slightly higher than Waikato District at 1.9% annually and below Hamilton City at 2.3% annually. Compared to the other FPP TA's, employment growth across the four periods has been relatively stable. Apart from a slowdown in growth between 2007-2012, employment growth has steadily increased in each time period to reach an average growth rate of 3.2% annually between 2017-2022 – in line with Hamilton and below Waikato.

As seen in Hamilton and Waikato, there has been strong growth within the Construction sector since 2002, an increase of 2,170 MECs (Figure 3-10) or 150% (Figure 3-11). Again, this sector growth is driven by residential and civil development within Waipā's main townships. Employment growth in Retail Trade and Accommodation and Food Services sectors accounted for 19% of total growth over the past two decades. These two sectors have also grown by 73% since 2002, which is greater than both Waikato at 57% and Hamilton at 46%. A further 26% of total growth was concentrated in the household services sectors[12] while 18% was focused on business services[13]. Overall, this points to a greater level of growth in household services compared to business services for Waipā.

[12] Education and Training, Health Care and Social Assistance, Arts and Recreation and Other Services.

[13] Information, Media and Telecommunications, Financial and Insurance, Rental, Hiring and Real Estate, Professional, Scientific and Technical Services, Admin and Support Services and Public Admin and Safety

The Agriculture, Forestry and Fishing sector was the only sector that saw a decline in employment since 2002, losing almost 600 MECs or a 13% reduction. This trend was also seen observed for the Waikato District which experienced a 21% decline in its primary production sectors.

The effects of a COVID-19 slowdown are also somewhat evident, with growth between 2018 – 2020 running at 2.2% annually. However, over the past two years between 2020-2022 growth has increased to 3.0% annually on average.

Figure 3-10: Waipā District Employment Changes (MECs) 2002 – 2022

Sector	2002-2007	2007-2012	2012-2017	2017-2022	Total 2002-2022
Agriculture, Forestry and Fishing	-524	191	-254	-3	**-591**
Mining	21	-4	-18	23	**22**
Manufacturing	394	-66	162	430	**920**
Electricity, Gas, Water and Waste Services	6	43	-13	83	**120**
Construction	488	-260	875	1,065	**2,169**
Wholesale Trade	150	64	122	98	**435**
Retail Trade	77	309	213	242	**842**
Accommodation and Food Services	413	94	100	254	**862**
Transport, Postal and Warehousing	-93	-20	246	-123	**10**
Information Media and Telecommunications	-53	39	21	27	**34**
Financial and Insurance Services	93	3	-3	60	**153**
Rental, Hiring and Real Estate Services	-45	13	49	45	**63**
Professional, Scientific and Technical Services	484	187	72	309	**1,052**
Administrative and Support Services	-182	111	71	166	**166**
Public Administration and Safety	60	49	26	163	**298**
Education and Training	137	296	120	203	**756**
Health Care and Social Assistance	-30	129	264	455	**818**
Arts and Recreation Services	74	22	101	31	**228**
Other Services	85	145	33	293	**555**
TOTAL	1,557	1,344	2,187	3,822	**8,911**

Source: Statistics NZ Business Directory

Figure 3-11: Waipā District Employment Changes (%) 2002 – 2022

Sector	2002-2007	2007-2012	2012-2017	2017-2022	Total 2002-2022
Agriculture, Forestry and Fishing	-12%	5%	-6%	0%	**-13%**
Mining	74%	-8%	-39%	80%	**77%**
Manufacturing	22%	-3%	8%	19%	**51%**
Electricity, Gas, Water and Waste Services	7%	45%	-10%	67%	**135%**
Construction	34%	-13%	52%	42%	**150%**
Wholesale Trade	24%	8%	15%	10%	**71%**
Retail Trade	5%	17%	10%	11%	**50%**
Accommodation and Food Services	65%	9%	9%	21%	**137%**
Transport, Postal and Warehousing	-11%	-3%	33%	-13%	**1%**
Information Media and Telecommunications	-47%	66%	22%	23%	**31%**
Financial and Insurance Services	49%	1%	-1%	21%	**81%**
Rental, Hiring and Real Estate Services	-9%	3%	11%	9%	**13%**
Professional, Scientific and Technical Services	57%	14%	5%	19%	**124%**
Administrative and Support Services	-35%	33%	16%	32%	**32%**
Public Administration and Safety	24%	16%	7%	42%	**120%**
Education and Training	10%	20%	7%	11%	**57%**
Health Care and Social Assistance	-3%	13%	24%	33%	**81%**
Arts and Recreation Services	15%	4%	18%	5%	**47%**
Other Services	16%	23%	4%	37%	**104%**
TOTAL	9%	7%	11%	17%	**51%**

Source: Statistics NZ Business Directory

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. In the 2017/18 HBA assessment and again in the 2021 HBA assessment, we relied on two related economic models to generate employment and GDP projections.

- Waikato Integrated Scenario Explorer (WISE) Model. This has recently undergone a significant update including updating the Land Use files, the Population projections and the Economic Models that reside within the Explorer.
- Unconstrained Economic Futures Model (EFM), to provide an assessment unconstrained by Land Use limits.

The WISE model was developed by ME as part of the Sustainable Pathways stream of research funded by Central Government. Details on its development and background are contained in the 2017 HBA prepared for Future Proof Partners under the NPS-UDC. Those details are not repeated here. For the 2021 iteration, the model underwent a significant refresh, with new aspirations, zoning information, population projections (prepared by the NIDEA unit at Waikato University) and a new updated Economic Model prepared by M.E Research.

Following release of the population and household projections contained within WISE, the Future Proof Partners met to discuss and determine the most appropriate basis for assessing growth to inform the HBA. In the 2017/18 iteration of the HBA, each Council was left to determine its own growth future. That led to the situation where Waikato District and Waipā District relied on the high growth future, while Hamilton relied on a low growth future. In the 2021 iteration and in this 2023 iteration, the FPP Councils have agreed to base the HBA on the updated High Growth projections contained within WISE.

The rationale for this is that in order to ensure that issues such as housing affordability and unavailability and the high price of industrial land are addressed, planning for and catering for a High Growth future is the most prudent approach. Given the monitoring role Councils are playing, changes or deviations from this approach can lead to adjustments or delays on zoning should the growth be delayed.

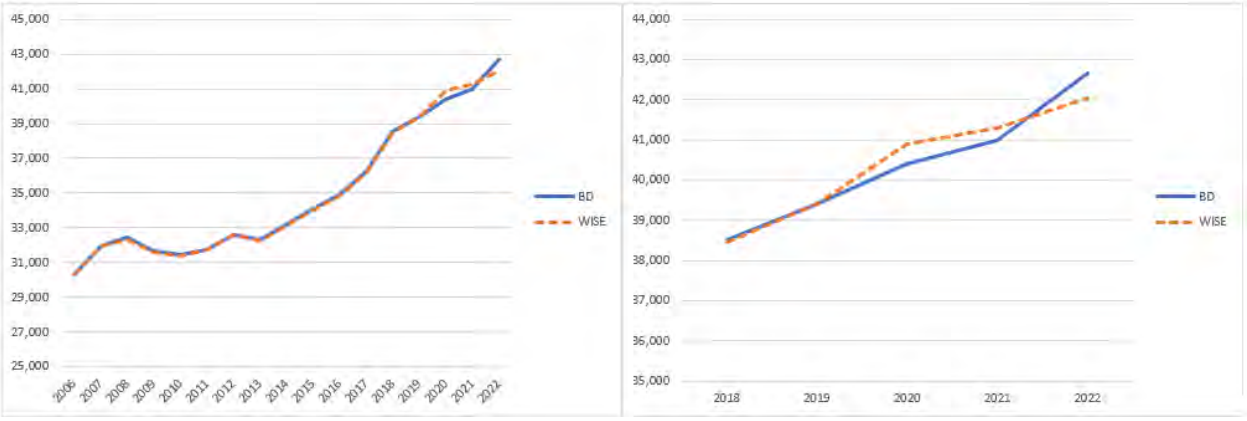
As with the 2021 assessment, the link between the household capacity assessment and the business assessment is important. The same population and household projections drive both sets of models. This ensures consistency across the reports and ensures Council are fully informed of the effects of alternative growth futures.

3.3.1 WISE vs Statistics NZ

Before settling on the WISE projections as the definitive projection set to guide future demand for business land, it is important to understand the relationship between recent actual growth in employment as captured in Statistics New Zealand's Business Frame, and the WISE projections. The most recent WISE projections are based on updated NIDEA population and household projections that take into account the early effects of COVID-19. These are reflected in short term slowdowns across some sectors, followed by modest increases. Note that the WISE projections adopt the Statistics New Zealands Business Directory employment counts from 2006 to 2018 as a basis for projections (along with projections of capital formation rates and export performance projections from key export sectors).

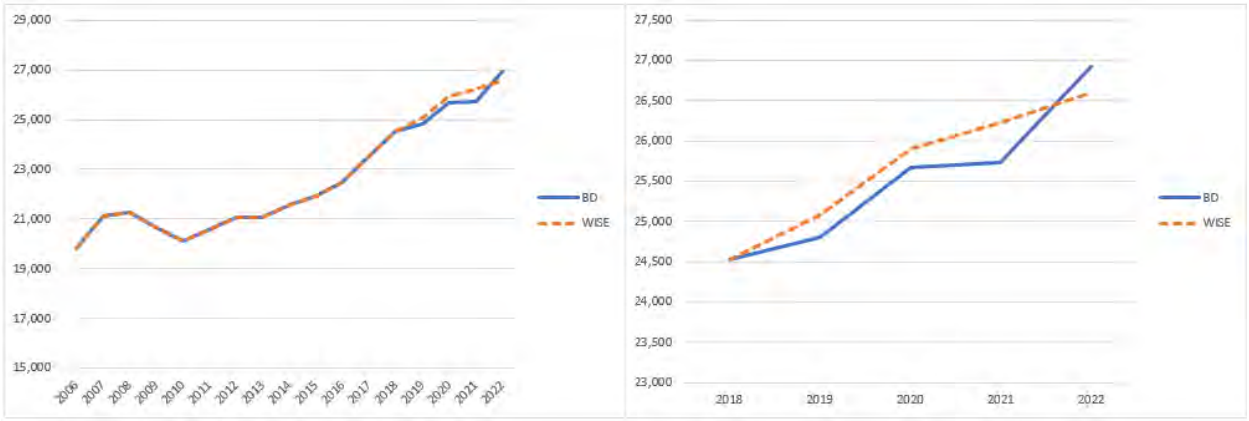
Figures 3-12 3-13 and 3-14, below highlight the relationship between WISE projections from 2018 to 2022 and BD employment counts over the same timeframe.

Figure 3-12: Hamilton City Commercial Employment WISE vs Statistics NZ BD, 2006 - 2022



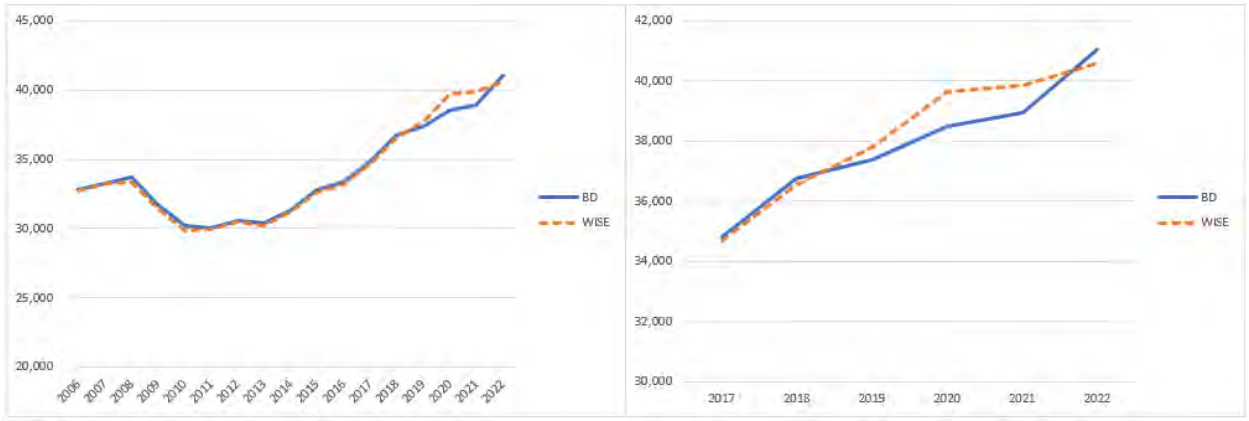
Source: Statistics NZ Business Frame, Market Economics

Figure 3-13: Hamilton City Retail Employment WISE vs Statistics NZ BD, 2006 - 2022



Source: Statistics NZ Business Frame, Market Economics

Figure 3-14: Hamilton City Industrial Employment WISE vs Statistics NZ BD, 2006 - 2022



Source: Statistics NZ Business Frame, Market Economics

The comparison shows that, in general the WISE projections overstated employment in the first 2 years of the projections before slowing to end up slightly behind the BD in 2022 in all three categories. The largest difference occurs in Industrial where the WISE projections overstated employment in 2020 and 2021 by 3% and 2.4% respectively, while falling 1.0% behind in 2022.

Retail projections overstated 2020 and 2021 be 0.9% and 1.9% respectively, before falling 1.2% behind in 2022. Commercial overstated employment in 2020 and 2021 by1.2% and 0.8% respectively before falling 1.4% behind in 2022.

In general, the differences are not great and the jump in the BD in 2022 reflects a catch-up, post COVID-19 that is most likely to be a one off adjustment. The future years are more likely to respond to the more subdued growth projections contained within the WISE model.

3.3.2 WISE Projections

Figure 3-15 highlights anticipated growth in employment (MECs) across the FPP area from 2022 to 2052 (excluding Matamata Piako District which is reported on separately in section 7.5, below). The data indicates a prolonged slowdown in growth as the effects of COVID-19 work through the economy. Between 2020-2023, the average annual growth rate dropped to 1.4% from an average of around 4% between 2015-2020. An improvement in the growth rate is projected over the next 3 years (to 2025) to an average of 1.7% per annum. This is followed by a slight decrease between 2025-2032 to 1.4% annually, before declining again in the long run to around 1.0% annually between 2032-2052. This long-term decline in growth rates is in line with national trends and is driven by declining population growth.

In total, the FPP area is expected to add 8,300 employees in the short term, a further 17,900 between 2025-2032 and 39,700 between 2032 and 2052.

Figure 3-15: Future Proof Partners Area Employment Growth (MECs), 2022 – 2052

Sector	2022	2025	2032	2052	Growth		
					2022-2025	2025-2032	2032-2052
Agriculture, Forestry and Fishing	11,900	12,400	13,400	15,300	500	1,000	1,900
Mining	500	500	500	500	0	0	0
Manufacturing	16,700	17,600	19,800	24,300	900	2,100	4,500
Electricity, Gas, Water and Waste Services	1,800	1,900	2,200	2,800	100	300	600
Construction	17,900	18,900	21,000	24,800	1,100	2,100	3,800
Wholesale Trade	6,500	6,900	7,700	9,400	400	800	1,700
Retail Trade	14,200	14,500	15,300	16,400	300	800	1,100
Accommodation and Food Services	9,300	9,800	10,700	12,100	400	900	1,500
Transport, Postal and Warehousing	4,300	4,500	5,000	6,100	200	500	1,100
Information Media and Telecommunications	1,700	1,800	2,000	2,600	100	200	500
Financial and Insurance Services	2,500	2,700	3,200	4,200	200	500	1,000
Rental, Hiring and Real Estate Services	3,000	3,200	3,400	4,000	100	200	600
Professional, Scientific and Technical Services	13,600	14,400	16,200	20,800	800	1,800	4,600
Administrative and Support Services	8,800	9,500	11,000	14,200	700	1,400	3,200
Public Administration and Safety	7,600	7,900	8,600	10,600	300	700	1,900
Education and Training	14,400	15,100	16,900	21,500	800	1,800	4,600
Health Care and Social Assistance	19,800	20,400	22,000	26,100	700	1,600	4,100
Arts and Recreation Services	3,300	3,400	3,800	4,700	100	400	900
Other Services	5,900	6,300	7,000	8,800	300	700	1,800
Total	**163,500**	**171,700**	**189,700**	**229,300**	**8,300**	**17,900**	**39,700**

At the sector level there are some key trends that will have a significant impact on provision of land and capacity. The most employment growth out to 2052 occurs in;

- Manufacturing +7,570 MECs or +45% growth,
- Professional, Scientific and Technical Services +7,230 MECs or +53% growth,
- Education and Training +7,110 MECs or +49% growth, and,
- Construction +6,670 MECs or +39% growth.

In percentage terms the highest growth occurs in Financial and Insurance Services sector (69% growth to 2052) followed by Admin and Support Services (61% growth) and the Utilities sector (59% growth).

The key points that emerge from economic growth at the macro level are;

- Overall growth in employment expectations have reduced compared with the 2017 assessment, as observed in the previous 2021 iteration.
- The effects of COVID-19 that have dampened growth over recent years wear off to a certain degree in the short term.
- Over the medium to long term growth tapers off, in line with population growth declines.

Note that the population growth projections have been generated by NIDEA in consultation with Councils. Consistent with the 2021 iteration, FPP have elected to adhere to a singled view of the future, selecting a High Growth future path upon which to base assessment of capacity and sufficiency of supply to meet demands.

The High growth future projected by NIDEA, sits slightly lower than the Statistics New Zealand's High growth future.

The details of growth at the local level and how they translate into demand for land and space requirements are covered in Section 4.

3.3.3 Drivers of Growth

As with the previous assessment, the economics module that sits within WISE, generates estimates of future Employment, Output and contributions to GDP. These estimates are driven by a set of "Business as Usual" commodity and service parameters, translated into demands. In the model framework 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 NIDEAs 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.

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 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 (Pokenō, Tuakau and even Te Kauwhata) is driven by spill-over 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. There are some questions around ownership structures of the land TGH are looking to develop that may cause some businesses to seek alternative locations. To date there is little evidence that ownership is having an effect on Ruakura's development.

- Waikato Expressway and other Transport links: The recently completed 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. In addition, the H2A project will drive transport and logistics related growth over the coming decades along with decisions on the location of Ports to serve the upper North Island

- Port Infrastructure: The other key component of infrastructure likely to impact growth and development within the FPP area is the final shape of the Upper North Island Port arrangements. With new proposals for expansion at Marsden Point, increased pressure on Ports of Auckland to relocate and Ports of Tauranga becoming more locationally constrained, there are threats and opportunities for FPP industrial land developers across the FPP.

The FPP area forms one side 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 translates into demand for business land and built form.

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

Employment projections generated at the SA2 level through the WISE model, have 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. As with previous assessments, averages have been used. These averages have been informed by a combination of FPP rating data and M.E.s MECs. We have relied on our

previous experience in similar analyses as well as information published by other commercial entities[14] to cross-check these values. With respect to Hamilton City employment, we have changed the manner in which demand is estimated.

- In the previous HBA assessment (2020/21) we assumed that employment growth translated directly into demand for space and land. Following investigations in support of a Plan Change that involved rezoning a portion of future industrial land for residential purposes, we have determined that a reasonable portion of demand growth (almost 20%) occurs within existing businesses. Therefore, we have assumed that this will occur within Hamilton (in particular) where there is significant established employment infrastructure and capacity within established buildings to accommodate a portion of future growth. In addition, pressure from other land uses are higher in Hamilton than in the less developed economies (intensive housing for example).

- This has not been applied for Waikato or Waipa Districts, which means that their demand projections for new land and space are potentially higher than will actually materialise. This is a conservative stance to adopt within these less intensively developed economies.

This approach represents a difference from the 2021/22 BCA report – meaning that for Hamilton, the results are not directly comparable.

With respect to Waikato and Waipa, M.E have taken the view that it is not as important to reflect these types of productivity shifts. The reality of the more extensive industrial areas that are present in Waikato and Waipa is that they may operate in the opposite direction. For example, it may be the case that as technology changes, the amount of space required per worker increases as fewer workers may be required to handle wider operations (for example automation in warehousing may still require large footprint buildings, but lower levels of employment). On balance, M.E have decided to leave the ratio's unchanged in Waikato and Waipa District as this is more likely to represent a middle ground.

In these districts, if capacity exceeds demand (or demand + margin), then it is fairly certain that demand is catered for appropriately.

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-UD, 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

[14] For example Colliers and JLL

not be manufacturing in nature are categorised as Light Industrial for the purposes of the NPS-UD. These include, yard-based storage, transport and distribution, construction, utilities, and wholesaling activities. For the purposes of the 2023 assessment, we have identified a category within Industrial for businesses that are large water users (15,000l a day or more). These "Wet Industries" have particular locational attributes that mean FPP planners need to understand their growth future.

- Commercial: As well as capturing commercial office activities and public administration. Commercial captures the paid accommodation sectors, health and education. This is due to the nature of the space types they occupy. We note that central government is a major developer of educational infrastructure and have the ability to designate land for schools as part of the residential development process. This means that the education sector as a whole is not subject to the same capacity constraints as other commercial activities.

- 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. Note the Retail category also captures hospitality (food service) sector.

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.

Note that District Plans are relatively permissive. This means that there are often a wide range of different activities enabled on a single land parcel. This can make the allocation of growth problematic, common sense has been applied where there are obvious inconsistencies. For example, there is an ability for some activities that are generally classified as "Industrial" to locate in the CBD (based on the Activity Tables in the District Plan). It would be inaccurate to state that the CBD provides capacity to cater for general Industrial growth. Therefore, in order to be accurate, a minor allowance has been made for small

mechanical servicing type activities to locate in the CBD, leaving industrial growth to be focused in Industrial zones.

M.E have assumed that a vacant land parcel that is enabled for a particular activity is therefore counted as capacity for that activity, which means that there is a degree of double counting. This has been worked around by simply splitting each multi use parcel by the number of activities that can occur on it and apportioning growth accordingly. In reality, a single parcel will be occupied by (usually) a single activity. However, until that occurs, the parcel remains available to all activities enabled.

4.1.2 Exclusion of Rural activity

The framework also captures rural activity in the form of farms. Rural activity 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 from the WISE model at the SA2 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.

Estimated demand reported below does not include the additional 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, or to facilitate a market operational margin. The data in Section 7.4 incorporates these market competitiveness margins, over and above estimated demand.

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, 2022-2052 (ha)

Broad Sector	Hamilton City	Waikato District	Waipa District	Total FPP Area
Commercial	117	32	50	200
Retail	27	7	6	39
Industrial	398	153	67	618
Tot. Bus. Demand (ha)	**542**	**192**	**122**	**856**

As the major population centre, 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.

Industrial land demand represents nearly three quarters (72%) of total business land demand across the FPP area. Accordingly, for all TAs the highest demand for business land is for industrial land. This is driven by a higher floorspace and land per employee ratio for industrial activities as identified in section 4.1.

Approximately 23% (200ha) of total FPP business demand is for commercial land while retail land accounts for only 5% (39ha) of total business demand.

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 6 reporting areas within the City. Wet industrial[15] land demand, a subset of industrial land has also been reported on. While it is important that the city provides a range of locations for different types 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

Figure 4-3 presents commercial land demand for Hamilton over the short, medium and long term. Over the long term (total over 30 years), Hamilton City requires an additional 117ha of commercial land to cater for anticipated growth. In the short term (next 3 years) an additional 14ha is required and 43ha in total over the medium term (next 10 years).

Figure 4-3: Hamilton Commercial Land Demand (ha), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Te Rapa	2.8	8.6	18.9
Chartwell	0.1	0.3	0.7
Frankton	0.9	3.1	9.2
CBD	1.7	6.0	17.3
Ruakura	0.7	2.1	5.4
Other	7.3	23.3	65.8
Total	**13.5**	**43.4**	**117.4**

Demand growth is strong across the city – reflecting the expansion and growth of Hamilton. The largest area of demand growth is anticipated within Te Rapa, located in the north of the city. There is also strong demand growth in Frankton and the CBD. We would expect growth to occur in these areas as the CBD is the City's main commercial hub and Frankton is located immediately adjacent to the CBD.

Commercial office activity tends to congregate in centres whereas many of the reporting areas listed above are purely residential or industrial catchments. Therefore, 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. It is not efficient to have commercial space distributed widely and evenly across the urban landscape as this

[15] Wet industrial activities use large quantities of water and include activities such as food manufacturing plants, breweries and meat processing plants.

minimises any agglomeration benefits[16] 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 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

Residential growth is closely linked to demand for retail land. Due to changes in household demand characteristics, demand for retail goods and services by households increases by approximately 1% annually (in real terms) on a per household basis. This means the demand for retail land grows even in the absence of growth in household numbers.

In total, we estimate Hamilton City will require an additional 26.5ha of retail land over the next 30 years (Figure 4-4). Over the next 3 years, 3.6ha is required and 11.7ha in total within the next 10 years.

Figure 4-4: Hamilton Retail Land Demand (ha), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Te Rapa	1.0	2.8	4.4
Chartwell	0.2	0.7	2.0
Frankton	0.3	1.0	2.7
CBD	0.4	1.5	3.1
Ruakura	0.0	0.1	0.3
Other	1.7	5.6	14.0
Total	**3.6**	**11.7**	**26.5**

A key characteristic of retail and commercial land is that (in many instances) they are inter-changeable. This means that they can be considered as a single entity. Demand for commercial land derived from the types of activities that are able to locate in centres translates directly to demand for commercial built form. This can be accommodated on top of retail land – with the proviso that the retail activity occupies the ground floor and commercial above.

Industrial Land

The amount of land that industrial activities require is extensive relative to the levels of employment they sustain. In addition, industrial activities are extremely sensitive to land price and are easily outbid for space

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

by (mostly) large format retail activities. Despite this, industrial activities are key economic drivers and often have deep linkages back through the wider economy, sustaining employment in both supporting industries and service sectors. Within Hamilton, industrial activities also 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. This occurs because the price signals do not capture all of the actual costs and benefits that arise from having a well located robust industrial sector within the city. By protecting industrial land resource for industrial activities, Councils are helping to ensure that market failure is avoided and an overall efficient economy results.

Market failure occurs when 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 costs associated with an inefficient economy are not being paid for by the retailers, because the market cannot monetise those costs. Large format retailers are not responding to appropriate market price signals as a result. They gain a free ride at the expense of the economy overall.

Figure 4-5: Hamilton Industrial Land Demand (ha), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Te Rapa	32.1	102.7	205.7
Chartwell	0.2	0.5	1.5
Frankton	7.1	26.0	78.2
CBD	2.3	8.1	24.3
Ruakura	1.4	4.3	13.4
Other	8.2	25.4	74.7
Total	**51.2**	**166.9**	**397.8**

In total over the next 30 years, Hamilton City requires an additional 398ha of industrial land (Figure 4-5). Approximately 51ha are required in the short term (next 3 years) and 167ha over the next 10 years (medium term).

'Wet' Industries - Industrial Land Demand

So called 'wet' industrial activities[17] require significant amounts of water to operate (15,000 litres per day), differentiating them from other industrial activities. This has significant implications in terms of providing infrastructure to meet their needs (water, wastewater). There it is important to understand growth and locational patterns.

[17] A full listing is appended to this report in Appendix 4

Figure 4-6: Hamilton Wet Industries Land Demand (ha), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Te Rapa	1.7	5.7	8.4
Chartwell	0.0	0.0	0.0
Frankton	0.6	1.8	3.7
CBD	0.0	0.0	0.1
Ruakura	0.1	0.2	0.6
Other	0.0	0.1	0.3
Total	**2.4**	**7.9**	**13.1**

Based on assessing the share of each WISE 48 sector output each of the 'wet' industries represents (2022 employment share at a 6 digit ANZSIC level). We estimate that an additional 12.1ha of industrial land is required for 'wet' industries in the long term in Hamilton (Figure 4-6). The majority of demand is concentrated in Te Rapa and Frankton – key industrial nodes within the City. Over half (64% or 8.4ha) of total long term demand is focused on Te Rapa and a further 3.7ha arises in Frankton.

Note, that the demand may arise in these locations, but unless there is sufficient capacity in those areas to accommodate it, those businesses will seek to locate elsewhere within Hamilton.

In the short term there is demand for an additional 2.4ha, increasing to 7.9ha in the medium term for Hamilton City.

Appendix 7: Existing Land Demand Sensitivitycontains sensitivity analysis of the business land demand in Hamilton where all new employment is assumed to locate on previously vacant land. This differs to the base case modelling which instead includes an allowance for a portion of demand to be accommodated through the gradual intensification of existing industrial areas. This occurs through a combination of employment growth within existing firms (without the need to require new premises) and some intensification in the level of development on existing sites.

4.2.2 Waikato District Future Business Land Demand

Business land demand within Waikato District has been allocated to 7 reporting areas based around the significant townships, urban areas and their connectivity.

Commercial Land

In terms of commercial land demand, Waikato District is estimated to require 32.4ha of commercial land over the long term (30 years) (Figure 4-7). The demand is spread relatively evenly across the Waikato towns with the largest share of demand falling within the 'Rest of Waikato' designation with 12.1ha. Strong demand is projected in Tuakau with 4.9ha while other areas demand approximately 2.8ha-3.7ha.

Figure 4-7: Waikato Commercial Land Demand (ha), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Pokeno	0.3	0.9	2.8
Tuakau	0.5	1.9	4.9
Te Kauwhata	0.4	1.5	3.0
Huntly	0.3	1.3	3.1
Ngaruawahia	0.3	1.1	2.9
Raglan	0.5	1.4	3.7
Rest of Waikato	1.1	4.2	12.1
Total	**3.5**	**12.3**	**32.4**

In the short term 3.5ha is demanded, increasing to 12.3ha in total over the medium term.

Retail Land

Estimated retail land demand for Waikato District is 6.8ha in the long term (Figure 4-8). The largest share of demand arises from Tuakau in the North – this is expected due to the area's projected growth on the back of Auckland's expansion. Some demand growth is projected for Raglan and Ngaruawahia, 1.0ha and 0.8ha respectively in the long term. The rest is distributed across the remaining towns (1.2ha) and the Rest of Waikato designation (2.1ha).

In the short term (3 years) retail land demand for Waikato District is 1.1ha, increasing to 3.1ha over the medium term.

Figure 4-8: Waikato Retail Land Demand (ha), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Pokeno	0.1	0.2	0.4
Tuakau	0.6	1.3	1.8
Te Kauwhata	0.0	0.2	0.5
Huntly	0.0	0.2	0.4
Ngaruawahia	0.0	0.1	0.8
Raglan	0.2	0.4	1.0
Rest of Waikato	0.2	0.6	2.1
Total	**1.1**	**3.1**	**6.8**

Industrial Land

Projected industrial land demand in Waikato District is significant. An estimated additional 153.0ha of industrial land is required over the long term (Figure 4-9). A large share of that demand is spread across the Rest of Waikato reporting area (71ha), as the northern areas of Waikato District respond to strong growth pressure from industrial developers seeking alternative locations as Auckland land values increase. Pokenō, Raglan, Te Kauwhata and Tuakau are also expected to experience strong demand for industrial land.

Figure 4-9: Waikato Industrial Land Demand (ha), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Pokeno	2.5	7.2	21.0
Tuakau	3.2	7.9	14.3
Te Kauwhata	2.0	7.8	14.0
Huntly	1.1	3.6	8.5
Ngaruawahia	0.8	2.7	8.5
Raglan	2.7	6.4	15.9
Rest of Waikato	9.6	27.4	70.8
Total	**21.9**	**63.1**	**153.0**

Over the short term (next 3 years) 21.9ha of industrial land is required, increasing to 63.1ha in total over the next 10 years.

Wet Industries - Industrial Land

For Waikato, Wet industries land demand is estimated at 13.9ha in the long term. Just over half or 7.4ha is distributed across the rest of the Waikato (primarily in the north) and another 38% (5.3ha) is concentrated in Pokeno. In total, 2.4ha is demanded in the short term, increasing to 6.7ha in the medium term.

Figure 4-10: Waikato Wet Industries Land Demand (ha), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Pokeno	0.6	2.0	5.3
Tuakau	0.2	0.4	0.7
Te Kauwhata	0.0	0.0	0.0
Huntly	0.0	0.1	0.0
Ngaruawahia	0.0	0.0	0.1
Raglan	0.1	0.1	0.3
Rest of Waikato	1.5	4.1	7.4
Total	**2.4**	**6.7**	**13.9**

4.2.3 Waipā District Future Business Land Demand

As with Waikato District, demand in Waipā District is recorded at town representative areas. Areas which are proximate to each other are combined and reported on.

Commercial Land

Over the next 30 years, there is demand for 49.6ha of commercial land in Waipā (Figure 4-11). The majority of land demand is concentrated into and around the large centres of Cambridge-Karapiro (24.9ha, 50% of total commercial land demand) and Te Awamutu-Kihikihi (15.8ha, or 32% of total commercial land demand).

Figure 4-11: Waipā Commercial Land Demand (ha), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Cambridge-Karapiro	3.2	9.7	24.9
Te Awamutu-Kihikihi	1.4	4.3	15.8
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	0.5	1.9	6.9
Rest of Waipa	0.2	0.7	2.0
Total	**5.3**	**16.6**	**49.6**

In the short term 5.3ha of commercial land is required to cater for anticipated growth, increasing to 16.6ha in the medium term.

Retail land

Long term demand for retail land in Waipā is estimated at 5.6ha (Figure 4-12). Just over half (2.9ha) of that demand arises from Cambridge-Karapiro and another 37% (2.1ha) arises out of Te Awamutu-Kihikihi.

Figure 4-12: Waipā Retail Land Demand (ha), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Cambridge-Karapiro	0.4	1.3	2.9
Te Awamutu-Kihikihi	0.2	0.6	2.1
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	0.1	0.2	0.5
Rest of Waipa	0.0	0.0	0.1
Total	**0.6**	**2.1**	**5.6**

In total, Waipā Districts requires less than 1ha of retail land in the next 3 years. This increases to 2.1ha in the medium term.

Industrial land

Estimated industrial land demand in Waipā is 66.8ha over the long term (next 30 years). This is less than half the industrial land demand of Waikato District, even though currently, their manufacturing sectors are approximately the same size (2,960 versus 3,740 employees for Waikato and Waipa respectively).

Like commercial and retail land demand, industrial land demand is concentrated within the main centres Cambridge-Karapiro and Te Awamutu-Kihikihi with 29.4ha and 21.8ha respectively. For the Rukuhia-Ngahinapouri-Ohaupo-Pirongia reporting area there is strong projected demand growth of 12.4ha in the long term. As mentioned already, the strong growth in industrial land reflects the requirement for large land areas for industrial uses, as well as strong growth in industrial employment generally.

Figure 4-13: Waipā Industrial Land Demand (ha), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Cambridge-Karapiro	2.5	8.6	29.4
Te Awamutu-Kihikihi	2.8	7.0	21.8
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	1.3	4.0	12.4
Rest of Waipa	0.3	1.0	3.1
Total	**7.0**	**20.6**	**66.8**

In the short term, Waipā requires 7.0ha of industrial land, increasing to 20.6ha in the medium term (Figure 4-13).

Wet Industries Land Demand

Approximately 6.8ha of wet industries land is demanded in Waipā District over the next 30 years (Figure 4-14). Over two thirds (68% or 4.6ha) of this demand is focused on Cambridge-Karapiro and another 1.7ha arises from Te Awamutu-Kihikihi. The remaining demand, some 0.5ha is distributed across the other reporting areas.

Total estimated demand for wet industrial land in Waipā is 0.4ha in the short term. Demand increases to 1.7ha in total over the medium term.

Figure 4-14: Waipā Wet Industrial Land Demand (ha), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Cambridge-Karapiro	0.0	0.9	4.6
Te Awamutu-Kihikihi	0.3	0.6	1.7
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	0.0	0.1	0.5
Rest of Waipa	0.0	0.0	0.0
Total	**0.4**	**1.7**	**6.8**

4.3 Future Demand for Urban Business Floorspace

In terms of retail and commercial sectors, floorspace provides a more meaningful metric than land given that commercial activity is able to be 'stacked' in multi storey buildings. The nature of floorspace differs between the three broad economic categories and is discussed further below.

Figure 4-15 below presents total business floorspace demand by broad sector for the FPP area over the next 30 years. Over 3.8 million sqm of gross floor area (GFA) of built space is required to cater for anticipated economic growth within the FPP area over the long term. Of that total, approximately 2.6 million sqm is required for industrial sectors, 1.1 million sqm for commercial activities and 240,000sqm for retail.

Figure 4-15: FPP Total Business Floorspace (GFA) Demand by Broad Sector, 2022-2052 ('000 sqm)

Broad Sector	Hamilton City	Waikato District	Waipa District	Total FPP Area
Commercial	734	194	141	1,068
Retail	159	41	40	240
Industrial	1,619	634	375	2,628
Total Demand (sqm GFA)	**2,512**	**869**	**556**	**3,936**

4.3.1 Hamilton City Future Business Floorspace Demand

Commercial Floorspace

Total floorspace required to house the growth in commercial employment in Hamilton is just over 705,000sqm of built GFA over the long term (Figure 4-16). Just over half (52% or 369,280sqm) of total growth is distributed across Hamilton ('Other' designation), 18% arises within Te Rapa and 16% in the CBD. A further 9% of total commercial demand arises in the Frankton area.

Figure 4-16: Hamilton Commercial Space Demand (GFA sqm), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Te Rapa	18,944	58,749	127,960
Chartwell	474	1,449	4,181
Frankton	6,107	21,225	62,800
CBD	11,906	41,182	119,807
Ruakura	4,263	13,057	34,558
Other	42,765	136,368	384,327
Total	**84,459**	**272,030**	**733,634**

Approximately 84,459sqm of GFA is required in the short term and 272,030 sqm of GFA over the next 10 years.

Retail Floorspace

An estimated 153,760sqm of built GFA is required to accommodate the growth in retail employment in Hamilton over the long term. Again, the majority is spread across Hamilton with large shares of total floorspace demand arising from Te Rapa and the CBD.

Figure 4-17: Hamilton Retail Space Demand (GFA sqm), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Te Rapa	5,955	16,722	26,548
Chartwell	1,329	4,276	11,771
Frankton	1,980	5,952	16,137
CBD	2,381	9,145	18,893
Ruakura	143	497	1,521
Other	9,922	33,562	84,257
Total	**21,709**	**70,154**	**159,127**

In the short term there is demand for around 21,709sqm of GFA and over 70,154sqm of GFA over the medium term (Figure 4-17).

Industrial Floorspace

Industrial demand growth translates into over 1.56 million sqm of GFA over the long term (Figure 4-18). More than half (52%) is expected to arise from the Te Rapa area, 20% is required in Frankton and 19% across the rest of Hamilton. In the short term around 208,628sqm of GFA is required, increasing to around 679,629sqm of GFA in total over the next 10 years.

On average across the next 3 years 69,500sqm are required each year. That decreases to 68,000sqm over the 10 year period and then drops further to approximately 54,000sqm of GFA annually over the entire 30 year period.

Figure 4-18: Hamilton Industrial Space Demand (GFA sqm), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Te Rapa	130,705	417,660	835,648
Chartwell	661	1,970	5,907
Frankton	28,614	105,206	316,973
CBD	9,520	33,223	99,959
Ruakura	5,563	17,507	54,566
Other	33,565	104,061	306,068
Total	**208,628**	**679,629**	**1,619,120**

Wet Industries - Floorspace Demand

Wet industrial GFA makes up around 5% of total industrial built GFA in Hamilton. In total over the long term there is projected demand for over 57,000sqm of wet industrial GFA (Figure 4-19). This is mainly concentrated within the industrial catchment areas Te Rapa and Frankton with 37,500sqm and 16,000sqm of GFA respectively. Almost 11,000sqm of GFA demand is projected in the short term, increasing to 36,000sqm in the medium term.

Figure 4-19: Hamilton Wet Industrial Space Demand (GFA sqm), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Te Rapa	7,824	26,614	37,517
Chartwell	2	0	28
Frankton	2,824	7,931	16,067
CBD	82	188	352
Ruakura	350	1,081	2,687
Other	71	237	1,166
Total	**11,153**	**36,051**	**57,817**

4.3.2 Waikato District Future Business Land Demand

Commercial Floorspace

Demand for commercial space in Waikato District is estimated at around 193,600sqm of GFA over the long term (Figure 4-20). Like commercial land demand, strong demand is projected in Tuakau as well as Raglan.

Figure 4-20: Waikato Commercial Space Demand (GFA sqm), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Pokeno	1,772	5,458	15,734
Tuakau	3,154	11,646	28,832
Te Kauwhata	2,332	8,930	17,874
Huntly	1,889	7,457	17,542
Ngaruawahia	1,906	6,287	17,303
Raglan	3,315	8,430	22,168
Rest of Waikato	7,132	25,580	74,108
Total	**21,501**	**73,788**	**193,562**

Over the short term the Waikato District will require around 21,500sqm of GFA while over the medium term this grows to around 74,000sqm GFA.

Retail Floorspace

Retail demand translates into approximately 41,000sqm of GFA required to support the growth in retail employment in the district over the long term (Figure 4-21). The largest share of floorspace demand arises from the Rest of Waikato reporting area and Tuakau, 12,300sqm and 10,800sqm of GFA respectively. Strong demand growth is also anticipated for Raglan and Ngaruawahia.

Figure 4-21: Waikato Retail Space Demand (GFA sqm), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Pokeno	554	1,084	2,240
Tuakau	3,368	7,799	10,744
Te Kauwhata	171	1,447	2,850
Huntly	247	1,229	2,236
Ngaruawahia	220	766	4,764
Raglan	1,184	2,500	5,836
Rest of Waikato	995	3,769	12,305
Total	**6,740**	**18,594**	**40,974**

In the short term, Waikato District requires approximately 7,000sqm Retail GFA, or around 2,250sqm annually. This increases to 18,600sqm GFA over 10 years or 1,900sqm per annum.

Industrial Floorspace

Over the next 30 years industrial space in Waikato is projected to increase by approximately 634,000sqm of GFA (Figure 4-22). The majority of the growth is spread across the district (294,000sqm of GFA in Rest of Waikato designation) with Pokeno anticipated to experience strong growth for industrial space with demand for around 87,000sqm of GFA. Strong demand is also projected for Raglan with 65,000sqm of GFA over the long term.

Figure 4-22: Waikato Industrial Space Demand (GFA sqm), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Pokeno	10,403	29,686	87,414
Tuakau	13,291	32,491	58,790
Te Kauwhata	8,284	32,233	58,071
Huntly	4,689	15,124	35,396
Ngaruawahia	3,158	11,184	35,522
Raglan	10,880	26,361	64,908
Rest of Waikato	39,604	113,416	293,907
Total	**90,309**	**260,495**	**634,008**

Over the short term approximately 90,000sqm of GFA is required, increasing to over 260,000sqm of GFA over the medium term.

Wet Industries – Floorspace Demand

Wet industrial land demand translates to over 63,000sqm of GFA over the next 30 years (Figure 4-23). Demand is concentrated across the rest of Waikato and Pokeno areas, 33,500sqm and 24,900sqm GFA respectively. Tuakau experiences some growth with nearly 3,000sqm GFA. Wet industrial GFA demand is negative over the long term.

Figure 4-23: Waikato Wet Industrial Space Demand (GFA sqm), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Pokeno	2,796	9,221	24,896
Tuakau	830	1,798	3,030
Te Kauwhata	15	44	75
Huntly	156	241	-199
Ngaruawahia	56	188	567
Raglan	279	616	1,565
Rest of Waikato	7,047	18,583	33,564
Total	**11,178**	**30,691**	**63,498**

Estimated demand for wet industrial GFA is 11,000sqm in the short term, increasing to over 30,000sqm in the long term.

4.3.3 Waipā District Future Business Land Demand

Commercial Floorspace

Waipā District's commercial land growth translates to just over 141,000sqm of GFA over the long term. Demand is focused on main centres Cambridge-Karapiro and Te Awamutu-Kihikihi. Overall growth increases at the district level from just over 15,000sqm of GFA over the short term, to over 47,000sqm of GFA in the medium term.

Figure 4-24: Waipā Commercial Space Demand (GFA sqm), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Cambridge-Karapiro	9,144	28,061	72,415
Te Awamutu-Kihikihi	3,555	11,476	42,122
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	1,755	5,984	21,037
Rest of Waipa	610	2,015	5,474
Total	**15,064**	**47,536**	**141,048**

Retail Floorspace

Over the long term, an additional 40,000sqm of GFA is required in Waipā. Again, demand is concentrated across the two main centres: Cambridge-Karapiro (19,500sqm GFA) and Te Awamutu-Kihikihi (16,600sqm GFA). Short term retail demand is around 4,600sqm of GFA. This increases to approximately 15,700sqm over the medium term.

Figure 4-25: Waipā Retail Space Demand (GFA sqm), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Cambridge-Karapiro	2,583	8,942	19,546
Te Awamutu-Kihikihi	1,597	5,279	16,653
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	449	1,268	3,167
Rest of Waipa	55	215	498
Total	**4,683**	**15,703**	**39,864**

Industrial Floorspace

Finally, industrial demand in Waipā translates to approximately 375,000 sqm GFA over the long term. As with commercial and retail GFA, the majority of this is concentrated around Cambridge-Karapiro (167,000sqm or 45% of total demand) and Te Awamutu-Kihikihi (124,000 or 33% of total). Strong growth is projected for the Rukuhia-Ngahinapouri-Ohaupo-Pirongia reporting area in the longer term, with growth of over 65,000sqm GFA (17% of total demand). Overall, within Waipa, there is demand for an additional 40,000sqm in the short term, increasing to around 117,000sqm in the medium term.

Figure 4-26: Waipā Industrial Space Demand (GFA sqm), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Cambridge-Karapiro	14,863	49,970	167,264
Te Awamutu-Kihikihi	15,984	39,354	123,908
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	7,159	21,387	65,561
Rest of Waipa	1,724	5,933	18,136
Total	**39,730**	**116,644**	**374,869**

Wet Industries - Floorspace Demand

Overall, wet industries GFA demand represents only 8% of total industrial GFA demand for Waipā in the long term. Over 31,000sqm of GFA is anticipated in the district over the next 30 years (Figure 4-27). Unsurprisingly, the bulk of total demand is required in Cambridge-Karapiro and Te Awamutu-Kihikihi with 21,300sqm and 7,600sqm of GFA respectively.

Figure 4-27: Waipā Wet Industrial Space Demand (GFA sqm), Short Medium and Long Term

Name	Short Term	Medium Term	Long Term
Cambridge-Karapiro	99	4,190	21,351
Te Awamutu-Kihikihi	1,624	2,659	7,674
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	179	673	2,102
Rest of Waipa	4	11	30
Total	**1,907**	**7,533**	**31,157**

Short term demand in the district is nearly 2,000sqm GFA, increasing to 7,500sqm GFA in total over the next 10 years.

5 Business Land and Floorspace Capacity

In general, capacity estimates for each of the districts in the Future Proof Partnership are based on the final capacity estimates generated as part of the HBA carried out in 2020 to meet the requirements of the NPS-UD. From the final agreed parcel sets, parcels with CCC's issued for new buildings are removed from the vacant capacity set. Larger greenfield parcels that have been split into smaller lots and either fully or partially developed have been identified and consumed capacity removed from the totals. Any additional land that has been earmarked for commercial use into the future has been identified and coded according to the current estimate of time it will become available. Finally, land rezoned for other purposes has been removed from the Business Land set.

In this section, we will review capacity from the 2020/21 HBA, carried out under the NPS-UD for each Council, then identify changes in capacity due to uptake and any rezoning that has occurred. Final estimates of capacity will be presented for each TA divided into logical aggregations that will be used in the final assessments of sufficiency.

It is important to note that the RMA 1991 is an enabling Act, which means that as a guiding principle of land use planning, landowners should be enabled to develop their land for the uses they desire (assuming the adverse effects are no more than minor). This translates to land use provisions in district plans being broad – most parcels identified as vacant can meet a relatively wide range of demands. Therefore, capacity at a parcel level, 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. In order to provide some estimates of actual capacity, we divide identified capacity by the number of activities that are enabled and split land area accordingly on a pro-rata basis. We make no call as to which activity has precedence[18].

5.1 Vacant Land Identified

As with the 2020/21 HBA, 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. A base level of development of 50sqm GFA or 2.5% site cover have been used as the lower limits of occupancy, in other words parcels either empty or with a building up to 50sqm are considered vacant. In addition, parcels where the built form exceeds 50sqm, but covers less than 2.5% of the total property are also considered vacant. This is classification was also carried out for the 2020 assessment designed to capture large parcels – often on the urban edge, that have been earmarked for

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

future non-residential uses, but may still have a farmhouse or some similar structure on them. They are effectively vacant and are now able to be recorded as such.

In summary, a land parcel is considered **vacant capacity** if the following conditions exist:

- It is bare land,
- It is plan-enabled, as defined under the NPS-UD 2020,
- For industrial parcels that it lies completely within the industrial zone
- For industrial land, that the parcels does not have any consent lodged, that indicates any development activity on the parcel, e.g. Subdivision, land use, building consent,
- It is not occupied by any built structure, or it is not used for any ancillary activity that supports the development activity of the surrounding parcel e.g. parking lot or storage space

For larger parcels that are yet to undergo any major sub-division, we have reduced their raw area by 33% as a proxy for the development process that would translate large parcels into smaller usable parcels for development. This means that parcels over 1ha are reduced in size.

Vacant land on each parcel was categorised into three broad sector types (Commercial, Retail, Industrial), based on the development types allowed within each zone.[19] Figure 5-1 contains the vacant land capacities output from M.E's model for entire period 2022 to 2052.[20] Feedback from each of the Councils (ground truthing) was incorporated where necessary to increase, reduce or remove specific areas from the capacity assessment. Data contained within Hamilton City Council plans indicated where roads, reserves, and other infrastructure was required to be removed.

M.E also removed the ability for the Commercial – Other Built floorspace type to locate on industrial zones within the Waikato 2070 areas. This was to better reflect the expected *industrial* nature of businesses within these areas, rather than commercial.

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

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

Figure 5-1: FPP Long term Vacant Business Land by broad sector, 2022-2052 (ha)

Broad Sector	Hamilton City	Waikato District	Waipa District	Total FPP Area
Short-Medium term				
Commercial	28	25	39	92
Retail	35	21	3	59
Industrial	214	197	178	589
Total Vacant Bus. Land	**278**	**243**	**219**	**741**
Long Term				
Commercial	28	26	39	93
Retail	35	21	3	60
Industrial	343	1,250	178	1,771
Total Vacant Bus. Land	**406**	**1,297**	**219**	**1,923**

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

Vacant industrial land for all partnership councils represents the largest proportion of total vacant business land. Within Hamilton City, the 214ha in the medium term and 343 hectares of vacant industrial land represents 84% of the total 406 hectares of total vacant business land in the long term within the city. Waipā District's long term industrial capacity represents 81% of the total vacant business land capacity, with 178 hectares of the total 219 hectares identified. Waikato District's long term industrial land capacity of 1,250 hectares is 96% of the total 1,297 hectares identified in total. This is as a result of the fact that each of the councils have zoned or earmarked large swathes of land enabled for industrial development, reflecting the high proportion of primary, manufacturing, and related industries that exist in their economies and their land extensive nature. Waikato District in particular has enabled significant areas of land south of Auckland in their 2070 long term planning documents as they look to provide for some of the over-spill of businesses from the Auckland market as Auckland reaches capacity. It may be the case as time progresses and the actual shape of demand emerges, that a portion of this land will be rezoned. At the moment this large volume provides a high degree of flexibility and will allow Waikato District to manage future demands well.

For all Partners, vacant retail land represents the smallest proportion of total vacant land capacity. Hamilton City contains the absolute largest amount of vacant retail land capacity, with 35 ha in the medium and long term (9% of the 406ha total). Waikato District has identified 21 hectares representing 2% of the total 1,297 hectares identified. Waipā District contains the smallest total amount of vacant retail land, with 3 hectares (or 1%) of the 219 hectares of business land total.

Vacant commercial land makes up 5% of total FPP vacant capacity identified, with 28 hectares (7% of 406ha total) in Hamilton City, 39 hectares (18% of 219 ha total) in Waipā District, and 25 hectares in Waikato District in the medium term, increasing to 26ha in the long term.

5.2 Vacant Business Capacity

After identifying vacant land capacity by type, plan enabled gross floor area (GFA) was determined on each parcel based on the attached zoning provisions. Provisions 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 Councils' District Plans were used to determine the floorspace activity types allowed, which have then been aggregated to the broad business categories used above[21]. 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, and restricted discretionary activities have been incorporated under the assumption that these are essentially allowed under the various District Plans. Both Waikato and Waipā Districts have had similar frameworks applied, based on rules specific to zoning within their District Plans.

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	-

[21] Detailed tables of capacity and demand by space types are appended to this report in Appendix 5.

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 over the short-to-long term, 2022 to 2052. 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.

M.E have applied a reduced site coverage of 38.3% to industrial zoned land across the partnership councils.[22] This is to better reflect the reality that industrial businesses do not tend to use the total plan-enabled floor area on sites. Oftentimes more emphasis is placed on yard- and outdoor-type activities, than on activities that require floorspace. As such, we have reduced the site coverage from the plan-enabled capacity to a more realistic measure.

Figure 5-4: FPP Long term Vacant Business Capacity (GFA) by broad sector, 2022-2052 ('000 sqm)

Broad Sector	Hamilton City	Waikato District	Waipa District	Total FPP Area
Short-Medium term				
Commercial	1,229	360	1,389	2,979
Retail	434	130	76	641
Industrial	1,592	740	833	3,165
Total Capacity (GFA)	**3,256**	**1,230**	**2,298**	**6,784**
Long Term				
Commercial	1,229	160	1,389	2,779
Retail	434	134	76	645
Industrial	2,609	4,788	833	8,230
Total Capacity (GFA)	**4,273**	**5,083**	**2,298**	**11,654**

In Hamilton City, plan-enabled commercial GFA represents just over 1.2 million sqm (or 28%) of the total 4.3 million sqm GFA enabled in the city, and 27% of the total 3.8 million sqm of commercial GFA enabled in the FPP sub-region. In Waipā, plan-enabled commercial floorspace represents 1.3 million sqm (60%) of the total of 2.3 million sqm in the district. Within Waikato District, identified commercial floorspace is far less - making up only 160,000sqm, or 3% of the total 5.1 million square metres of GFA enabled in the long term (most of which is the theoretical floorspace enabled on industrial land).

The relatively large amount of capacity estimated for commercial floorspace is a function of the intensive development pattern that commercial land allows. Commercial land uses allow for commercial occupation of levels above ground floor – limited by height restrictions (as outlined in District Plans). Zones that allow for commercial land uses also have higher coverage allowances, or floor area ratios . Some forms of commercial land use also occupy space in a wide range of zones, including mixed usage zones. These factors combined mean that plan enabled commercial built form or GFA capacity represents a much larger

[22] The 38.3% site coverage was derived from the average site coverage in the Te Rapa North industrial zones, and reflects our assumption for industrial space availability going forward. District Plan rules indicate site coverages of between 58 and 80% for industrial type zones.

proportion of total enabled built form capacity than commercial vacant land capacity (from section 5.1, above) would imply.

Retail floorspace capacity across the TAs represents the smallest proportion of total floorspace. Retail floorspace capacity within Hamilton City is identified as 434,000 sqm (or 9% of Hamilton's total GFA in the long term). Retail space accounts for 76,000 sqm in Waipa (or 3% of Waipa's total GFA), and 134,000 sqm in Waikato (or 3% of the total 5.1 million sqm). 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 will out compete other land uses on the ground floor.

Vacant 'realistic' industrial built space within Hamilton City is identified as 1.6msqm in the short to medium term rising to 2.6 million sqm in the long term (or 61%) of the 4.3 million total sqm enabled within the TA. Realistic industrial capacity in the Waikato District of only 740,000 in the short to medium term rises to 4.8 million sqm in the long term (a massive 94% of the 5.1 million total sqm enabled). Realistic industrial capacity in the Waipā District equates to 833,000 sqm, or 36% of the total 2.3 million sqm of built space in the district.

A lot of Hamilton City's industrial floorspace capacity has been taken up since the last assessment in 2021, especially in areas such as Te Rapa. As with vacant industrial land, much of Waikato's long term industrial floorspace capacity exists in Te Rapa and Ruakura as greenfield sites in those locations are brought to market after the medium term.

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 where applicable.

In addition, there are different interpretations of 'vacant land'. Hamilton City have settled on a definition of vacant as land that has not had any resource consent issued whereas in other areas, the issuing of a CCC has been used to determine whether a piece of land is occupied. Within the context of the broad timelines that apply for the HBA (3 years is the smallest time period then 7 then 20), these differences are not material.

As with the 2021 HBA, in some cases vacant capacity has been identified in this assessment where none was identified previously. This is especially prevalent where new greenfields developments have been identified for the future. We have incorporated information where it has been supplied – specifically for Waikato District and Hamilton City. This means that land that may not be vacant at this point in time (e.g.

rural land with farmhouse on it) has been identified as capacity at some point in the future (in particular with the Waikato 2070 long term capacity).

We have made the assumption that most of the land earmarked for investigation under the Waikato 2070 strategy could become capacity into the future. There is no guarantee that all the areas under investigation will be re-zoned or result in capacity.

Applying a blanket reduction in site area of 30% for parcels greater than 1 hectare in Waikato and Waipā Districts does remove some nuance from what may happen on the ground in future developments, but overall we have assumed that this is a reasonable measure in light of development patterns we have seen elsewhere.

Using a realistic industrial space measure also changes the level of capacity identified across the sub-region. It necessarily causes industrial floorspace measurements to be more conservative than what is 'plan-enabled', but we believe it does more accurately reflect what will happen on the ground. The use of it may cause some sufficiency issues at the local level, but the fact is that if there is upward pressure for more capacity, businesses are able to develop to a higher floorspace than what has been identified in this report.

Finally, for some of the Tainui Group Holding land at Ruakura, we have assumed that 50% becomes available to the market for development. This is to reflect its lease hold not freehold status.

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-UD, M.E has only modelled business capacity in primarily urban environments and urban-type zones. Although the capacity modelling 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 modelling 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 Waipā 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.

Having said that, the recently introduced National Policy Statement on Highly Productive soils prohibits new out of zone, business activity on land classified as LUC 1-3. This means that councils may find a number of industrial activities that might have previously applied for and be granted non complying consents to locate in rural locations, on LUC 1-3 classified land, now needing to accommodate that activity within established industrial zones.

We recommend council monitor the growth of non rural industrial activities in rural locations by type and location. In addition, Councils will need to monitor the uptake of zoned industrial land (in particular) by rural industrial activities.

6 Development Suitability

In the NPS-UD, development capacity to accommodate business activities is laid out in sections 3.28, 3.29 and 3.30. In 3.29, the NPS-UD states that development capacity provided by each Council should be plan enabled, infrastructure ready and suitable for each sector. In 3.29 (2) the NPS states that it is up to the local authority to define what it means for development capacity to be suitable, but that suitability must be (at a minimum) suitable in terms of location and site size.

Unlike assessing capacity to meet housing demand, to assess business capacity does not specifically require an assessment of 'Development Feasibility'. It is sufficient to provide suitable land in terms of location and scale. The cost and revenue based approach to assessing development feasibility 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 meant development feasibility could 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. This was a key driver of the change between the NPS-UDC and the NPS-UD. It was recognised that assessing the amount of business land that provided a developer margin was impossible (and not generally relevant to explain development patterns or development futures), therefore local authorities should not be judged on whether they had achieved this – given the diversity of development options available to businesses, few of which occurred with the aim of achieving a 'developer margin'.

However, 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 in terms of suitability to develop (e.g. location relative to workforce and markets, parcel characteristics and infrastructure). 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.

This directly meets the NPS criteria for development capacity (3.29(2)), which states that;

> *A local authority may define what it means for development capacity to be "suitable" in any way it chooses, but suitability must, at a minimum, include suitability in terms of location and site size"*

Each broad area is then scored against the criteria and the ratings added 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, 2023

		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	2020 Spatial Frame	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	10	10	12	15	5	10	2	2	5	4	5	80	89
Hamilton	Frankton	4	9	10	10	5	9	2	3	3	4	5	64	71
Hamilton	Ruakura	10	9	1	10	5	9	1	5	4	4	5	63	70
Hamilton	Chartwell	6	10	10	10	5	10	1	4	3	4	5	68	76
Hamilton	CBD	6	9	15	15	5	9	5	1	5	4	5	79	88
Hamilton	Other	6	9	6	10	5	9	2	3	3	4	5	62	69
Waikato	Huntly	9	4	4	15	3	4	2	4	5	2	3	55	61
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	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	Rukuhia/Ngahinapouri/ Ohaupo/Pirongia	6	2	1	15	3	2	2	4	3	2	3	43	48
Waipa	Cambridge/Karapiro	8	6	11	10	4	6	2	3	3	2	4	59	66
Waipa	Te Awamutu/Kihikihi	5	5	11	10	4	5	1	3	3	2	4	53	59

Figure 6-2: Industrial Criteria, Weighting and FPP Area Scores, 2023

		1 to 20	1 to 20	1 to 15	1 to 15	1 to 10	1 to 20	1 to 5	1 to 10	1 to 5	1 to 5	1 to 10	TOTAL Score	
		20	10	15	15	10	20	5	10	5	5	10	125	
TA	2020 Spatial Frame	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	Ability to Freehold Land	TOTAL Score (out of 115)	TOTAL (out of 100)
Hamilton	Te Rapa	19	9	12	14	10	20	2	9	4	5	10	114	92
Hamilton	Frankton	8	6	15	13	9	20	3	5	4	5	10	98	78
Hamilton	Ruakura	19	10	11	2	9	20	5	7	4	5	0	92	73
Hamilton	Chartwell	12	5	15	4	10	5	4	5	4	5	10	79	63
Hamilton	CBD	12	2	15	10	9	5	1	8	4	5	5	76	61
Hamilton	Other	13	6	13	7	10	8	3	6	4	5	10	86	69
Waikato	Huntly	18	8	8	9	4	20	4	9	2	3	10	95	76
Waikato	Ngaruawahia	17	9	8	8	1	19	5	6	3	3	10	89	71
Waikato	Pokeno	18	8	10	4	3	18	5	7	2	1	10	86	69
Waikato	Tuakau	12	8	10	5	4	15	4	5	3	2	10	78	62
Waikato	Raglan	5	3	6	3	3	10	4	2	1	2	10	49	39
Waikato	Te Kauwhata	6	4	8	4	2	15	4	2	1	2	10	58	46
Waipa	Rukuhia/Ngahinapouri/ Ohaupo/Pirongia	12	6	9	8	2	15	4	6	2	3	10	77	62
Waipa	Cambridge/Karapiro	15	6	14	10	6	15	3	6	2	4	10	91	72
Waipa	Te Awamutu/Kihikihi	10	6	14	10	5	15	3	5	2	4	10	84	67

Figure 6-3: Commercial Criteria, Weighting and FPP Area Scores, 2023

		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	2020 Spatial Frame	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	10	7	5	10	15	10	2	4	7	8	5	83
Hamilton	Frankton	4	9	3	9	7	9	3	4	6	10	2	66
Hamilton	Ruakura	10	8	4	5	15	9	5	4	3	7	5	75
Hamilton	Chartwell	6	8	3	5	7	10	4	4	3	10	2	62
Hamilton	CBD	8	10	4	15	13	9	1	4	10	10	5	89
Hamilton	Other	6	8	3	6	7	9	3	4	4	9	3	62
Waikato	Huntly	9	3	5	5	10	4	4	2	3	5	1	51
Waikato	Ngaruawahia/Horotiu	7	2	2	3	10	3	5	3	2	6	1	44
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	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	Rukuhia/Ngahinapouri/ Ohaupo/Pirongia	6	1	3	3	12	2	4	2	2	5	2	42
Waipa	Cambridge/Karapiro	8	5	3	9	10	6	3	2	5	9	4	64
Waipa	Te Awamutu/Kihikihi	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. Under Section 3.3 of the NPS-UD it states that local authorities must provide *"at lease sufficient development capacity in its region or district to meet the expected demand for business land"*. It goes on to define sufficiency as being capacity that must be;

- Plan enabled,
- Infrastructure ready,
- Suitable to meet the demands of different business sectors, and,
- Meets the expected demand plus the appropriate competitiveness margin

In practice, that means that the land required is zoned and serviced by infrastructure meeting demand for the next 10 years (short to medium term) and/or has been identified in the various plans and strategic documents covering demand for the next 30 years (the long term).

Sections 7.1, 7.2 and 7.3 below report sufficiency levels based on base demand projections. Section 7.4 incorporates a margin above the base demand. For this section demand estimates have been increased by 20% in the short and medium terms and by 15% in the long term to meet the requirements of Section 3.22 of the NPS-UD, which states;

> *"A competitiveness margin of development capacity, over and above raw expected demand that tier 1 and 2 local authorities are required to provide, that is required in order to support choice and competitiveness in housing and business land markets.*
>
> *The competitiveness margins for both housing and business land are;*
>
> - *For the short term, 20%,*
> - *for the medium term, 20%,*
> - *for the long term, 15%*

In most cases, local authorities have provided sufficient business land capacity to exceed the requirements at the territorial authority-wide level over the 10-year period. The one exception being Commercial Land within Hamilton that is insufficient in the medium term[23]. Most have sufficient supply for the full 30-year period, available today or planned for the future. There are some localised insufficiencies and other areas

[23] The removal of commercial activity enablement on the Ruakura land and at Te Rapa has resulted in a significant drop in available capacity in Hamilton.

where margins are close, but overall there is enough supply. In a few cases, business land demand by type, mainly commercial, exceeds capacity at the territorial authority-wide level. Because commercial and retail land are very similar, care is needed when interpreting the results separately. Furthermore, both commercial and retail land can be developed more intensively which translates into additional floorspace.

The data presented in the sections that follow meet the requirements of the NPS-UD in that sufficiency is aggregated into Retail, Commercial and Industrial activities. Appended to this report (Appendix 5) are tables that disaggregate the information across 15 space types to provide readers with a more nuanced view of capacity and Councils ability to cater for business capacity requirements.

7.1 Hamilton City 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). Retail activities do not operate effectively above ground floor level, therefore they will generally outcompete commercial activities for ground floor space. Because of this, land for retail activities is usually the more accurate measure of capacity – rather than GFA.

It is also the case that if either retail or commercial demand exceeds the amount of land allocated, there is the potential for the 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) from retail and commercial activities that cannot find sufficient capacity within zoned areas. The reality is that commercial activity stacks well, so as long as the height limits provide sufficient viable GFA, commercial capacity is able to be provided. This is either above retail or on small footprints within established centres.

Consumption of residential and industrial space for retail and commercial activities may reflect 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. The private benefits of paying lower amounts for land are captured by the retail activities that choose to do this, however, the costs in terms of reductions in amenity in established centres and an overall increase in vehicular traffic are socialised (paid for by society as a whole).

We highly recommend Council monitor this situation – should it arise.

Infrastructure timing for parcels has been provided by HCC and therefore capacity has been coded accordingly for the short, medium and long term.

Figure 7-1 shows that Hamilton has around 28ha of land zoned and available for commercial development (commercial type development as defined above) over the long term. This is a reduction from 565ha identified in the 2020/21 HBA. Figure 7-2, shows that almost 1.2m sqm of GFA could potentially be

constructed across the city. This is the result of redevelopment potential – taking existing properties up to average densities in centres..

If future demand needed to be accommodated on new land it would require some 117ha of land in the long term. However only 28ha is available hence the measure of insufficiency. Commercial demand in sqm GFA terms is 733,630sqm. Therefore, there remains a **surplus** in GFA terms (Figure 7-2). However, demand is lumpy and supply is concentrated into a few distinct areas meaning local shortfalls may occur.

Commercial activities are relatively foot loose, in that they are less tied to a single location, this means that capacity provided in one area is likely to be suitable to meet needs arising elsewhere.

Figure 7-1: Hamilton City Commercial Land Sufficiency Summary (ha)

Name	Short Term	Medium Term	Long Term	Short Term Vacant Land (ha)	Medium Term Vacant Land (ha)	Long Term Vacant Land (ha)	Short Term	Medium Term	Long Term
Te Rapa	2.8	8.6	18.9	9.5	9.5	9.5			Insufficient
Chartwell	0.1	0.3	0.7	0.2	0.2	0.2		Insufficient	Insufficient
Frankton	0.9	3.1	9.2	1.6	1.6	1.6		Insufficient	Insufficient
CBD	1.7	6.0	17.3	5.7	5.7	5.7		Insufficient	Insufficient
Ruakura	0.7	2.1	5.4	0.0	0.0	0.0	Insufficient	Insufficient	Insufficient
Other	7.3	23.3	65.8	11.1	11.1	11.1		Insufficient	Insufficient
Total	**14**	**43**	**117**	**28.0**	**28.0**	**28.0**		Insufficient	Insufficient

In spite of land capacity being insufficient to meet demand growth from commercial activities in the medium term (should it need to locate on new land), GFA capacity is sufficient in the short, medium and long term. This is an area that Hamilton City will need to monitor. If development progresses along average density lines and developers are not achieving plan enabled densities (for valid commercial reasons), then Hamilton City will need to focus on providing more land, given the shortfalls identified in the medium term described in Figure 7-1 above.

Figure 7-2: Hamilton City Commercial Space Sufficiency Summary (GFA)

Name	Short Term	Medium Term	Long Term	Short Term GFA Capacity (sqm)	Medium Term GFA Capacity (sqm)	Long Term GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Te Rapa	18,944	58,749	127,960	320,039	320,039	320,039			
Chartwell	474	1,449	4,181	12,487	12,487	12,487			
Frankton	6,107	21,225	62,800	56,854	56,854	56,854			Insufficient
CBD	11,906	41,182	119,807	285,310	285,310	285,310			
Ruakura	4,263	13,057	34,558	526	526	526	Insufficient	Insufficient	Insufficient
Other	42,765	136,368	384,327	554,261	554,261	554,261			
Total	**84,459**	**272,030**	**733,634**	**1,229,477**	**1,229,477**	**1,229,477**			

Plan enabled Retail capacity sits at around 22ha of land in short term, increasing to 35ha over the medium-long term (down from 161ha identified in the 2020/21 HBA). Over 333,700 sqm of retail GFA can be developed in the short term and approximately 434,200 sqm over the long term. The demand models indicate that only around 27ha of retail land accommodating 159,130 sqm of GFA are likely to be required in the long run, indicating a surplus at the TA level for both land and GFA. 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 therefore not as foot loose as commercial activities.

Figure 7-3: Hamilton City Retail Land Sufficiency Summary (ha)

Name	Short Term	Medium Term	Long Term	Short Term Vacant Land (ha)	Medium Term Vacant Land (ha)	Long Term Vacant Land (ha)	Short Term	Medium Term	Long Term
Te Rapa	1.0	2.8	4.4	1.5	1.5	1.5		Insufficient	Insufficient
Chartwell	0.2	0.7	2.0	0.2	0.2	0.2	Insufficient	Insufficient	Insufficient
Frankton	0.3	1.0	2.7	0.6	0.6	0.6		Insufficient	Insufficient
CBD	0.4	1.5	3.1	4.3	4.3	4.3			
Ruakura	0.0	0.1	0.3	6.3	19.7	19.7			
Other	1.7	5.6	14.0	9.0	9.0	9.0			Insufficient
Total	**4**	**12**	**27**	**22**	**35**	**35**			

Figure 7-4: Hamilton City Retail Space Sufficiency Summary (GFA)

Name	Short Term	Medium Term	Long Term	Short Term GFA Capacity (sqm)	Medium Term GFA Capacity (sqm)	Long Term GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Te Rapa	5,955	16,722	26,548	21,293	21,293	21,293			Insufficient
Chartwell	1,329	4,276	11,771	2,911	2,911	2,911		Insufficient	Insufficient
Frankton	1,980	5,952	16,137	9,533	9,533	9,533			Insufficient
CBD	2,381	9,145	18,893	80,929	80,929	80,929			
Ruakura	143	497	1,521	47,606	148,066	148,066			
Other	9,922	33,562	84,257	171,446	171,446	171,446			
Total	**21,709**	**70,154**	**159,127**	**333,717**	**434,177**	**434,177**			

Hamilton's plan provisions significantly over provide for retail development in the short, medium and long term at the total level. We note that there are some areas where little capacity exists, yet demand is strong (Chartwell, and longer term across the north of the city). Alternatives are relatively proximate to these areas, however, we still recommend Council monitor retail supply in the north to ensure households are able to meet their retail needs in an efficient manner.

Hamilton's Industrial land supply is unevenly distributed. Some 94% of long term vacant industrial land occurs in two areas (Te Rapa 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. Figure 7-6 identifies some localised insufficiencies over the long term.

Demand is expected to require 383ha of land in the long term. Hamilton City has 126ha of industrial land currently identified and zoned in the short term. This increases to 214ha in the medium term and 343ha over the long term as more industrial land comes online. At the TA level, there insufficient industrial land in the long term. Therefore, it is important that the areas identified as being "industrial development areas" are protected from encroachment by other uses (notably large format retail).

A key characteristic of Hamilton's industrial land supply is that 50% is located at Ruakura and is owned by Tainui Group Holdings – an Iwi controlled organisation. This land is available for lease but not necessarily for sale. Tainui are keen to keep hold of the land to ensure continued returns for the Iwi. This may prove to be a constraint for some organisations that would prefer to own the land upon which their business is based. The degree to which this is an issue will play out over the next 10 years or so as industrial capacity in the rest of Hamilton City is consumed. If it represents a high proportion of industrial demand then Hamilton run the risk of running out of industrial capacity in the medium term.

We recommend that Hamilton City monitor carefully the uptake of land in Ruakura and the rest of the City to ensure that sufficient land is provided for those businesses that may seek to locate elsewhere rather than operate on leasehold land.

Figure 7-5: Hamilton City Industrial Land Sufficiency Summary (ha)

Name	Short Term	Medium Term	Long Term	Short Term Vacant Land (ha)	Medium Term Vacant Land (ha)	Long Term Vacant Land (ha)	Short Term	Medium Term	Long Term
Te Rapa	32.1	102.7	205.7	39.6	39.6	149.8		Insufficient	Insufficient
Chartwell	0.2	0.5	1.5	0.1	0.1	0.1	Insufficient	Insufficient	Insufficient
Frankton	7.1	26.0	78.2	4.6	4.6	4.6	Insufficient	Insufficient	Insufficient
CBD	2.3	8.1	24.3	0.8	0.8	0.8	Insufficient	Insufficient	Insufficient
Ruakura	1.4	4.3	13.4	66.1	154.9	173.0			
Other	8.2	25.4	74.7	14.4	14.4	14.4		Insufficient	Insufficient
Total	**51**	**167**	**398**	**126**	**214**	**343**			Insufficient

Figure 7-6: Hamilton City Industrial Space Sufficiency Summary (GFA)

Name	Short Term	Medium Term	Long Term	Short Term GFA Capacity (sqm)	Medium Term GFA Capacity (sqm)	Long Term GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Te Rapa	130,705	417,660	835,648	294,780	294,780	1,176,286		Insufficient	
Chartwell	661	1,970	5,907	700	700	700		Insufficient	Insufficient
Frankton	28,614	105,206	316,973	32,973	32,973	32,973		Insufficient	Insufficient
CBD	9,520	33,223	99,959	4,539	4,539	4,539	Insufficient	Insufficient	Insufficient
Ruakura	5,563	17,507	54,566	513,454	1,184,342	1,319,972			
Other	33,565	104,061	306,068	74,673	74,673	74,673		Insufficient	Insufficient
Total	**208,628**	**679,629**	**1,619,120**	**921,118**	**1,592,006**	**2,609,143**			

The industrial space available to be developed on the land is significantly more than demand requires. As discussed above, land is the key determinant of sufficiency for industrial activities. Plan provisions provide a high degree of flexibility ensuring that businesses that need to built out their sites to ensure their business operates, are able to do so.

Demand for built space grows from 208,600 sqm GFA to 1,619,120 sqm GFA over the long term. This compares with capacity of over 900,000 sqm GFA in the short term and over 2.6 million sqm GFA in the long term.

7.2 Waikato Area Results

In Waikato District there is approximately 36ha of operative plan-enabled Commercial business land that could potentially accommodate over 945,000 sqm of commercial GFA in the short term. This decreases to 26ha of land available over the total long term period able to accommodate over 160,000 sqm of commercial GFA (if developed in line with the plan provisions) should zoning aspirations play out as indicated by Council. Note that the figures represented in Figures 7.7 and 7.8 are the maximum development capacity for each of the sub areas in Waikato. In total 32.4ha of land are estimated to be required over 30 years while capacity is 25.9ha. Looking at commercial floorspace, long term demand is 193,560sqm GFA while capacity is estimated to be 160,500sqm GFA. Overall, there is a demand-supply imbalance at the territory authority level in the long term for both land and floorspace demand. Pōkeno and Te Kauwhata are the only areas where there is sufficient capacity to meet demand growth.

Figure 7-7: Waikato District Commercial Land Sufficiency Summary (ha)

Name	Short Term Demand	Medium Term Demand	Long Term Demand	ODP Total Vacant Land	PDP Total Vacant Land	2070 Total Vacant Land	Short Term Sufficiency	Medium Term Sufficiency	Long Term Sufficiency
Pokeno	0.3	0.9	2.8	6.1	6.6	6.6			
Tuakau	0.5	1.9	4.9	11.0	2.3	2.3			Insufficient
Te Kauwhata	0.4	1.5	3.0	4.9	4.3	5.9			
Huntly	0.3	1.3	3.1	1.3	0.8	0.7		Insufficient	Insufficient
Ngaruawahia	0.3	1.1	2.9	4.5	0.9	1.1		Insufficient	Insufficient
Raglan	0.5	1.4	3.7	1.5	1.6	1.0			Insufficient
Rest of Waikato	1.1	4.2	12.1	7.0	8.7	8.3			Insufficient
Total	**3.5**	**12.3**	**32.4**	**36.1**	**25.2**	**25.9**			Insufficient

Figure 7-8: Waikato District Commercial Space Sufficiency Summary (GFA sqm)

Name	Short Term Demand	Medium Term Demand	Long Term Demand	ODP Total GFA Capacity	PDP Total GFA Capacity	2070 Total GFA Capacity	Short Term Sufficiency	Medium Term Sufficiency	Long Term Sufficiency
Pokeno	1,772	5,458	15,734	97,623	114,777	60,329			
Tuakau	3,154	11,646	28,832	489,702	40,159	4,719			Insufficient
Te Kauwhata	2,332	8,930	17,874	71,732	76,057	79,136			
Huntly	1,889	7,457	17,542	17,866	13,180	8,123			Insufficient
Ngaruawahia	1,906	6,287	17,303	149,654	16,370	5,055			Insufficient
Raglan	3,315	8,430	22,168	21,481	27,648	3,135			Insufficient
Rest of Waikato	7,132	25,580	74,108	97,697	72,077	0			Insufficient
Total	**21,501**	**73,788**	**193,562**	**945,756**	**360,267**	**160,496**			Insufficient

The shift between the OPD and PDP and Waikato 2070 has a significant effect on commercial Floorspace capacity that Council will need to monitor. However, there is sufficient capacity in the medium term to cater for growth.

In terms of retail land, Waikato District has 15ha of vacant retail-enabled land under the operative district plan in the short term. This could potentially accommodate 197,300sqm of retail built floorspace. This is in excess of the long term demand of 6.8ha of retail land or almost 40,970sqm of GFA.

Capacity increases in the medium-long term to around 21ha. This facilitates additional retail GFA of 134,240 sqm GFA in the long term (Figure 7-10).

Waikato has sufficient retail land and space capacity in all reported urban locations.

Figure 7-9: Waikato District Retail Land Sufficiency Summary (ha)

Name	Short Term Demand	Medium Term Demand	Long Term Demand	ODP Total Vacant Land	PDP Total Vacant Land	2070 Total Vacant Land	Short Term Sufficiency	Medium Term Sufficiency	Long Term Sufficiency
Pokeno	0.1	0.2	0.4	3.9	4.9	4.9			
Tuakau	0.6	1.3	1.8	4.6	1.7	1.7			Insufficient
Te Kauwhata	0.0	0.2	0.5	3.3	3.3	4.4			
Huntly	0.0	0.2	0.4	0.9	0.6	0.5			
Ngaruawahia	0.0	0.1	0.8	0.1	0.7	0.8			
Raglan	0.2	0.4	1.0	1.0	1.2	0.7			Insufficient
Rest of Waikato	0.2	0.6	2.1	1.4	8.3	8.0			
Total	**1.1**	**3.1**	**6.8**	**15.2**	**20.7**	**21.2**			

Figure 7-10: Waikato District Retail Space Sufficiency Summary (GFA sqm)

Name	Short Term Demand	Medium Term Demand	Long Term Demand	ODP Total Vacant Land	PDP Total Vacant Land	2070 Total Vacant Land	Short Term Sufficiency	Medium Term Sufficiency	Long Term Sufficiency
Pokeno	554	1,084	2,240	36,182	39,352	39,330			
Tuakau	3,368	7,799	10,744	43,000	13,769	13,785			
Te Kauwhata	171	1,447	2,850	60,845	26,077	35,461			
Huntly	247	1,229	2,236	17,241	4,519	4,312			
Ngaruawahia	220	766	4,764	2,767	5,613	6,654			
Raglan	1,184	2,500	5,836	17,843	9,479	5,842			
Rest of Waikato	995	3,769	12,305	19,418	31,341	28,852			
Total	**6,740**	**18,594**	**40,974**	**197,297**	**130,149**	**134,236**			

Waikato District has identified 121ha of vacant industrial land in the short term under the Operative District Plan. This land could accommodate approximately 464,650 sqm of GFA under the realistic industrial space scenario of 38.3% site coverage. While demand for industrial land in the short term is low (21.9ha over three years), this rises to 153ha of total land demand over the long term. Vacant industrial capacity at the district level remains significantly greater than demand over the short, medium and long term. Of the three Councils within the FPP area, Waikato District is best placed to benefit from any Auckland industrial land demand spill over that may occur.[24] Over the long term, industrial land capacity reaches 1,250ha – largely due to areas identified under the Waikato 2070 strategy.

We recommend Council continue to monitor demand growth and uptake of industrial land in Waikato District. Monitoring of industrial land uptake will ensure appropriate volumes of land are provided for in appropriate locations. In the medium and long term, Council have identified significant additional tranches of land to potentially be zoned should additional demand be required. These are mostly located along the northern edge, adjacent to Auckland Region and adjacent to State Highway 1 at Ohinewai. However, we note that Huntly and Raglan face demand growth in the short, medium and long term that is not likely to be able to be meet locally. The same is true for Te Kauwhata in the medium to long term. Council have identified only 1.5ha available in Raglan and 0.2ha in Huntly to cater for growth of 15.9ha and 8.5ha in the long term, respectively. Demand growth in Te Kauwhata and Huntly is likely to be able to be met in adjacent centres with ample capacity. Raglan is geographically isolated from the other main centres within the district, and therefore we recommend Council identify additional industrial land to ensure that its economy is not constrained due to capacity constraints.

Figure 7-11: Waikato District Industrial Land Sufficiency Summary (ha)

Name	Short Term Demand	Medium Term Demand	Long Term Demand	ODP Total GFA Capacity	PDP Total GFA Capacity	2070 Total GFA Capacity	Short Term Sufficiency	Medium Term Sufficiency	Long Term Sufficiency
Pokeno	2.5	7.2	21.0	6.3	25.4	42.6			
Tuakau	3.2	7.9	14.3	44.2	60.3	55.3			
Te Kauwhata	2.0	7.8	14.0	3.8	2.8	1.9		Insufficient	Insufficient
Huntly	1.1	3.6	8.5	0.2	0.3	0.2	Insufficient	Insufficient	Insufficient
Ngaruawahia	0.8	2.7	8.5	30.1	54.8	209.3			
Raglan	2.7	6.4	15.9	1.3	1.5	1.5	Insufficient	Insufficient	Insufficient
Rest of Waikato	9.6	27.4	70.8	35.5	52.2	939.5			
Total	**21.9**	**63.1**	**153.0**	**121.3**	**197.3**	**1,250.2**			

[24] No analysis has been done on any spill over that may occur. Broadly, if land of a low enough price is located within short enough distance of requirements, then businesses will be willing to relocate. Up-zoning swathes of (lower-value) rural land in northern Waikato may be all the incentive that certain businesses need to relocate.

Figure 7-12: Waikato District Industrial Space Sufficiency Summary (GFA sqm)

Name	Short Term Demand	Medium Term Demand	Long Term Demand	ODP Total GFA Capacity	PDP Total GFA Capacity	2070 Total GFA Capacity	Short Term Sufficiency	Medium Term Sufficiency	Long Term Sufficiency
Pokeno	10,403	29,686	87,414	23,938	97,334	163,105			
Tuakau	13,291	32,491	58,790	169,204	231,082	211,981			
Te Kauwhata	8,284	32,233	58,071	14,719	10,688	7,122		Insufficient	Insufficient
Huntly	4,689	15,124	35,396	845	966	707	Insufficient	Insufficient	Insufficient
Ngaruawahia	3,158	11,184	35,522	115,114	194,165	801,464			
Raglan	10,880	26,361	64,908	4,919	5,622	5,622	Insufficient	Insufficient	Insufficient
Rest of Waikato	39,604	113,416	293,907	135,912	200,104	3,598,275			
Total	**90,309**	**260,495**	**634,008**	**464,651**	**739,960**	**4,788,277**			

7.3 Waipā Area Results

Waipā District has identified 39ha of commercial land capacity in their various planning documents (down from 172ha identified in the 2020/21 HBA). Over the long term there is insufficient capacity at the TA level to meet demand of almost 50ha. Capacity is concentrated in Rukuhia/ Ngahinapouri/ Ohaupo/ Pirongia areas, which includes the areas surrounding Hamilton Airport (Titanium Park) with 31ha or 82% of total long term capacity. A further 12% is in Cambridge/Karapiro and 6% in Te Awamutu/Kihikihi. In the medium and long term there are local insufficiencies for commercial land across all urban areas with the exception of Rukuhia/Ngahinapouri/Ohaupo/Pirongia areas.

Regardless of there being sufficiency at the District level, these economies operate separately meaning that Council needs to monitor carefully the manner in which the land provided is being utilised. As shown in the commercial space table (Figure 7-14), the amount of land provided if developed in line with the plan provisions is sufficient to cater for growth needs.

Figure 7-13: Waipā District Commercial Land Sufficiency Summary (ha)

Name	Short Term	Medium Term	Long Term	Total Vacant Land (sqm)	Short Term	Medium Term	Long Term
Cambridge-Karapiro	3.2	9.7	24.9	4.5		Insufficient	Insufficient
Te Awamutu-Kihikihi	1.4	4.3	15.8	2.4		Insufficient	Insufficient
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	0.5	1.9	6.9	31.5			
Rest of Waipa	0.2	0.7	2.0	0.3		Insufficient	Insufficient
Total	**5.3**	**16.6**	**49.6**	**38.6**			Insufficient

Figure 7-14: Waipā District Commercial Space Sufficiency Summary (sqm)

Name	Short Term	Medium Term	Long Term	Total GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Cambridge-Karapiro	9,144	28,061	72,415	365,714			
Te Awamutu-Kihikihi	3,555	11,476	42,122	127,871			
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	1,755	5,984	21,037	869,459			
Rest of Waipa	610	2,015	5,474	25,899			
Total	**15,064**	**47,536**	**141,048**	**1,388,943**			

In commercial space terms, the capacity provided exceeds demand for all urban areas within the Waipā District. In total almost 1.4 million sqm of commercial GFA is provided for through plan provisions, whereas demand over the long term is only 141,050sqm. Demand is highest in Cambridge in the long term,

72,420sqm compared with capacity of 366,740sqm of GFA while demand for commercial land in Te Awamutu in the long term is 42,120sqm GFA compared with estimated capacity of around 127,870sqm GFA.

Waipā has around 3.2ha of retail land upon which 76,530sqm GFA could be developed (down from 10.6ha identified in the 2020/21 HBA). At the district level, retail land demand is greater than capacity in the long term (5.6ha demanded compared to 3.2ha provided) (Figure 7-15). Council will need to monitor the district's demand-supply land balance in the long term given the projected imbalance.

Figure 7-15: Waipā District Retail Land Sufficiency Summary (ha)

Name	Short Term	Medium Term	Long Term	Total Vacant Land (sqm)	Short Term	Medium Term	Long Term
Cambridge-Karapiro	0.4	1.3	2.9	1.4			Insufficient
Te Awamutu-Kihikihi	0.2	0.6	2.1	1.4			Insufficient
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	0.1	0.2	0.5	0.4			Insufficient
Rest of Waipa	0.0	0.0	0.1	0.0	Insufficient	Insufficient	Insufficient
Total	**0.6**	**2.1**	**5.6**	**3.2**			Insufficient

From a floorspace perspective the situation is less of an issue with capacity provided in the major centres exceeding demand in the long term. Long term growth is expected to have consumed approximately 50% of available capacity by then. At a local level, there is only insufficient retail floorspace capacity across the rest of Waipā, that is outside of the major centres. However, this can easily be accommodated within the main centres.

Figure 7-16: Waipā District Retail Space Sufficiency Summary (sqm)

Name	Short Term	Medium Term	Long Term	Total GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Cambridge-Karapiro	2,583	8,942	19,546	33,287			
Te Awamutu-Kihikihi	1,597	5,279	16,653	33,439			
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	449	1,268	3,167	9,531			
Rest of Waipa	55	215	498	0	Insufficient	Insufficient	Insufficient
Total	**4,683**	**15,703**	**39,864**	**76,257**			

Waipā's District Plan enables 178ha of industrial land in the long term – this is less than identified in the 2020/21 HBA where some 231ha of land was identified as vacant and available for industrial purposes. Capacity is concentrated into the Rukuhia/Ngahinapouri/Ohaupo/Pirongia areas (43%) and Cambridge/Karapiro, (36%). Specifically, vacant industrial areas of land are concentrated in and around Titanium Park (Hamilton Airport) and Hautapu, both of which are identified as strategic industrial nodes by the partners. In total the amount of industrial land provided exceeds demand over the long term (178ha provided compared with 67ha demanded). We suggest that Council monitor industrial land uptake across the rest of Waipā, where the difference between land supply and demand is slim in the long term. In addition, as industrial land use pressure builds in Hamilton City in the medium to longer term, demand will partially be met in Waipa – in particular, around Hamilton Airport. Therefore, a Partnership wide monitoring programme is required to ensure that, in total needs are met.

Figure 7-17: Waipā District Industrial Land Sufficiency Summary (ha)

Name	Short Term	Medium Term	Long Term	Total Vacant Land (sqm)	Short Term	Medium Term	Long Term
Cambridge-Karapiro	2.5	8.6	29.4	64.2			
Te Awamutu-Kihikihi	2.8	7.0	21.8	33.8			
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	1.3	4.0	12.4	76.7			
Rest of Waipa	0.3	1.0	3.1	2.9			Insufficient
Total	**7.0**	**20.6**	**66.8**	**177.7**			

Figure 7-18: Waipā District Industrial Space Sufficiency Summary (sqm)

Name	Short Term	Medium Term	Long Term	Total GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Cambridge-Karapiro	14,863	49,970	167,264	259,634			
Te Awamutu-Kihikihi	15,984	39,354	123,908	127,848			
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	7,159	21,387	65,561	434,100			
Rest of Waipa	1,724	5,933	18,136	11,117			Insufficient
Total	**39,730**	**116,644**	**374,869**	**832,699**			

One potential insufficiency for industrial floorspace has been identified across the rest of Waipā over the long term (Figure 7-18). Floorspace demand is expected to exceed the estimated realistic industrial space in the long term by 7,020sqm (18,140sqm demanded compared to 11,120sqm provided). Because industrial activity is relatively mobile, the demand-supply imbalance across the rest of Waipā can be met within other main centres. For Te Awamutu/Kihikihi long term floorspace demand represents some 97% of capacity – the closest margin. We strongly advise council to monitor these two areas to ensure that industrial land (and floorspace) are reserved for industrial uses. Overall, Waipā has more than enough industrial floorspace capacity at the district-level, with long term total demand of 374,870sqm representing only 45% of the 832,700 sqm of realistic industrial space identified.

7.4 Incorporating a Margin Over and Above Demand

As part of NPS-UD Part 3 – Implementation, Councils are asked (in Section 3.26) to estimate what is feasible and reasonably expected to be realised. This is in recognition that portions of plan enabled and serviced capacity may not be realised as capacity. Ultimately, this means that Councils must allow more land than is actually demanded to allow for a shortfall that may not be realised. In addition, the NPS-UD requires that Councils allow for an appropriate competitiveness margin. This is set at 20% over and above projected demand in the short and medium term and 15% in the long term.

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

- At the TA level, all Councils provide sufficient capacity for demand including the competitiveness margin across all sectors in the medium term (10 year period) with the exception of provision of Commercial land in Hamilton City. However sufficient commercial floorspace is available.
- In the long term there are some insufficiencies at the TA level across the business sectors – mainly industrial and commercial land and floorspace in Hamilton, commercial space and land in Waikato District and retail and commercial land in Waipa.

- The Councils will need to monitor these situations carefully to determine if additional capacity needs to be zoned in the long term to cater for projected growth.
- Localised land demand plus margin for industrial land is the most likely demand type to significantly exceed capacity. This is especially true for much of Hamilton City, Huntly, Raglan, and Te Kauwhata in Waikato. For the most part, local insufficiencies can be met in adjacent areas where there is ample capacity. Councils will need to monitor the uptake of industrial land in particular over time as Auckland industrial land prices increase and the area comes under significant pressure to accommodate Auckland spillover – putting pressure on local demand.
- Overall, there is generally enough retail and industrial land and floorspace capacity within the FPP Councils to accommodate projected growth plus margin.

The appearance of insufficiency at the local level requires some investigation. In several places, the margins of insufficiency are low and could easily be met with minor re-zoning where required. In others, demand apportioned to specific reporting areas could easily be met in other parts of the TA or the wider sub-region.

For industrial land and floorspace demand, there area a number of catchment areas where capacity will be exceeded by local demand plus a margin. This is offset by a large amount of capacity (in the Hamilton case) at Ruakura. Much of the demand arising in Hamilton can be accommodated within two areas – Ruakura and Te Rapa (323ha capacity versus total Hamilton demand (+ margin) for 457ha of land). This is ideal, since co-locating industrial businesses in similar areas has a range of benefits, and stops the spread of industrial businesses across the city. This assumes the market response to Ruakura leasehold land is favourable.

While all of Huntly's excess industrial demand could be provided for in nearby Ngāruawāhia and Horotiu (within the Rest of Waikato), the rapid reduction in Huntly Industrial capacity means Council should monitor the remaining land closely and be open to zoning additional industrial land in Huntly should demand arise. This will ensure local workers have employment opportunities locally.

It is also true that demand growth in Te Kauwhata could be met nearby in Tuakau. Industrial activities are relatively trans-locational and given that the sub-region is reasonably well-connected network of nodes, businesses have a range of location options. In most cases areas where there are insufficiencies will have adjacent areas with ample capacity which are easy to access or make sense from a co-location point of view. The main exception to this is Raglan where it appears that industrial land is insufficient for demand requirements across all time-scales. The main issue here however is the topography, which does not allow for much re-zoning of land near the town. Overall though, ample capacity has been supplied in or adjacent to the places where it is required long term.

7.4.1 Land Sufficiency plus Margin Results

Figure 7-19: Hamilton Commercial Land Sufficiency plus Margin (ha)

Name	Short Term	Medium Term	Long Term	Short Term Vacant Land (ha)	Medium Term Vacant Land (ha)	Long Term Vacant Land (ha)	Short Term	Medium Term	Long Term
Te Rapa	3.3	10.3	21.8	9.5	9.5	9.5		Insufficient	Insufficient
Chartwell	0.1	0.3	0.8	0.2	0.2	0.2		Insufficient	Insufficient
Frankton	1.1	3.8	10.6	1.6	1.6	1.6		Insufficient	Insufficient
CBD	2.1	7.2	19.9	5.7	5.7	5.7		Insufficient	Insufficient
Ruakura	0.8	2.5	6.2	0.0	0.0	0.0	Insufficient	Insufficient	Insufficient
Other	8.8	28.0	75.7	11.1	11.1	11.1		Insufficient	Insufficient
Total	**16**	**52**	**135**	**28**	**28**	**28**		Insufficient	Insufficient

Figure 7-20: Hamilton Retail Land Sufficiency plus Margin (ha)

Name	Short Term	Medium Term	Long Term	Short Term Vacant Land (ha)	Medium Term Vacant Land (ha)	Long Term Vacant Land (ha)	Short Term	Medium Term	Long Term
Te Rapa	1.2	3.3	5.1	1.5	1.5	1.5		Insufficient	Insufficient
Chartwell	0.3	0.9	2.3	0.2	0.2	0.2	Insufficient	Insufficient	Insufficient
Frankton	0.4	1.2	3.1	0.6	0.6	0.6		Insufficient	Insufficient
CBD	0.5	1.8	3.6	4.3	4.3	4.3			
Ruakura	0.0	0.1	0.3	6.3	19.7	19.7			
Other	2.0	6.7	16.1	9.0	9.0	9.0			Insufficient
Total	**4**	**14**	**30**	**22**	**35**	**35**			

Figure 7-21: Hamilton Industrial Land Sufficiency plus Margin (ha)

Name	Short Term	Medium Term	Long Term	Short Term Vacant Land (ha)	Medium Term Vacant Land (ha)	Long Term Vacant Land (ha)	Short Term	Medium Term	Long Term
Te Rapa	38.5	123.3	236.5	39.6	39.6	149.8		Insufficient	Insufficient
Chartwell	0.2	0.6	1.7	0.1	0.1	0.1	Insufficient	Insufficient	Insufficient
Frankton	8.5	31.1	89.9	4.6	4.6	4.6	Insufficient	Insufficient	Insufficient
CBD	2.8	9.7	28.0	0.8	0.8	0.8	Insufficient	Insufficient	Insufficient
Ruakura	1.6	5.1	15.4	66.1	154.9	173.0			
Other	9.8	30.5	86.0	14.4	14.4	14.4		Insufficient	Insufficient
Total	**61**	**200**	**457**	**126**	**214**	**343**			Insufficient

Figure 7-22: Waikato District Commercial Land Sufficiency plus Margin (ha)

Name	Short Term Demand	Medium Term Demand	Long Term Demand	ODP Total Vacant Land	PDP Total Vacant Land	2070 Total Vacant Land	Short Term Sufficiency	Medium Term Sufficiency	Long Term Sufficiency
Pokeno	0.3	1.1	3.2	6.1	6.6	6.6			
Tuakau	0.6	2.2	5.6	11.0	2.3	2.3			Insufficient
Te Kauwhata	0.5	1.8	3.4	4.9	4.3	5.9			
Huntly	0.4	1.6	3.6	1.3	0.8	0.7		Insufficient	Insufficient
Ngaruawahia	0.4	1.3	3.4	4.5	0.9	1.1		Insufficient	Insufficient
Raglan	0.6	1.7	4.3	1.5	1.6	1.0		Insufficient	Insufficient
Rest of Waikato	1.4	5.0	13.9	7.0	8.7	8.3			Insufficient
Total	**4.2**	**14.7**	**37.3**	**36.1**	**25.2**	**25.9**			Insufficient

Figure 7-23: Waikato District Retail Land Sufficiency plus Margin (ha)

Name	Short Term Demand	Medium Term Demand	Long Term Demand	ODP Total Vacant Land	PDP Total Vacant Land	2070 Total Vacant Land	Short Term Sufficiency	Medium Term Sufficiency	Long Term Sufficiency
Pokeno	0.1	0.2	0.4	3.9	4.9	4.9			
Tuakau	0.7	1.6	2.1	4.6	1.7	1.7			Insufficient
Te Kauwhata	0.0	0.3	0.5	3.3	3.3	4.4			
Huntly	0.0	0.2	0.4	0.9	0.6	0.5			
Ngaruawahia	0.0	0.2	0.9	0.1	0.7	0.8			Insufficient
Raglan	0.2	0.5	1.1	1.0	1.2	0.7			Insufficient
Rest of Waikato	0.2	0.8	2.4	1.4	8.3	8.0			
Total	**1.3**	**3.7**	**7.9**	**15.2**	**20.7**	**21.2**			

Figure 7-24: Waikato District Industrial Land Sufficiency plus Margin (ha)

Name	Short Term Demand	Medium Term Demand	Long Term Demand	ODP Total GFA Capacity	PDP Total GFA Capacity	2070 Total GFA Capacity	Short Term Sufficiency	Medium Term Sufficiency	Long Term Sufficiency
Pokeno	3.0	8.6	24.1	6.3	25.4	42.6			
Tuakau	3.9	9.5	16.5	44.2	60.3	55.3			
Te Kauwhata	2.4	9.4	16.1	3.8	2.8	1.9		Insufficient	Insufficient
Huntly	1.3	4.3	9.7	0.2	0.3	0.2	Insufficient	Insufficient	Insufficient
Ngaruawahia	0.9	3.2	9.8	30.1	54.8	209.3			
Raglan	3.2	7.7	18.2	1.3	1.5	1.5	Insufficient	Insufficient	Insufficient
Rest of Waikato	11.5	32.9	81.5	35.5	52.2	939.5			
Total	**26.3**	**75.7**	**176.0**	**121.3**	**197.3**	**1,250.2**			

Figure 7-25: Waipā District Commercial Land Sufficiency plus Margin (ha)

Name	Short Term	Medium Term	Long Term	Total Vacant Land (sqm)	Short Term	Medium Term	Long Term
Cambridge-Karapiro	3.8	11.6	28.7	4.5		Insufficient	Insufficient
Te Awamutu-Kihikihi	1.6	5.2	18.2	2.4		Insufficient	Insufficient
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	0.6	2.3	7.9	31.5			
Rest of Waipa	0.3	0.8	2.3	0.3		Insufficient	Insufficient
Total	**6.3**	**19.9**	**57.1**	**38.6**			Insufficient

Figure 7-26: Waipā District Retail Land Sufficiency plus Margin (ha)

Name	Short Term	Medium Term	Long Term	Total Vacant Land (sqm)	Short Term	Medium Term	Long Term
Cambridge-Karapiro	0.4	1.6	3.3	1.4		Insufficient	Insufficient
Te Awamutu-Kihikihi	0.2	0.7	2.4	1.4			Insufficient
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	0.1	0.2	0.6	0.4			Insufficient
Rest of Waipa	0.0	0.0	0.1	0.0	Insufficient	Insufficient	Insufficient
Total	**0.7**	**2.6**	**6.5**	**3.2**			Insufficient

Figure 7-27: Waipā District Industrial Land Sufficiency plus Margin (ha)

Name	Short Term	Medium Term	Long Term	Total Vacant Land (sqm)	Short Term	Medium Term	Long Term
Cambridge-Karapiro	3.0	10.3	33.8	64.2			
Te Awamutu-Kihikihi	3.4	8.3	25.1	33.8			
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	1.6	4.8	14.3	76.7			
Rest of Waipa	0.4	1.2	3.6	2.9			Insufficient
Total	**8.4**	**24.7**	**76.8**	**177.7**			

7.4.2 Floorspace Sufficiency plus Margin Results

Once a margin is added to floorspace requirements, insufficiencies identified without the margin appear magnified or appear more rapidly. However, generally there are fewer insufficiencies associated with floorspace than there are with land, as floorspace can be developed more intensively than land – especially for commercial and retail uses.

Hamilton City

At a TA level, Hamilton is well provided for with respect to commercial, retail and industrial floorspace under the current District plan provisions. For industrial floorspace there are some points of local insufficiencies, but for reasons outlined above, these are not as critical as Council looks to focus industrial activity into a few key locations. Chartwell appears to have a deficit of retail floorspace capacity available in the medium and long term, however some of this could easily be met through retail capacity further afield in the developing areas of Rototuna and around Pardoa Blvd. to the east.

Figure 7-28: Hamilton Commercial Floorspace Sufficiency plus Margin (sqm GFA)

Name	Short Term	Medium Term	Long Term	Short Term GFA Capacity (sqm)	Medium Term GFA Capacity (sqm)	Long Term GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Te Rapa	22,732	70,499	147,154	320,039	320,039	320,039			
Chartwell	569	1,739	4,808	12,487	12,487	12,487			
Frankton	7,329	25,470	72,220	56,854	56,854	56,854			Insufficient
CBD	14,287	49,418	137,779	285,310	285,310	285,310			
Ruakura	5,116	15,668	39,742	526	526	526	Insufficient	Insufficient	Insufficient
Other	51,318	163,642	441,977	554,261	554,261	554,261			
Total	**101,351**	**326,437**	**843,679**	**1,229,477**	**1,229,477**	**1,229,477**			

Figure 7-29: Hamilton Retail Floorspace Sufficiency plus Margin (sqm GFA)

Name	Short Term	Medium Term	Long Term	Short Term GFA Capacity (sqm)	Medium Term GFA Capacity (sqm)	Long Term GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Te Rapa	7,146	20,067	30,530	21,293	21,293	21,293			Insufficient
Chartwell	1,594	5,131	13,536	2,911	2,911	2,911		Insufficient	Insufficient
Frankton	2,376	7,142	18,558	9,533	9,533	9,533			Insufficient
CBD	2,857	10,974	21,727	80,929	80,929	80,929			
Ruakura	171	597	1,749	47,606	148,066	148,066			
Other	11,907	40,274	96,896	171,446	171,446	171,446			
Total	**26,051**	**84,185**	**182,996**	**333,717**	**434,177**	**434,177**			

Figure 7-30: Hamilton Industrial Floorspace Sufficiency plus Margin (sqm GFA)

Name	Short Term	Medium Term	Long Term	Short Term GFA Capacity (sqm)	Medium Term GFA Capacity (sqm)	Long Term GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Te Rapa	156,847	501,193	960,995	294,780	294,780	1,176,286		Insufficient	
Chartwell	793	2,364	6,793	700	700	700	Insufficient	Insufficient	Insufficient
Frankton	34,337	126,247	364,519	32,973	32,973	32,973	Insufficient	Insufficient	Insufficient
CBD	11,424	39,868	114,953	4,539	4,539	4,539	Insufficient	Insufficient	Insufficient
Ruakura	6,675	21,009	62,751	513,454	1,184,342	1,319,972			
Other	40,278	124,874	351,978	74,673	74,673	74,673		Insufficient	Insufficient
Total	**250,353**	**815,554**	**1,861,988**	**921,118**	**1,592,006**	**2,609,143**			

Waikato District

The Waikato District has ample capacity for retail floorspace across most reporting areas. Areas of undersupply identified in the commercial and industrial sector are further magnified by the additional competitiveness margin. Commercial floorspace capacity is insufficient at the TA level in the long run with local insufficiencies across all reporting areas except for Pōkeno and Te Kauwhata.

The commercial floorspace deficit for the district is around 62,100sqm in the long run. Industrial capacity is sufficient at the TA level, however, local insufficiencies are identified in Huntly and Raglan in the short term and in Te Kauwhata in the medium term. Huntly and Te Kauwhata's deficits can largely be met by capacity in adjacent areas. However, Raglan may require pro-active zoning if possible due to locational factors. The overall position is that Waikato remains relatively well served by its District Plan in terms of the amount of built floorspace the provisions allow. **However, Council will need to monitor the district's commercial demand-supply balance given the projected insufficiency in the long term at the TA level**.

Figure 7-31: Waikato District Commercial Floorspace Sufficiency plus Margin (sqm GFA)

Name	Short Term Demand	Medium Term Demand	Long Term Demand	ODP Total GFA Capacity	PDP Total GFA Capacity	2070 Total GFA Capacity	Short Term Sufficiency	Medium Term Sufficiency	Long Term Sufficiency
Pokeno	2,127	6,550	18,094	97,623	114,777	60,329			
Tuakau	3,785	13,975	33,157	489,702	40,159	4,719			Insufficient
Te Kauwhata	2,798	10,716	20,555	71,732	76,057	79,136			
Huntly	2,267	8,948	20,173	17,866	13,180	8,123			Insufficient
Ngaruawahia	2,288	7,544	19,899	149,654	16,370	5,055			Insufficient
Raglan	3,979	10,116	25,493	21,481	27,648	3,135			Insufficient
Rest of Waikato	8,558	30,696	85,224	97,697	72,077	0			Insufficient
Total	**25,801**	**88,546**	**222,596**	**945,756**	**360,267**	**160,496**			Insufficient

Figure 7-32: Waikato District Retail Floorspace Sufficiency plus Margin (sqm GFA)

Name	Short Term Demand	Medium Term Demand	Long Term Demand	ODP Total Vacant Land	PDP Total Vacant Land	2070 Total Vacant Land	Short Term Sufficiency	Medium Term Sufficiency	Long Term Sufficiency
Pokeno	665	1,301	2,575	36,182	39,352	39,330			
Tuakau	4,042	9,359	12,355	43,000	13,769	13,785			
Te Kauwhata	205	1,736	3,277	60,845	26,077	35,461			
Huntly	297	1,475	2,572	17,241	4,519	4,312			
Ngaruawahia	264	919	5,479	2,767	5,613	6,654			
Raglan	1,421	3,000	6,711	17,843	9,479	5,842			Insufficient
Rest of Waikato	1,194	4,523	14,150	19,418	31,341	28,852			
Total	**8,088**	**22,313**	**47,120**	**197,297**	**130,149**	**134,236**			

Figure 7-33: Waikato District Industrial Floorspace Sufficiency plus Margin (sqm GFA)

Name	Short Term Demand	Medium Term Demand	Long Term Demand	ODP Total GFA Capacity	PDP Total GFA Capacity	2070 Total GFA Capacity	Short Term Sufficiency	Medium Term Sufficiency	Long Term Sufficiency
Pokeno	12,484	35,623	100,527	23,938	97,334	163,105			
Tuakau	15,949	38,989	67,609	169,204	231,082	211,981			
Te Kauwhata	9,941	38,680	66,781	14,719	10,688	7,122		Insufficient	Insufficient
Huntly	5,627	18,149	40,705	845	966	707	Insufficient	Insufficient	Insufficient
Ngaruawahia	3,790	13,420	40,850	115,114	194,165	801,464			
Raglan	13,056	31,633	74,645	4,919	5,622	5,622	Insufficient	Insufficient	Insufficient
Rest of Waikato	47,525	136,099	337,993	135,912	200,104	3,598,275			
Total	**108,371**	**312,594**	**729,109**	**464,651**	**739,960**	**4,788,277**			

Waipā District

Overall Waipā District remains well provided for even in with the additional competitiveness margins added to demand. As with the other partnership councils, there are some local insufficiencies for retail and industrial floorspace capacity in the long term. The retail and industrial floorspace deficit identified across the rest of Waipā can easily be accommodated within the other main centres where there is more than sufficient capacity to accommodate demand growth plus margin in the long term.

Figure 7-34: Waipā District Commercial Floorspace Sufficiency plus Margin (sqm GFA)

Name	Short Term	Medium Term	Long Term	Total GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Cambridge-Karapiro	10,972	33,673	83,277	365,714			
Te Awamutu-Kihikihi	4,266	13,771	48,440	127,871			
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	2,106	7,181	24,193	869,459			
Rest of Waipa	732	2,418	6,295	25,899			
Total	**18,077**	**57,043**	**162,205**	**1,388,943**			

Figure 7-35: Waipā District Retail Floorspace Sufficiency plus Margin (sqm GFA)

Name	Short Term	Medium Term	Long Term	Total GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Cambridge-Karapiro	3,099	10,730	22,478	33,287			
Te Awamutu-Kihikihi	1,916	6,335	19,151	33,439			
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	539	1,521	3,641	9,531			
Rest of Waipa	66	258	573	0	Insufficient	Insufficient	Insufficient
Total	**5,620**	**18,844**	**45,844**	**76,257**			

Figure 7-36: Waipā District Industrial Floorspace Sufficiency plus Margin (sqm GFA)

Name	Short Term	Medium Term	Long Term	Total GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Cambridge-Karapiro	17,835	59,964	192,353	259,634			
Te Awamutu-Kihikihi	19,181	47,225	142,495	127,848			Insufficient
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	8,591	25,664	75,395	434,100			
Rest of Waipa	2,069	7,120	20,857	11,117			Insufficient
Total	**47,676**	**139,973**	**431,099**	**832,699**			

7.5 Sensitivity analysis of Ruakura capacity

Sensitivity analysis has been conducted to reflect alternative possibilities for land development outcomes in Ruakura. This is only considered because of the potentially acute impact of constraints in Ruakura, given it represents half of the total industrial capacity in Hamilton.

On the basis of the Martin Udale report[25] and associated memo[26], which identified TGHL's (Ruakura landowner) estimates of land uptake as conservative, the leasehold status of land at Ruakura which may not be attractive to a part of the industrial market, the uncertainty around the construction of the Eastern Transport Corridor, and the significant land take for stormwater infrastructure the flat topography at Ruakura imposes, - a reduction to 40% of the base capacity for that area was applied as a sensitivity test as directed by HCC.

Although there is still sufficient capacity in Ruakura under this scenario, total demand at the Hamilton City level now exceeds total vacant land in the medium term. In the long term, the deficit is now 1.6 million sqm. This is a nearly threefold increase compared with the baseline deficit, 550,000 sqm (shown in Figure 7-1).

Figure 7-37: Hamilton City Industrial Land Sufficiency (sqm) With Sensitivity

Name	Short Term	Medium Term	Long Term	Short Term Vacant Land (sqm)	Medium Term Vacant Land (sqm)	Long Term Vacant Land (sqm)	Short Term	Medium Term	Long Term
Te Rapa	320,900	1,027,200	2,056,700	396,400	396,400	1,498,300		Insufficient	Insufficient
Chartwell	1,600	4,900	14,600	1,400	1,400	1,400	Insufficient	Insufficient	Insufficient
Frankton	71,200	259,500	782,100	45,900	45,900	45,900	Insufficient	Insufficient	Insufficient
CBD	23,100	80,700	243,200	7,700	7,700	7,700	Insufficient	Insufficient	Insufficient
Ruakura	13,600	42,800	133,600	330,500	692,100	692,100			
Other	81,800	253,900	747,500	144,100	144,100	144,100		Insufficient	Insufficient
Total	512,200	1,669,000	3,977,600	925,800	1,287,500	2,389,400		Insufficient	Insufficient

Incorporating competitiveness margins further exacerbates the total city level deficits occurring in the medium and long-term. The medium-term deficit increases to 715,000 sqm, and the long-term deficit increasing to 2.27 million sqm. Land demand in Ruakura is still significantly lower than capacity, equalling only 19% of capacity in the long run.

[25] Frequency Ltd, 2023. *Discussion Paper – Industrial Land Scoping Review,* prepared for Hamilton City Council, 3 April 2023.

[26] Frequency Ltd, 2024. *Re: Hamilton Industrial Land Supply Scoping Study – March 2023,* memo to Dr. Mark Davey, Hamilton City Council, 18 March 2024.

Figure 7-38 Hamilton City Industrial Land Sufficiency (sqm) Plus Margin and With Sensitivity

Name	Short Term	Medium Term	Long Term	Short Term Vacant Land (sqm)	Medium Term Vacant Land (sqm)	Long Term Vacant Land (sqm)	Short Term	Medium Term	Long Term
Te Rapa	385,000	1,232,600	2,365,200	396,400	396,400	1,498,300		Insufficient	Insufficient
Chartwell	2,000	5,800	16,800	1,400	1,400	1,400	Insufficient	Insufficient	Insufficient
Frankton	85,400	311,400	899,400	45,900	45,900	45,900	Insufficient	Insufficient	Insufficient
CBD	27,700	96,800	279,600	7,700	7,700	7,700	Insufficient	Insufficient	Insufficient
Ruakura	16,300	51,300	153,700	330,500	692,100	692,100			
Other	98,200	304,700	859,600	144,100	144,100	144,100		Insufficient	Insufficient
Total	614,600	2,002,800	4,574,300	925,800	1,287,500	2,389,400		Insufficient	Insufficient

7.6 FPP Level Results

At the total Future Proof Partners level, the plan enabled capacity for retail and industrial land is sufficient to meet the anticipated growth needs over the long term. Figure 7-39 shows that retail and industrial land demand over the short, medium and long terms is significantly less than the amount of land provided for in the various district plans. Waipa District has insufficient retail land capacity in the long term, however, when viewed from a floorspace perspective there is no demand-supply imbalance (Figure 7-40). In terms of commercial land, there are insufficiencies identified for each of the FPP Councils in the long term. Given that commercial (and retail) land is able to be developed more intensively generating larger amounts of floorspace, identified shortfalls in commercial land capacity (when translated to floorspace) become less of an issue.

Total FPP demand for retail land is approximately 75% of retail land capacity over the long term, while industrial demand is 40% of industrial land capacity. For Hamilton City, a shortage of industrial capacity is identified in the long term while demand-supply margins are sufficient for Waikato (14%) and Waipā (43%).

Figure 7-39: Future Proof Business Land Sufficiency Summary (ha)

Sector	Demand Growth (ha)			Estimated Land Availability (ha)			Sufficiency Measure		
	Short Term (+20%)	Medium Term (+20%)	Long Term (+15%)	Short Term	Medium Term	Long Term	Short Term	Medium Term	Long Term
Commercial									
Hamilton City	16.2	52.0	135.0	28.0	28.0	28.0		Insufficient	Insufficient
Waikato District	4.2	14.7	37.3	36.1	25.2	25.9			Insufficient
Waipa District	6.3	19.9	57.1	38.6	38.6	38.6			Insufficient
TOTAL FUTURE PROOF	26.7	86.7	229.4	102.7	91.9	92.5			Insufficient
Retail									
Hamilton City	4.3	14.0	30.5	22.0	35.4	35.4			
Waikato District	1.3	3.7	7.9	15.2	20.7	21.2			
Waipa District	0.7	2.6	6.5	3.2	3.2	3.2			Insufficient
TOTAL FUTURE PROOF	6.4	20.3	44.8	40.3	59.2	59.7			
Industrial									
Hamilton City	61.5	200.3	457.4	125.6	214.5	342.8			Insufficient
Waikato District	26.3	75.7	176.0	121.3	197.3	1,250.2			
Waipa District	8.4	24.7	76.8	177.7	177.7	177.7			
TOTAL FUTURE PROOF	96.1	300.6	710.2	424.6	589.4	1,770.6			

In terms of business floorspace capacity, there are significant levels of supply across all sector types within the FPP area (Figure 7-40). At the TA level, a shortage of commercial floorspace within the Waikato District has been identified, a deficit of around 62,100sqm.

Total commercial floorspace demand accounts for 44% of supply long term, while retail demand reaches 43% of plan-enabled floorspace long term. Industrial floorspace demand plus margin reaches around 37% of the realistic industrial space identified across the partnership councils.

Figure 7-40: Future Proof Business Space Sufficiency Summary (sqm GFA)

Sector	Demand Growth (sqm)			Estimated GFA Availability (sqm)			Sufficiency Measure		
	Short Term (+20%)	Medium Term (+20%)	Long Term (+15%)	Short Term	Medium Term	Long Term	Short Term	Medium Term	Long Term
Commercial									
Hamilton City	101,400	333,600	843,700	1,229,500	1,229,500	1,229,500			
Waikato District	25,800	88,500	222,600	945,800	360,300	160,500			Insufficient
Waipa District	18,100	57,043	162,205	1,388,943	1,388,943	1,388,943			
TOTAL FUTURE PROOF	145,300	479,143	1,228,505	3,564,243	2,978,743	2,778,943			
Retail									
Hamilton City	26,100	84,185	182,996	333,717	434,177	434,177			
Waikato District	8,100	22,313	47,120	197,297	130,149	134,236			
Waipa District	5,600	18,844	45,844	76,257	76,257	76,257			
TOTAL FUTURE PROOF	39,800	125,341	275,960	607,270	640,583	644,670			
Industrial									
Hamilton City	250,400	815,554	1,861,988	921,118	1,592,006	2,609,143			
Waikato District	108,400	312,594	729,109	464,651	739,960	4,788,277			
Waipa District	47,700	139,973	431,099	832,699	832,699	832,699			
TOTAL FUTURE PROOF	406,500	1,268,121	3,022,197	2,218,469	3,164,666	8,230,119			

These results indicate that there is more than enough capacity enabled to meet demand across the Future Proof Partnership area in terms of floorspace supply. Councils are advised to monitor growth that is likely to emerge out of Auckland as industrial areas (in particular) reach capacity and lower cost land in Waikato becomes attractive. In addition, Councils should monitor closely the potential reorganisation of the Upper North Island Port infrastructure, as this is likely to have significant effects in terms of provision of warehousing and storage facilities as well as general logistics related activity.

Finally, the reliance within Hamilton City of capacity provided in 2 locations – one of which is tightly held by Tainui Group Holdings, who provide industrial capacity on leasehold basis, may lead to some businesses looking elsewhere for land ownership.

7.6.1 Matamata-Piako District BDCA Results

Matamata-Piako District Council (MPDC) joined the Future Proof Partners in November 2021. Subsequently, M.E was commissioned by MPDC to prepare their BDCA on the back of the 2021 HBA assessment for the original FPP area. A further update of the 2022 MPD BDCA was completed in October 2023 in light of the National Policy Statement on Highly Productive Land (NPS-HPL) and other updates post the original assessment. Although Matamata-Piako District is a Tier 3 urban environment, a consistent approach was applied to align with the assessment for the Tier 1 original FPP area. This section sets out the projected demand, estimated capacity and sufficiency results of the updated (October 2023) BDCA for the Matamata-Piako District.

The BDCA assessment analysed the current and past patterns of economic activity across the district and the consequent demands for space within the district's main urban townships: Matamata, Morrinsville, Te Aroha and Waharoa. It has then calculated the likely future demands for space based on the WISE High Series projections (to align with FPP) and patterns of land use by sector and location. These have been

compared to a detailed assessment of the potential capacity within the urban areas to estimate the adequacy of provision for anticipated future growth.

Projected Demand

Based on the underlying WISE High Series employment projections, there is projected demand for an additional 1.1 ha (1.4 ha with a margin) of Business Zone space and 8.8 ha to 14.1 ha (10.6 ha to 16.9 ha with a margin) of Industrial Zone space across the district's main urban townships in the short-term. In the long-term, this is projected to increase to 11.0 ha (13.0 ha with a margin) of Business Zone space and 68.6 ha to 109.8 ha (80.3 ha to 128.4 ha with a margin) of Industrial Zone space.

Faster growth is projected to continue to occur within the urban townships, with the largest net growth in the main urban townships of Morrinsville and Matamata. Together with Te Aroha, these form the key urban nodes in the north and south of the district.

There is a projected change in the structure of economic activity across the district through time that is likely to affect the nature of future land use demand. In the short-term, growth is projected to continue to be dominated by industrial activity. However, in the long-term, the commercial sector is projected to have the largest share of employment growth.

Over the long-term, there is a reduction in growth within the retail sector, with a higher proportion of growth instead occurring in other commercial sectors. This translates into changes in the space demands within the Business Zone, which forms the primary location for these types of activity. The projections show that a greater share of the activity will be in commercial services, which the assessment estimates to have lower space demands (per employee) than retail activity.

Estimated Capacity

Within the Business Zone, the assessment identified 13.9 ha of infrastructure served capacity across the district. This includes 2.0 ha of fully vacant parcels and 11.9 ha of vacant portions of parcels (excluding areas used as yards) that already contain some development. Over half of the Business Zone vacant area is in Morrinsville, and over one-quarter in Matamata.

In addition to the vacant areas, there is a further 13.2 ha of Business Zone land area that is currently occupied by residential uses. This may represent capacity for potential future expansion of business uses within the zone. Although, the feasibility may be limited across many sectors and restricted to higher value commercial uses.

In total, there is an estimated 46.3 ha of infrastructure served Industrial Zone land across the district's main townships – once undevelopable areas are removed. This capacity estimate includes the undeveloped portions of partly developed sites (7.5 ha).

Note large shares of the Business Zone capacity within Te Aroha are excluded due to flood hazards. Furthermore, MPDC have advised that Waharoa does not currently contain infrastructure for further development of the Industrial or Business Zone. As such, only capacity within Waharoa North's light industrial zone has been brought forward into the final sufficiency assessment.

Sufficiency Assessment

Business Zone

The sufficiency of capacity within the Business Zone of each urban township is shown in Figure 7-41 for the short, medium and long-term. The left hand side of the table contains the estimated capacity, with the demand and sufficiency assessment on the right hand side. The sufficiency of capacity is expressed in land area (ha) as the difference between the estimated capacity and the projected demand for each time period. Values greater than 0 indicate a surplus of capacity, while values below zero indicating a shortfall, with the size of the values (ha) showing the scale of the surplus or shortfall.

Figure 7-41: Sufficiency of Business Zone Capacity by Urban Township, Matamata-Piako District

Location	Infrastructure-Served Capacity (Ha)		No Margin			Including Margin		
	Total Vacant Area	Vacant Area and Residential Redevelopment Potential	Short-Term: 2023 - 2026	Medium-Term: 2023 - 2033	Long-Term: 2023 - 2054	Short-Term: 2023 - 2026	Medium-Term: 2023 - 2033	Long-Term: 2023 - 2054
			NET CHANGE IN DEMAND (Ha)					
Matamata	4.3	10.6	0.4	1.4	2.9	0.4	1.7	3.5
Morrinsville[1]	8.9	12.8	0.6	1.9	6.2	0.8	2.3	7.2
Te Aroha	0.7	3.7	-0.0	0.1	0.8	-0.0	0.1	0.9
Waharoa	-	-	0.1	0.4	1.2	0.2	0.5	1.4
Total Townships	**13.9**	**27.1**	**1.1**	**3.9**	**11.0**	**1.4**	**4.7**	**13.0**
			SUFFICIENCY (net Ha) - Total Vacant Area					
Matamata	4.3		3.9	2.9	1.5	3.9	2.6	0.9
Morrinsville[1]	8.9		8.3	7.0	2.7	8.1	6.6	1.7
Te Aroha	0.7		0.7	0.6	-0.0	0.7	0.6	-0.2
Waharoa	-		-0.1	-0.4	-1.2	-0.2	-0.5	-1.4
Total Townships	**13.9**		**12.8**	**10.1**	**2.9**	**12.6**	**9.3**	**0.9**
			SUFFICIENCY (net Ha) - Total Vacant Area + Residential Redevelopment Potential					
Matamata		10.55	10.2	9.2	7.7	10.1	8.9	7.1
Morrinsville[1]		12.84	12.2	10.9	6.6	12.1	10.5	5.6
Te Aroha		3.68	3.7	3.6	2.9	3.7	3.5	2.8
Waharoa		-	-0.1	-0.4	-1.2	-0.2	-0.5	-1.4
Total Townships		**27.07**	**26.0**	**23.2**	**16.1**	**25.7**	**22.4**	**14.1**

Source: M.E Matamata-Piako District Capacity and Demand Model, 2023 and Matamata-Piako District Council Land Use Survey, 2022.

Overall, the assessment has found that there is sufficient capacity to meet the projected future activity needs within the Business Zone at the district level. There is a surplus across all time periods at the district level, taking into account vacant areas only. Beyond this there is significant additional capacity within the three main urban townships (Matamata, Morrinsville and Te Aroha) Business Zone through the potential to expand into areas of the zone that are currently occupied by residential uses. There are likely to be some challenges to the feasibility of this expansion due to the existing residential uses and smaller parcel sizes, particularly in areas with recent residential development.

The exception occurs in Waharoa, where there is a projected shortfall of around 1.2 ha (1.4 ha with a margin) in the long-term under both capacity scenarios.

Industrial Zone

The sufficiency of capacity within the Industrial Zone of each urban township is shown in Figure 7-42 for the short, medium and long-term. The left hand side of the table contains the estimated capacity, with the demand and sufficiency assessment on the right hand side.

The assessment uses a range of 500m^2 to 800m^2 of land area per employee to convert industrial employment to land demand. This is below the current ratios, however, lower ranges were applied to allow for a share of demand to be met through gradual intensification of industrial land use through time[27]. Furthermore, the lower ratios reflect that a share of the industrial employment demand is likely to be met within the Business Zone area within each township due to the overlap in activity types anticipated within these zones.

The assessment identified that Industrial Zone capacity is likely to be a key issue for the district in the medium and long-term, particularly within the northern parts of the district, and within the southern parts of the district.

In the short-term, there is a projected surplus of 32.3 ha to 37.4 ha (29.3 ha to 35.7 ha with a margin) of Industrial zoned land across the main urban townships. Within this, there is likely to be sufficient capacity across the district's two largest urban townships of Morrinsville and Matamata, which could meet demand arising generally within the northern and southern parts of the district.

Under the current capacity scenario, significant shortfalls in capacity are projected to emerge in the medium-term across some locations. At the district level in the medium-term, there is a projected surplus of 3.2 ha to 19.3 ha. Including a margin, the surplus decreases to 13.9 ha and a shortfall of 5.5 ha emerges. The projected shortfalls increase to between 22.4 ha and 63.5 ha (34.0 ha to 82.2 ha with a margin) in the long-term with the growth in industrial demand.

Existing patterns of activity within the zone across the district show high levels of demand for yard space, which form the basis for potentially higher rates of land uptake from industrial activities. The shortfalls of Industrial Zone capacity are projected to worsen in the long-term across the northern parts of the district as demand increases through time.

Under the High Series projection there is a projected shortfall within the northern and southern parts of the district when the higher uptake rate scenario is applied. Addressing future industrial supply is likely to form a key issue for MPDC in the medium to long-term.

[27] The application of lower ranges also allows for a proportion of the future employment growth to be met through employment growth within existing businesses.

Figure 7-42: Sufficiency of Industrial Zone Capacity by Urban Township, Matamata-Piako District

Location	ODP Capacity (Infrastructure Served)	No Margin						Including Margin					
		Low Ratio (500m2 per employee)			High Ratio (800m2 per employee)			Low Ratio (500m2 per employee)			High Ratio (800m2 per employee)		
		Short-Term: 2023 - 2026	Medium-Term: 2023 - 2033	Long-Term: 2023 - 2054	Short-Term: 2023 - 2026	Medium-Term: 2023 - 2033	Long-Term: 2023 - 2054	Short-Term: 2023 - 2026	Medium-Term: 2023 - 2033	Long-Term: 2023 - 2054	Short-Term: 2023 - 2026	Medium-Term: 2023 - 2033	Long-Term: 2023 - 2054
		Net Change in Land Demand (Ha) (No Margin)						Net Change in Land Demand (Ha) (incl. Margin)					
Matamata	11.0	3.5	11.4	28.6	5.6	18.3	45.7	4.2	13.7	33.4	6.7	22.0	53.5
Morrinsville[1]	23.6	4.0	11.8	27.2	6.4	19.0	43.6	4.8	14.2	31.9	7.7	22.7	51.0
Te Aroha	-	0.6	1.8	8.2	1.0	2.9	13.1	0.7	2.2	9.5	1.2	3.4	15.2
Waharoa	11.7	0.7	1.9	4.6	1.1	3.0	7.4	0.8	2.2	5.4	1.3	3.6	8.7
Total Townships	**46.3**	**8.8**	**26.9**	**68.6**	**14.1**	**43.1**	**109.8**	**10.6**	**32.3**	**80.3**	**16.9**	**51.7**	**128.4**
		SUFFICIENCY (net Ha) (No Margin)						SUFFICIENCY (net Ha) (Incl. Margin)					
Matamata		7.5	-0.4	-17.6	5.4	-7.3	-34.7	6.8	-2.7	-22.4	4.3	-10.9	-42.5
Morrinsville[1]		19.5	11.7	-3.7	17.1	4.6	-20.0	18.7	9.3	-8.3	15.8	0.8	-27.5
Te Aroha		-0.6	-1.8	-8.2	-1.0	-2.9	-13.1	-0.7	-2.2	-9.5	-1.2	-3.4	-15.2
Waharoa		11.0	9.8	7.0	10.6	8.7	4.2	10.9	9.4	6.2	10.4	8.1	3.0
Total Northern Townships		*18.9*	*9.9*	*-11.8*	*16.1*	*1.7*	*-33.1*	*18.0*	*7.2*	*-17.8*	*14.6*	*-2.6*	*-42.7*
Total Southern Townships		*18.5*	*9.4*	*-10.5*	*16.0*	*1.4*	*-30.5*	*17.7*	*6.7*	*-16.2*	*14.7*	*-2.8*	*-39.5*
Total Townships		**37.4**	**19.3**	**-22.4**	**32.2**	**3.2**	**-63.5**	**35.7**	**13.9**	**-34.0**	**29.3**	**-5.5**	**-82.2**

Source: M.E Matamata-Piako District Capacity and Demand Model, 2023 and Matamata-Piako District Council Land Use Survey, 2022.

[1] Morrinsville includes Morrinsville and Morrinsville South.

7.7 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 across the key urban centres, rather than across the entirety of each district within FPP. This means that there are no specific scores for 'Other', 'Rest of Waikato' or 'Rest of Waipā' because they are not locations with locational characteristics.

7.7.1 Hamilton City MCA

Figure 7-43: Hamilton City Commercial Land Demand, long term Supply and MCA Scores

Name	Short Term	Medium Term	Long Term	Total Vacant Land (ha)	MCA Score
Te Rapa	3.3	8.6	18.9	9.5	83
Chartwell	0.1	0.3	0.7	0.2	62
Frankton	0.9	3.1	9.2	1.6	66
CBD	1.7	6.0	17.3	5.7	89
Ruakura	0.7	2.1	5.4	0.0	75
Other	7.3	23.3	65.8	11.1	
Total	**14.1**	**43.4**	**117.4**	**28.0**	

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 CBD scores highest for locating Commercial land therefore over time it has become highly developed and provides limited vacant land for commercial development. In fact, in commercial land terms, and at the TA level Hamilton City runs short of vacant land for commercial demand in the medium term. This is not the case with respect to the ability of that land to provide commercial GFA, where the land available supports GFA capacity significantly in excess of long term demand.

Other than the CBD the area with the next highest MCA score (Te Rapa) has the most capacity. This indicates that Hamilton City Council's plan provisions match the commercial development markets requirements (Figure 7-43).

Retail land is reasonably aligned with areas that show the potential for development. However, there is some mismatch between capacity and the MCA. Te Rapa and the CBD score the highest with respect to provision of retail land – yet the most capacity is located at Ruakura – which scores the lowest. All areas have provision that falls short of demand in the long run with the exception of the CBD and Ruakura. The new centre to the north or Chartwell at Rototuna, will meet plenty of the growth needs of the Chartwell catchment although this is an area that needs monitoring.

However, the shortfall at Te Rapa in the medium term is significant and will require action from Council.

Figure 7-44: Hamilton City Retail Land Sufficiency and MCA Scores

Name	Short Term	Medium Term	Long Term	Total Vacant Land (ha)	MCA Score
Te Rapa	1.0	2.8	4.4	1.5	89
Chartwell	0.2	0.7	2.0	0.2	76
Frankton	0.3	1.0	2.7	0.6	71
CBD	0.4	1.5	3.1	4.3	88
Ruakura	0.0	0.1	0.3	19.7	70
Other	1.7	5.6	14.0	9.0	
Total	**3.6**	**11.7**	**26.5**	**35.4**	

Hamilton City's Industrial Land supply most closely aligns Capacity with high MCA appropriateness scores. The top three scoring areas provide 89% of long term capacity for Hamilton. Te Rapa sores the highest at 92 providing some 44% of total capacity. Second highest scoring location is Frankton which provides only 1% of capacity, followed by Ruakura with 50% of capacity. Although the majority of long term capacity is provided in Ruakura the ability to freehold land is constrained in this location – as discussed above, this may have implications in terms of desirability.[28]

Figure 7-45: Hamilton City Industrial Land Sufficiency and MCA Scores

Name	Short Term	Medium Term	Long Term	Total Vacant Land (ha)	MCA Score
Te Rapa	32.1	102.7	205.7	149.8	92
Chartwell	0.2	0.5	1.5	0.1	63
Frankton	7.1	26.0	78.2	4.6	78
CBD	2.3	8.1	24.3	0.8	61
Ruakura	1.4	4.3	13.4	173.0	73
Other	8.2	25.4	74.7	14.4	
Total	**51.2**	**166.9**	**397.8**	**342.8**	

In summary, Hamilton City's plan enabled capacity broadly 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.

There are a few exceptions that requires monitoring, first the local and district shortage of commercial land for Hamilton City. Second, the number of catchments where industrial land is fully utilised in the medium term such that future growth will be concentrated into 2 catchments (Te Rapa and Ruakura). This study has only identified 22ha of land capacity for industrial uses outside these 2 areas. Based on Hamilton's current growth in demand for Industrial land, this is only 1.7 years of capacity.

[28] The majority of industrial land provided is owned by Tainui Group Holdings.

Finally, Council will need to monitor the response to the Ruakura Industrial land not being available for freehold. This may affect development and if so, put pressure on elsewhere.

7.7.2 Waikato District MCA

Development areas in Waikato District, in general score lower than those in Hamilton City (dues to smaller markets and lower density of business activity and transport links). Only the Industrial land competes effectively with Hamilton City from a development perspective (given its proximity to the large industrial areas in the north and east of Hamilton). 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 Waipā equally attractive to the Hamilton land – but for different reasons.

Figure 7-46: Waikato District Commercial Land Sufficiency and MCA scores

Name	Short Term	Medium Term	Long Term	Total Vacant Land (ha)	MCA Score
Pokeno	0.3	0.9	2.8	6.6	44
Tuakau	0.5	1.9	4.9	2.3	45
Te Kauwhata	0.4	1.5	3.0	5.9	31
Huntly	0.3	1.3	3.1	0.7	51
Ngaruawahia	0.3	1.1	2.9	1.1	44
Raglan	0.5	1.4	3.7	1.0	34
Rest of Waikato	1.1	4.2	12.1	8.3	
Total	**3.5**	**12.3**	**32.4**	**25.9**	

Of the areas assessed there is a reasonable match between areas that score highly for commercial land development and capacity. The largest areas all score in the upper middle range across Waikato District (Ngāruawāhia, Pōkeno and Tuakau).

Waikato Retail land has some alignment, with the largest plan enabled capacity area (Pōkeno) scoring in the upper middle bracket. Identified mismatches include Te Kauwhata which has the second largest amount of plan enabled capacity but scores the lowest across the FPP area and Huntly where little capacity exists but scores the highest across Waikato District.

Figure 7-47: Waikato District Retail Land Sufficiency and MCA Scores

Name	Short Term	Medium Term	Long Term	Total Vacant Land (ha)	MCA Score
Pokeno	0.1	0.2	0.4	4.9	52
Tuakau	0.6	1.3	1.8	1.7	47
Te Kauwhata	0.0	0.2	0.5	4.4	32
Huntly	0.0	0.2	0.4	0.5	61
Ngaruawahia	0.0	0.1	0.8	0.8	49
Raglan	0.2	0.4	1.0	0.7	39
Rest of Waikato	0.2	0.6	2.1	8.0	
Total	**1.1**	**3.1**	**6.8**	**21.2**	

Industrial land plan enabled capacity in Waikato District is broadly aligned with the MCA scores. The largest area of capacity (Ngāruawāhia in the long run) scores highly on the MCA framework (second only to Huntly as a location) meaning there is a good fit between planning provisions and development potential.

The only area of concern is Huntly, which scores highly as a location for industrial activity, yet has only 0.4ha of vacant industrial land provided. In the long run, demand likely to be focused on Huntly is 8.5ha, meaning Council should begin investigating industrial land expansion opportunities in Huntly.

Figure 7-48: Waikato District Industrial Land Sufficiency and MCA Scores

Name	Short Term	Medium Term	Long Term	Total Vacant Land (ha)	MCA Score
Pokeno	2.5	7.2	21.0	42.6	69
Tuakau	3.2	7.9	14.3	55.3	62
Te Kauwhata	2.0	7.8	14.0	1.9	46
Huntly	1.1	3.6	8.5	0.2	76
Ngaruawahia	0.8	2.7	8.5	209.3	71
Raglan	2.7	6.4	15.9	1.5	39
Rest of Waikato	9.6	27.4	70.8	939.5	
Total	**21.9**	**63.1**	**153.0**	**1,250.2**	

7.7.3 Waipā District MCA

Development potential in Waipā District is really limited to the two large urban centres (Cambridge and Te Awamutu) and Titanium Park contained within Rukuhia-Ngahinapouri/Ohaupo/Pirongia area. Lack of differentiation within each of these areas means the MCA is limited. However, the assessment shows that the majority of commercial plan enabled capacity identified in Titanium Park (Rukuhia), scores lower than the rest (Figure 7-49). This is because of its location away from the population centres of Waipā. This is of limited interest to the businesses looking to locate there, who are focused on both airport related activity and the close proximity to the southern areas of Hamilton City (Peacockes)

This pattern is repeated across the industrial areas, however retail vacant capacity is aligned with the MCA in that Cambridge scores highest and has the second largest capacity (Figure 7-50 and Figure 7-51).

Figure 7-49: Waipā District Commercial Land Sufficiency and MCA Scores

Name	Short Term	Medium Term	Long Term	Total Vacant Land (ha)	MCA Score
Cambridge-Karapiro	3.2	9.7	24.9	4.5	64
Te Awamutu-Kihikihi	1.4	4.3	15.8	2.4	60
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	0.5	1.9	6.9	31.5	42
Rest of Waipa	0.2	0.7	2.0	0.3	
Total	**5.3**	**16.6**	**49.6**	**38.6**	

Figure 7-50: Waipā District Retail Land Sufficiency and MCA Scores

Name	Short Term	Medium Term	Long Term	Total Vacant Land (ha)	MCA Score
Cambridge-Karapiro	0.4	1.3	2.9	1.4	66
Te Awamutu-Kihikihi	0.2	0.6	2.1	1.4	59
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	0.1	0.2	0.5	0.4	48
Rest of Waipa	0.0	0.0	0.1	0.0	
Total	**0.6**	**2.1**	**5.6**	**3.2**	

Figure 7-51: Waipā District Industrial Land Sufficiency and MCA Scores

Name	Short Term	Medium Term	Long Term	Total Vacant Land (ha)	MCA Score
Cambridge-Karapiro	2.5	8.6	29.4	64.2	72
Te Awamutu-Kihikihi	2.8	7.0	21.8	33.8	67
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	1.3	4.0	12.4	76.7	62
Rest of Waipa	0.3	1.0	3.1	2.9	
Total	**7.0**	**20.6**	**66.8**	**177.7**	

7.8 Conclusions

In general, the MCA framework has aligned well with plan enabled capacity across the FPP area. The key exception is in Chartwell and Frankton where retail land is potentially in short supply in the long term and the MCA scores these areas in the upper range for retail potential. In Waipā, Industrial and Commercial Land capacity is well supplied in Titanium Park which scores lower than the major centres (Cambridge and Te Awamutu) in the MCA terms. This may mean that uptake of this land (Titanium Park) may be slower than growth in demand indicates (except the targets may not be Waipa residential demand). When aligned with the limited surplus vacant capacity within the rest of Waipā (as discussed in the sufficiency sections

above), means that Waipā 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. A shortage of commercial land was identified across each of the FPP Councils however floorspace is significantly in excess of demand, and given floorspace is the most appropriate measure of sufficiency for Commercial activity there is limited reason for concern. The potential pressure likely to be felt across the FPP area with respect to commercial land is not necessarily reflected in floorspace as commercial floorspace co-exists with retail ground floorspace and, commercial land can be development more intensively. The assessment indicates that there is pressure on existing business land areas to maximise their potential GFA across the FPP Councils to meet demand growth. 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;

- For commercial land, a shortage of commercial land capacity has been identified for all FPP areas in the long term. The commercial land deficit in Hamilton is by far the largest with demand plus growth margin almost two times what is provided in the medium term (52ha vs 27ha) and almost 5 times in the long term (130ha demand plus margin compared to 27ha capacity). Overall, the total FPP commercial land shortage is some 133ha.

- The assessment identifies a shortage of retail land in Waipā District in the long term. When viewed from a floorspace perspective, capacity is more than sufficient to accommodate retail demand including a margin in the long term.

- In terms of industrial land, the gap between supply and demand (plus margin) is closest for Hamilton. Industrial land demand accounts for almost 80% of industrial land supply in the medium term, and exceeds capacity by some 20% in the long term. By comparison, the industrial demand-makes up 14% and 43%, of capacity in Waikato and Waipā, respectively.

- This means Hamilton City Council 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.

- In Waikato District and Waipā there appears to have been some effort to identify and recognise very large areas for future industrial capacity. As it currently stands, in the long run demand in Waikato District makes up only 14% of the identified capacity to meet that demand (176ha demand + margin and provision of over 1,250 ha). For Waipā

District long run demand makes up 43% of capacity (77ha demand + margin and provision of 178ha). Although swathes of land have been earmarked for investigation, these are by no means set in stone nor legislated. Decision-makers should be aware that re-zoning such large areas of land has the potential to muddy the waters in the future as technologies change and needs shift. It is likely that the majority of this land won't be needed – yet by identifying, it may limit its use for other purposes.

- High level of cross over between retail and commercial sectors 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.

7.9 Monitoring

The National Policy Statement requires that 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.

Concerns and monitoring areas include;

- Shortage of identified industrial capacity in Huntly, Ngaruawahia and Raglan in relation to growth in demand.
- Shortage of identified commercial land capacity in Hamilton (in the medium term), and Waikato and Waipā (longer term) in relation to growth in demand.
- It will be helpful to monitor the uptake of all vacant business land to understand the rate, space type and GFA of that development. Especially in the major centres and development cells across the sub-region. This will be especially important for commercial land to monitor whether vacant sites are being development to maximise their floorspace potential given commercial land capacity is insufficient.
- 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 the impact on Hamilton CBD.

- Monitor the development of industrial land to ensure this land is being developed for industrial purposes. Historically this has been an issue in Hamilton – mainly in Te Rapa.
- Monitor the response to leasehold land options for industrial demand in Ruakura. Market resistance to leasehold options in this location may lead to more demand focusing on Te Rapa.
- 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. With the NPS-HPL now placing strict rules to prohibit non agricultural productive land uses occupying this land, demand that has traditional located there will be forced back into the zoned industrial areas within the urban areas. This will raise demand and may place pressure on capacity.
- Monitor the actual occupation of development by activity type (using an ANZSIC framework) to understand how locational trends might be shifting.
- Waipā and Waikato are advised to monitor closely the uptake of commercial, retail and industrial land – especially in the key centres (Pōkeno, Tuakau, Huntly, Horotiu, Cambridge, Te Awamutu,). Monitoring of building consents and the nature of occupation by ANZSIC to ensure locational trends are captured. Given Waikato District operates as a series of villages and smaller towns, there may not be the cross over in terms of providing capacity elsewhere to meet shortfalls in a particular location. This could be especially the case for Raglan that sits out on a limb in terms of transport connections.
- Last, Councils are advised to monitor trends in business and employment activity occurring in non-business zones in the urban environment.

To assist FPP Councils with the monitoring process, M.E are developing a Shiny App the will allow Council officers the ability to access the base information, processes and findings of this report. By having the data available online – rather than in table form in a report such as this, will help ensure that Councils gain the greatest amount of benefit from their investment.

The model has been developed for Hamilton City and will be delivered in conjunction with this report. Extensions to cover Waikato District, Waipa District and Matamata Piako District will follow.

8 Future Updates

The NPS-UD requires high growth Councils to carry out this assessment every three years. In that light the 2023 study is the first update from the 2020/21 NPS-UD baseline. The important point from this 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 the 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.

As with the key findings in the 2020/21 report, 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, updated to reflect the NPS-UD guidance published in 2020 to align with the NPS-UD. It is noted that the base assessment processes are the same between the NPS-UDC and the NPS-UD with a very few exceptions. The overall purpose and intent of the work is to provide Councils with more information about demand, supply and sufficiency, 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 WISE – particularly the population projections and economic model within, and a Capacity assessment based on existing supply and future zone ambitions. 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. While in the 2017/18 assessment, Council officers spent significant time in the field carrying out the ground truthing of the raw data. In this iteration – as with the 2020/21 iteration, that baseline ground-truthed capacity was updated using building consent information, updated aerials and CCC's – rather than field time.

In the 2017/18 iteration under the NPS-UDC, the development community was consulted to provide inputs into an assessment framework covering the potential of different pieces of land to be developed. This picked up on locational and physical characteristics of the areas development opportunities and provided a weighting in terms of how important each aspect is to the development decision. Each broad area was then assessed against this framework to produce an overall development score out of 100 for the MCA.

In 2021 and again in 2023, this process was not repeated, rather the existing scores have been realigned to reflect the adjusted spatial framework (brought about by Statistics New Zealand updating their geographies to Statistical Areas, from Census Area Units). However an additional metric was added to the

Industrial land scoring – Ability to Freehold the land. This was done to pick up on the building importance of the Ruakura industrial development to Hamilton's industrial future.

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

As with the last assessment in 2020/21, there have been a number of issues faced in preparing this report;

1. While there have been updates over the past 2 years, a key issue remains the state of the base data sets. Significant time was required 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.

   It is Market Economics strong recommendation, that the FPP Councils fully take over the task of producing the capacity information. This eliminates long periods of time going backwards and forwards looking to align data sets. At the end of the process, ME adopted Hamilton City Councils measures of vacant industrial land for this study.

2. By relying on updating the 2020/21 capacity data with the issuing of CCC's to identify land that has moved from a vacant state to an occupied state appears to have led to mismatches between Council base data (that is updated every few months) and the ME estimates. By relying fully on Council data may require additional work on the ground truthing phase (to be carried out by Council) – but will lead to a more accurate and more timely product.

3. As with the 2020/21 assessment, and the first assessment under the NPS-UDC, translation of activity tables into distinct amounts of capacity across each core economic category is problematic. 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

The key learnings from the 2023 study are similar to those from the 2020/21 study.

The first relates to land capacity data. Council have the most up to date data sets available as well as the most up to date interpretation of operative and proposed plan provisions. Future iterations of the HBA should have Councils compiling the capacity component of the assessment and report. Organisations such as Market Economics have a depth of knowledge of growth and change and how that translates into demand for land and space – as well as tools and techniques to place that growth and change of the ground. This should be the focus for external providers – rather than second guessing Councils own data through their own processes.

M.E will work with FPP Council partners to ensure that these processes guide future updates of the HBA.

As with the previous iteration, 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. In this iteration, there were a number of capacity constraints at M.E and delays with data delivery from FPP councils that caused modelling and analysis to become compressed. With the recommendation above that Council carry out the assessment of capacity and the consultant prepare the demand analysis – this issue will be avoided.

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

Objective 1: New Zealand has well-functioning urban environments that enable all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.

Objective 2: Planning decisions improve housing affordability by supporting competitive land and development markets.

Objective 3: Regional policy statements and district plans enable more people to live in, and more businesses and community services to be located in, areas of an urban environment in which one or more of the following apply:

a) the area is in or near a centre zone or other area with many employment opportunities
b) the area is well-serviced by existing or planned public transport
c) there is high demand for housing or for business land in the area, relative to other areas within the urban environment.

Objective 4: New Zealand's urban environments, including their amenity values, develop and change over time in response to the diverse and changing needs of people, communities, and future generations.

Objective 5: Planning decisions relating to urban environments, and FDSs, take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

Objective 6: Local authority decisions on urban development that affect urban environments are:

a) integrated with infrastructure planning and funding decisions; and
b) strategic over the medium term and long term; and
c) responsive, particularly in relation to proposals that would supply significant development capacity.

Objective 7: Local authorities have robust and frequently updated information about their urban environments and use it to inform planning decisions.

Objective 8: New Zealand's urban environments:

a) support reductions in greenhouse gas emissions; and
b) are resilient to the current and future effects of climate change.

Appendix 2: EFM Drivers of Growth

The economic projections of the economic models contained within WISE 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: Building Consent Floorspace and Land Analysis

In this HBA assessment we sought to cross check and verify averages used to translate employment growth into demand for land and built form. This was done through analysis of historic and recent trends in building consents for both commercial and industrial activities in Hamilton City, with reference to built form and land requirements per worker. The findings of this analysis broadly align with the employment to space and land conversions used in the demand estimates for business land and built space by sector.

The building consent data has been filtered to include only those activities that potentially create built floor area. Where floor area data is missing, an estimate of built space is calculated based on the amount of floor area per hectare, as a ratio. Since 2006, there has been over 1,000 commercial and industrial building consents granted. Commercial building consents accounted for more than half (58%) while the balance (42%) was for industrial activities. Total floor area for these consents is approximately 1.7 million sqm on 2,527ha of land.

Figure 1: Commercial and Industrial Building Consents 2006-2022, Hamilton City

	No. of BCs	Floor Space (sqm)	Land Area (ha)
Commercial	615	1,078,335	1,857
Industrial	438	663,260	669
Total	1,053	1,741,595	2,527

Figure 2, presents commercial and industrial building consent floor space and land area by reporting areas (used in the HBA assessment). The bulk of consented commercial floor space is concentrated in Te Rapa, some 372,970sqm or 35%. This is followed by the 'Other' report designation (33%), Ruakura (16%) and the CBD (14%). Frankton and Chartwell account for less than 4% of consented commercial floor area.

Te Rapa also exhibits the largest amount of consented industrial floor space accounting for 71% or 469,755m^2. Frankton has the next largest quantum of consented industrial floor space with 17% or 112,720m^2. The data emphasizes the traditional role of Te Rapa and Frankton as the main industrial nodes in Hamilton City, however, Ruakura will form a key node for future industrial activities. Consented industrial floor space in Ruakura has only largely occurred in the past 5 year period.

Figure 2: Commercial and Industrial Building Consents 2006-2022 by Study Area

	Te Rapa	Chartwell	Frankton	CBD	Ruakura	Other	Total
	Floor Space (sqm)						
Commercial	372,970	20	36,085	146,465	168,690	354,110	1,078,335
Industrial	469,755	0	112,720	20,330	12,195	48,265	663,260
Total	842,725	20	148,805	166,795	180,885	402,375	1,741,605
	Land Area (sqm)						
Commercial	6,545,610	26,910	243,540	333,585	1,407,205	10,016,805	18,573,655
Industrial	4,398,050	0	760,375	61,085	848,935	623,985	6,692,430
Total	10,943,660	26,910	1,003,915	394,670	2,256,140	10,640,790	25,266,085

Employment to Space and Land Conversions

The relationship between employment, built area and land area is examined further in the following subsection. Employment by broad sector (commercial and industrial) can be identified for the various reporting areas over the building consents period. The change in employment by sector, that is any new employment created can be used to estimate the average floor space and land use requirements per worker within each of the reporting area.

The share of employment growth that is assumed to occur in existing businesses is set at 20% for this assessment. The balance (80%) of employment growth is anticipated to occur through new additions to floor space. Overall, total employment growth between 2006-2022 for Hamilton City was some 20,540 additional workers (or 16,435 at 80% of employment growth focused on new built space) (Figure 3).

Figure 3: Commercial and Industrial Employment Growth 2006-2022

	Te Rapa	Chartwell	Frankton	CBD	Ruakura	Other	Total
Commercial	2,095	65	2,205	1,630	-45	6,365	12,320
Industrial	4,875	-20	750	-145	535	2,225	8,220
Total	6,970	45	2,955	1,485	490	8,590	20,540
	80% of employment growth directed to building consents (where positive)						
Commercial	1,675	50	1,765	1,305	-	5,090	9,855
Industrial	3,900	-	600	-	430	1,780	6,580
Total	5,575	50	2,365	1,305	430	6,870	16,435

Focusing on employment growth occurring on new built space, 60% is commercial and the balance (40%) is industrial employment. Unsurprisingly, Te Rapa has experienced the largest growth in employment across the reporting areas, with the exception of the 'Other' designation. Employment growth within Te Rapa is skewed towards the industrial sector with an additional 3,900 MECs between 2006-2022 (or 4,875 MECs at 100% employment growth).

Average space and land area requirements per worker for building consents can be estimated for each of the study areas. Figure 4 shows the three-year averages for floor space per worker based on the building

consent data and employment growth. Where there is no average floor space per worker observed, floor space consented is either nil or employment is in decline. Key observations;

- The data indicates commercial average floor space per worker is declining in Te Rapa. Space requirements have decreased from 235 m^2/MEC to 85m^2/MEC. Over 2016-2018 the average floor space per worker increases significantly (375m^2/MEC), however, this is an anomality.
- Limited data is available for Chartwell and Ruakura.
- For Ruakura, the data indicates limited floor space has been consented until 2018 with a significant rise in consents from 2019 onwards. This influences the anomaly observed for the 2019-2022 period where an average floor space of 1,215m^2/MEC is observed. This indicates that the industrial development is occurring ahead of full occupation and that at least a portion of the new space is extremely space extensive relative to employment.
- It appears as though, on average industrial floor space per worker is declining. At the total level, floorspace per worker decreases from 100m^2/MEC to 65m^2/MEC over the consenting period. However, the data is lumpy and it may not point to an accurate trend. The one area with solid information (Te Rapa) appears to remain stable.

Figure 4: Average Floor Space (sqm) per Worker

	Te Rapa	Chartwell	Frankton	CBD	Ruakura	Other	Total
	Commercial						
2007-2009	235	-	10	15	20	40	50
2010-2012	150	-	5	240	-	50	430
2013-2015	105	-	10	5	-	70	80
2016-2018	375	-	55	140	-	25	55
2019-2022	85	-	20	35	1,215	80	125
	Industrial						
2007-2009	105	-	125	-	-	-	100
2010-2012	25	-	195	-	-	-	25
2013-2015	50	-	35	-	-	135	55
2016-2018	175	-	15	-	-	-	50
2019-2022	105	-	30	60	85	-	65

Figure 5 below, shows the average land area per worker by reporting area. Land area is identified through the Parcel ID attached to each of the building consents. Again, where there is no land area per worker observed, land area is nil, or employment growth is negative. An irregularly large land requirement is observed for Te Rapa over the period between 2007-2009 where the average commercial land area per worker is estimated at 18,945m^2/MEC. This is largely a function of limited employment growth alongside a significant quantum of consented floorspace. In this case, there may be a time lag in construction of consented space and therefore a lag in employment growth which follows.

Figure 5: Average Land Area (sqm) per Worker

	Te Rapa	Chartwell	Frankton	CBD	Ruakura	Other	Total
	Commercial						
2007-2009	18,945	1,680	40	120	6,375	1,545	2,330
2010-2012	5,160	-	10	345	490	1,920	3,005
2013-2015	1,745	-	225	35	-	3,470	1,555
2016-2018	3,105	-	265	200	-	425	465
2019-2022	535	-	90	25	1,420	2,035	1,160
	Industrial						
2007-2009	435	-	540	-	-	5	475
2010-2012	695	-	330	-	-	-	1,430
2013-2015	1,110	-	310	-	-	750	695
2016-2018	2,195	-	120	-	-	230	975
2019-2022	465	-	335	20	5,305	65	590

The following key points are related to average land area per worker.

- Average land per worker for commercial activities exhibits an overall decline from 2,330m^2/MEC to 1,160m^2/MEC.
- For industrial activities, land requirements vary across the reporting areas and throughout the time periods.
- Current observed average land requirements for Frankton and Te Rapa are 335m^2/MEC and 465m^2/MEC, respectively. The Hamilton City average is inflated by the Ruakura figures, that again are likely to be consented land area ahead of employment occurring along with a propensity for land extensive activities to locate there.

Each of the reporting areas have distinct characteristics which are reflected in differences in floor space and land use requirements. Additionally, different types of commercial and industrial activities have different land requirements. The consenting data is too coarse to allow analysis at that level of detail – however, we believe that this is an area where Councils could carry out ongoing monitoring.

Summary

The HBA process uses a set of space and land conversions to translate employment growth into demand for business floor space and land. The above analysis of recent building consent floor space and land area alongside employment growth helps to identify trends in these space and land requirements in each of the reporting areas. While some anomalies are present in the data, these are identified and discussed. Overall, the findings support the in-use figures relied upon in the HBA.

Appendix 5: Wet Industry ANZSIC06

ANZSIC06 Class Descriptor	ANZSIC06 6D Code
Meat processing	C111100
Poultry processing	C111200
Cured meat and smallgoods manufacturing	C111300
Seafood processing	C112000
Milk and cream processing	C113100
Ice cream manufacturing	C113200
Cheese and other dairy product manufacturing	C113300
Fruit and vegetable processing	C114000
Oil and fat manufacturing	C115000
Soft drink, cordial and syrup manufacturing	C121100
Beer manufacturing	C121200
Spirit manufacturing	C121300
Wine and other alcoholic beverage manufacturing	C121400
Leather tanning, fur dressing and leather product manufacturing	C132000
Log sawmilling	C141100
Wood chipping	C141200
Timber resawing and dressing	C141300
Pulp, paper and paperboard manufacturing	C151000
Petroleum refining and petroleum fuel manufacturing	C170100
Other petroleum and coal product manufacturing	C170900
Industrial gas manufacturing	C181100
Basic organic chemical manufacturing	C181200
Basic inorganic chemical manufacturing	C181300
Synthetic resin and synthetic rubber manufacturing	C182100
Other basic polymer manufacturing	C182900
Fertiliser manufacturing	C183100
Pesticide manufacturing	C183200
Human pharmaceutical and medicinal product manufacturing	C184100
Veterinary pharmaceutical and medicinal product manufacturing	C184200
Cleaning compound manufacturing	C185100
Cosmetic and toiletry preparation manufacturing	C185200
Explosives manufacturing	C189200
Other basic chemical product manufacturing n.e.c.	C189900
Paint and coatings manufacturing	C191600
Glass and glass product manufacturing	C201000
Clay brick manufacturing	C202100
Cement and lime manufacturing	C203100
Ready-mixed concrete manufacturing	C203300
Iron smelting and steel manufacturing	C211000
Iron and steel casting	C212100
Steel pipe and tube manufacturing	C212200
Copper, silver, lead and zinc smelting and refining	C213300
Other basic non-ferrous metal manufacturing	C213900
Non-ferrous metal casting	C214100
Aluminium rolling, drawing, extruding	C214200
Iron and steel forging	C221000

Appendix 6: Sufficiency Detail

HAMILTON CITY

Short Term GFA Capacity, Demand and Sufficiency (2022 – 2025)

Capacity (GFA)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial	Shops--- Retail	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Te Rapa	25,535	7,098	7,098	7,098	25,535	58,969	57,943	59,449	57,943	243,434	57,943	25,535	2,533	0	0	636,111
Chartwell	4,162	970	970	970	4,162	0	0	368	0	0	0	4,162	331	0	0	16,097
Frankton	9,855	2,058	2,058	5,416	9,855	6,306	6,306	7,188	6,306	27,289	6,306	9,855	280	280	0	99,359
CBD	70,751	26,976	26,976	26,976	71,903	4,318	0	165	0	70,751	0	71,903	56	0	0	370,777
Ruakura	0	0	0	47,606	0	180,403	38,188	38,188	180,403	526	38,188	0	0	38,085	0	689,949
Other	136,144	57,149	57,149	57,149	143,869	12,421	1,577	13,447	14,050	130,380	12,006	143,869	10,744	10,429	0	800,381
Total	246,448	94,251	94,251	145,214	255,324	262,417	104,014	118,806	258,702	472,380	114,443	255,324	13,944	48,793	0	2,612,675
Ruakura leasehold delay factor						20%	20%	20%	20%		20%		20%	20%		

Demand (GFA sqm)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial	Shops--- Retail	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Te Rapa	11,727	33	2,901	4,212	435	93,476	43,153	509	13,922	9,454	5,734	1,117	51	0	-92	186,633
Chartwell	114	3	1,095	496	0	557	161	0	40	220	34	235	1	0	0	2,957
Frankton	4,238	9	1,993	374	2	18,260	14,383	34	803	2,418	835	671	22	0	0	44,041
CBD	7,837	200	1,868	789	337	6,317	1,847	69	1,537	5,130	1,596	983	59	0	40	28,608
Ruakura	2,176	33	124	14	34	3,818	2,106	1	500	955	73	1,952	179	0	72	12,035
Other	8,022	263	6,581	5,063	3,262	25,129	6,263	89	4,552	19,950	3,997	20,084	247	0	114	103,616
Total	34,114	541	14,562	10,948	4,070	147,557	67,912	702	21,355	38,127	12,268	25,041	559	0	133	377,889

Sufficiency (X = insufficient)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial	Shops--- Retail	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural
Te Rapa						X									
Chartwell			X			X	X		X	X	X				
Frankton						X	X								
CBD						X	X		X		X		X		X
Ruakura	X	X	X		X					X		X	X		X
Other						X	X								X
Total															X

Medium Term GFA Capacity, Demand and Sufficiency (2022 – 2032)

Capacity (GFA)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial	Shops--- Retail	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Te Rapa	25,535	7,098	7,098	7,098	25,535	58,969	57,943	59,449	57,943	243,434	57,943	25,535	2,533	0	0	636,111
Chartwell	4,162	970	970	970	4,162	0	0	368	0	0	0	4,162	331	0	0	16,097
Frankton	9,855	2,058	2,058	5,416	9,855	6,306	6,306	7,188	6,306	27,289	6,306	9,855	280	280	0	99,359
CBD	70,751	26,976	26,976	26,976	71,903	4,318	0	165	0	70,751	0	71,903	56	0	0	370,777
Ruakura	0	0	0	148,066	0	270,823	128,609	128,609	270,823	526	128,609	0	0	128,505	0	1,204,570
Other	136,144	57,149	57,149	57,149	143,869	12,421	1,577	13,447	14,050	130,380	12,006	143,869	10,744	10,429	0	800,381
Total	246,448	94,251	94,251	245,675	255,324	352,838	194,434	209,226	349,122	472,380	204,863	255,324	13,944	139,214	0	3,127,296
Ruakura leasehold delay factor						20%	20%	20%	20%		20%		20%	20%		

Demand (GFA sqm)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial	Shops--- Retail	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Te Rapa	35,966	104	7,479	12,483	1,286	291,297	151,218	1,167	40,063	30,013	17,273	3,234	175	0	-310	591,448
Chartwell	344	17	3,474	1,640	0	1,654	480	0	133	630	95	765	2	0	0	9,233
Frankton	13,602	41	6,238	863	4	69,533	44,115	113	8,301	9,678	4,128	2,186	58	0	0	158,860
CBD	27,254	497	7,253	3,224	1,380	22,258	6,697	184	5,230	17,558	5,280	3,227	220	0	110	100,371
Ruakura	6,817	161	394	42	97	12,606	6,177	3	1,506	2,999	187	5,754	529	0	191	37,465
Other	24,508	740	22,164	17,370	10,784	76,889	22,351	308	13,923	69,193	10,832	59,157	571	0	292	329,082
Total	108,492	1,560	47,003	35,622	13,552	474,237	231,038	1,775	69,157	130,071	37,795	74,322	1,553	0	283	1,226,459

Sufficiency (X = insufficient)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial	Shops--- Retail	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural
Te Rapa	X		X	X		X	X								
Chartwell			X	X		X	X		X	X	X				
Frankton	X		X			X	X		X						X
CBD						X	X	X	X		X		X		X
Ruakura	X	X	X		X					X		X	X		X
Other						X	X								X
Total						X	X								X

Long Term GFA Capacity, Demand and Sufficiency (2022 – 2052)

Capacity (GFA)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial	Shops--- Retail	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Te Rapa	25,535	7,098	7,098	7,098	25,535	279,346	278,319	59,449	278,319	243,434	278,319	25,535	2,533	0	0	1,517,617
Chartwell	4,162	970	970	970	4,162	0	0	368	0	0	0	4,162	331	0	0	16,097
Frankton	9,855	2,058	2,058	5,416	9,855	6,306	6,306	7,188	6,306	27,289	6,306	9,855	280	280	0	99,359
CBD	70,751	26,976	26,976	26,976	71,903	4,318	0	165	0	70,751	0	71,903	56	0	0	370,777
Ruakura	0	0	0	148,066	0	270,823	128,609	128,609	270,823	526	128,609	0	0	128,505	0	1,204,570
Other	136,144	57,149	57,149	57,149	143,869	12,421	1,577	13,447	14,050	130,380	12,006	143,869	10,744	10,429	0	800,381
Total	246,448	94,251	94,251	245,675	255,324	573,215	414,811	209,226	569,499	472,380	425,240	255,324	13,944	139,214	0	4,008,802
Ruakura leasehold delay factor						20%	20%	20%	20%		20%		20%	20%		

Demand (GFA sqm)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial	Shops--- Retail	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Te Rapa	71,088	305	14,487	15,738	1,729	557,900	297,330	2,094	73,120	66,981	30,034	7,356	517	0	-346	1,138,332
Chartwell	964	47	9,116	4,373	0	4,547	1,631	0	376	1,578	235	2,266	3	0	0	25,137
Frankton	39,671	133	16,836	1,589	7	221,393	108,969	241	23,578	26,067	10,203	6,475	135	0	1	455,298
CBD	78,895	1,312	16,045	4,370	1,871	66,274	19,550	377	14,282	47,605	13,827	9,408	642	0	197	274,655
Ruakura	18,915	716	970	63	147	40,296	16,292	14	4,444	8,381	524	12,297	1,182	0	652	104,893
Other	68,908	1,914	52,997	41,986	28,632	216,263	68,512	952	38,360	178,173	26,662	166,264	1,230	0	696	891,547
Total	278,442	4,427	110,450	68,119	32,386	1,106,673	512,285	3,678	154,160	328,785	81,484	204,067	3,709	0	1,199	2,889,863

Sufficiency (X = insufficient)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial	Shops--- Retail	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural
Te Rapa	X		X	X		X	X								
Chartwell			X	X		X	X		X	X	X				
Frankton	X		X			X	X		X		X				X
CBD	X					X	X	X	X		X		X		X
Ruakura	X	X	X		X					X		X	X		X
Other						X	X		X	X	X	X			X
Total	X		X			X	X								X

Short Term Land Capacity, Demand and Sufficiency (2022 – 2025)

Capacity (land area sqm)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial	Shops---Retail	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Te Rapa	5,067	5,067	5,067	5,067	5,067	79,310	77,257	80,270	77,257	79,310	77,257	5,067	5,067	0	0	506,127
Chartwell	737	737	737	737	737	0	0	737	0	0	0	737	663	0	0	5,821
Frankton	2,324	1,764	1,764	2,324	2,324	8,595	8,595	10,359	8,595	8,595	8,595	2,324	560	560	0	67,276
CBD	13,973	14,302	14,302	14,302	14,302	7,216	0	329	0	13,973	0	14,302	112	0	0	107,111
Ruakura	0	0	0	63,474	0	228,686	50,917	50,917	228,686	173	50,917	0	0	50,779	0	724,550
Other	26,159	30,021	30,021	30,021	30,021	23,757	2,102	25,843	27,049	25,152	22,960	30,021	21,487	20,858	0	345,474
Total	48,259	51,891	51,891	115,925	52,450	347,563	138,871	168,456	341,587	127,202	159,729	52,450	27,887	72,197	0	1,756,359
Ruakura leasehold delay factor						20%	20%	20%	20%		20%		20%	20%		

Demand (land area sqm)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial	Shops---Retail	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Te Rapa	14,659	55	4,836	7,020	621	233,691	107,883	1,198	27,845	15,756	14,336	2,233	85	0	-30,684	399,534
Chartwell	143	5	1,825	827	0	1,393	403	0	81	367	84	469	1	0	0	5,598
Frankton	5,297	15	3,321	623	2	45,651	35,957	80	1,606	4,031	2,088	1,341	36	0	-125	99,924
CBD	9,796	333	3,113	1,314	482	15,792	4,617	162	3,073	8,550	3,990	1,967	99	0	13,273	66,560
Ruakura	2,719	55	207	24	48	9,544	5,264	2	1,001	1,591	181	3,903	298	0	24,025	48,862
Other	10,028	439	10,968	8,438	4,660	62,823	15,658	211	9,104	33,250	9,991	40,167	412	0	37,845	243,993
Total	42,642	902	24,271	18,246	5,814	368,894	169,780	1,653	42,710	63,544	30,670	50,081	931	0	44,333	864,471

Sufficiency (X = insufficient)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial	Shops---Retail	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural
Te Rapa	X			X		X	X								
Chartwell			X	X		X	X		X	X	X				
Frankton	X		X			X	X								
CBD						X	X		X		X				X
Ruakura	X	X	X		X					X		X	X		X
Other						X	X			X		X			X
Total						X	X								X

Medium Term Land Capacity, Demand and Sufficiency (2022 – 2032)

Capacity (land area sqm)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial	Shops---Retail	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Te Rapa	5,067	5,067	5,067	5,067	5,067	79,310	77,257	80,270	77,257	79,310	77,257	5,067	5,067	0	0	506,127
Chartwell	737	737	737	737	737	0	0	737	0	0	0	737	663	0	0	5,821
Frankton	2,324	1,764	1,764	2,324	2,324	8,595	8,595	10,359	8,595	8,595	8,595	2,324	560	560	0	67,276
CBD	13,973	14,302	14,302	14,302	14,302	7,216	0	329	0	13,973	0	14,302	112	0	0	107,111
Ruakura	0	0	0	197,422	0	349,247	171,478	171,478	349,247	173	171,478	0	0	171,340	0	1,581,862
Other	26,159	30,021	30,021	30,021	30,021	23,757	2,102	25,843	27,049	25,152	22,960	30,021	21,487	20,858	0	345,474
Total	48,259	51,891	51,891	249,872	52,450	468,124	259,432	289,017	462,147	127,202	280,290	52,450	27,887	192,758	0	2,613,671
Ruakura leasehold delay factor						20%	20%	20%	20%		20%		20%	20%		

Demand (land area sqm)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial	Shops---Retail	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Te Rapa	44,957	174	12,465	20,805	1,838	728,243	378,044	2,745	80,126	50,021	43,184	6,468	291	0	-103,224	1,266,137
Chartwell	430	28	5,790	2,733	0	4,135	1,200	0	267	1,050	237	1,530	3	0	0	17,402
Frankton	17,003	69	10,397	1,438	6	173,832	110,288	265	16,603	16,130	10,319	4,372	96	0	28	360,845
CBD	34,067	828	12,089	5,374	1,972	55,646	16,742	432	10,459	29,263	13,200	6,454	366	0	36,640	223,531
Ruakura	8,522	268	657	69	139	31,515	15,443	8	3,012	4,999	469	11,508	882	0	63,767	141,257
Other	30,635	1,233	36,940	28,951	15,406	192,222	55,878	726	27,846	115,322	27,080	118,313	951	0	97,260	748,761
Total	135,615	2,600	78,338	59,370	19,360	1,185,592	577,594	4,176	138,313	216,785	94,489	148,644	2,589	0	94,470	2,757,933

Sufficiency (X = insufficient)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial	Shops---Retail	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural
Te Rapa	X		X	X		X	X		X			X			
Chartwell			X	X		X	X		X	X	X	X			
Frankton	X		X			X	X		X	X	X	X			X
CBD	X					X	X	X	X	X	X		X		X
Ruakura	X	X	X		X					X		X	X		X
Other	X		X			X	X		X	X	X	X			X
Total	X		X			X	X			X		X			X

Long Term Land Capacity, Demand and Sufficiency (2022 – 2052)

Capacity (land area sqm)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial	Shops---Retail	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Te Rapa	5,067	5,067	5,067	5,067	5,067	79,310	77,257	80,270	77,257	79,310	77,257	5,067	5,067	0	0	506,127
Chartwell	737	737	737	737	737	0	0	737	0	0	0	737	663	0	0	5,821
Frankton	2,324	1,764	1,764	2,324	2,324	8,595	8,595	10,359	8,595	8,595	8,595	2,324	560	560	0	67,276
CBD	13,973	14,302	14,302	14,302	14,302	7,216	0	329	0	13,973	0	14,302	112	0	0	107,111
Ruakura	0	0	0	63,474	0	228,686	50,917	50,917	228,686	173	50,917	0	0	50,779	0	724,550
Other	26,159	30,021	30,021	30,021	30,021	23,757	2,102	25,843	27,049	25,152	22,960	30,021	21,487	20,858	0	345,474
Total	48,259	51,891	51,891	115,925	52,450	347,563	138,871	168,456	341,587	127,202	159,729	52,450	27,887	72,197	0	1,756,359
Ruakura leasehold delay factor						20%	20%	20%	20%		20%		20%	20%		

Demand (land area sqm)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial	Shops---Retail	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Te Rapa	88,860	509	24,145	26,230	2,470	1,394,750	743,325	4,928	146,239	111,635	75,084	14,712	862	0	-115,473	2,518,275
Chartwell	1,205	79	15,194	7,288	0	11,368	4,079	0	752	2,631	588	4,532	5	0	0	47,719
Frankton	49,589	221	28,060	2,648	10	553,483	272,422	567	47,157	43,444	25,507	12,951	224	0	189	1,036,474
CBD	98,619	2,187	26,742	7,284	2,672	165,686	48,876	887	28,563	79,341	34,568	18,816	1,070	0	65,681	580,992
Ruakura	23,644	1,194	1,616	105	211	100,739	40,730	33	8,887	13,969	1,309	24,595	1,970	0	217,298	436,300
Other	86,135	3,189	88,328	69,976	40,902	540,656	171,280	2,240	76,721	296,955	66,655	332,528	2,050	0	232,055	2,009,669
Total	348,052	7,379	184,084	113,531	46,266	2,766,682	1,280,712	8,654	308,320	547,975	203,710	408,133	6,181	0	399,750	6,629,429

Sufficiency (X = insufficient)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial	Shops---Retail	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural
Te Rapa	X		X	X		X	X		X	X		X			
Chartwell	X		X	X		X	X		X	X	X	X			
Frankton	X		X	X		X	X		X	X	X	X			X
CBD	X		X			X	X	X	X	X	X	X	X		X
Ruakura	X	X	X		X					X		X	X		X
Other	X		X	X	X	X	X		X	X	X	X			X
Total	X		X			X	X			X	X	X			X

Short Term GFA Capacity, Demand and Sufficiency (2022 – 2025)

Capacity (sqm GFA)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Pokeno	18,091	12,061	12,061	12,061	18,091	4,793	4,793	4,793	4,793	59,726	4,793	18,091	4,793	4,793	0	183,732
Tuakau	35,183	23,455	23,455	23,455	35,183	48,116	48,116	28,069	28,069	649,554	28,069	35,183	28,069	28,069	0	1,062,047
Te Kauwhata	15,294	20,392	20,392	20,392	15,294	2,103	2,103	2,103	2,103	26,181	2,103	15,294	2,103	2,103	0	147,960
Huntly	5,059	6,746	6,746	6,746	5,059	4,745	4,745	4,745	4,745	29,629	4,745	5,059	4,745	4,745	0	98,263
Ngaruawahia	1,083	1,444	1,444	1,444	1,083	17,212	17,212	17,212	17,212	154,813	17,212	1,083	17,212	17,212	0	282,882
Raglan	5,929	7,905	7,905	7,905	5,929	2,499	2,499	2,499	2,499	18,869	2,499	5,929	2,499	2,499	0	77,867
Rest of Waikato	5,012	6,683	6,683	6,683	5,012	19,575	19,575	19,575	19,575	84,488	19,575	5,012	19,575	19,575	0	256,596
Total	85,652	78,687	78,687	78,687	85,652	99,044	99,044	78,996	78,996	1,023,260	78,996	85,652	78,996	78,996	0	2,109,347

Demand (sqm)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Pokeno	410	12	275	377	50	4,641	5,169	4	1,736	1,297	882	370	52	0	76	15,351
Tuakau	1,458	121	1,769	2,152	640	9,538	3,482	6	1,882	1,362	981	325	60	0	1,987	25,763
Te Kauwhata	181	5	174	26	21	4,483	3,078	0	1,405	2,301	891	295	83	0	108	13,052
Huntly	251	14	207	75	31	2,387	1,322	1	1,192	1,027	704	958	21	0	-14	8,177
Ngaruawahia	351	8	169	88	110	1,889	690	1	770	923	418	903	21	0	-42	6,299
Raglan	656	14	652	755	1,139	4,749	5,994	0	1,234	995	1,034	1,190	45	0	129	18,585
Rest of Waikato	3,226	20	608	566	113	19,085	20,173	12	3,688	3,070	2,620	2,149	1,947	0	2,478	59,755
Total	6,532	195	3,854	4,039	2,103	46,772	39,909	24	11,907	10,976	7,531	6,189	2,230	0	4,723	146,982

Sufficiency (x=insufficient)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural
Pokeno							X								X
Tuakau															X
Te Kauwhata						X	X								X
Huntly															
Ngaruawahia															
Raglan						X	X								X
Rest of Waikato							X								X
Total															X

Medium Term GFA Capacity, Demand and Sufficiency (2022 – 2032)

Capacity (sqm GFA)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Pokeno	28,694	13,117	13,117	13,117	28,694	16,222	16,222	16,222	16,222	28,694	16,222	28,694	16,222	0	0	251,462
Tuakau	10,040	4,590	4,590	4,590	10,040	38,514	38,514	38,514	38,514	10,040	38,514	10,040	38,514	0	0	285,009
Te Kauwhata	19,014	8,692	8,692	8,692	19,014	1,781	1,781	1,781	1,781	19,014	1,781	19,014	1,781	0	0	112,822
Huntly	3,295	1,506	1,506	1,506	3,295	161	161	161	161	3,295	161	3,295	161	0	0	18,664
Ngaruawahia	4,093	1,871	1,871	1,871	4,093	22,931	51,221	51,221	22,931	4,093	22,931	4,093	22,931	0	0	216,147
Raglan	6,912	3,160	3,160	3,160	6,912	937	937	937	937	6,912	937	6,912	937	0	0	42,749
Rest of Waikato	7,474	3,417	3,417	24,507	7,474	33,351	33,351	33,351	33,351	49,655	33,351	7,474	33,351	0	0	303,522
Total	79,521	36,353	36,353	57,443	79,521	113,897	142,187	142,187	113,897	121,703	113,897	79,521	113,897	0	0	1,230,376

Demand (sqm)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Pokeno	634	11	329	296	100	7,104	10,672	8	4,127	1,917	1,199	1,772	28	0	128	28,325
Tuakau	2,558	149	2,332	2,836	1,893	13,481	5,146	6	2,609	2,064	1,657	3,676	141	0	3,808	42,356
Te Kauwhata	792	95	882	555	69	13,685	9,077	0	3,603	6,354	2,212	703	162	0	192	38,380
Huntly	850	76	958	145	60	5,567	2,671	1	2,874	2,140	1,368	3,632	41	0	-39	20,343
Ngaruawahia	854	33	498	124	140	4,681	1,703	4	2,243	2,339	981	1,923	19	0	-87	15,455
Raglan	1,038	17	806	756	1,220	6,879	7,036	0	2,534	1,859	2,093	2,020	34	0	136	26,430
Rest of Waikato	7,092	53	1,987	1,289	200	35,833	35,485	28	9,046	6,041	4,443	8,806	3,739	0	4,319	118,360
Total	13,818	433	7,791	6,001	3,681	87,229	71,791	49	27,037	22,714	13,952	22,532	4,165	0	8,456	289,649

Sufficiency (x=insufficient)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural
Pokeno															X
Tuakau				X											X
Te Kauwhata						X	X		X		X				X
Huntly						X	X		X		X	X			
Ngaruawahia															
Raglan						X	X		X		X				X
Rest of Waikato	X					X	X					X			X
Total						X									X

Long Term GFA Capacity, Demand and Sufficiency (2022 – 2052)

Capacity (sqm GFA)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Pokeno	15,082	13,110	13,110	13,110	15,082	25,070	25,070	25,070	25,070	15,082	25,070	15,082	25,070	12,685	0	262,764
Tuakau	1,180	4,595	4,595	4,595	1,180	30,310	30,310	30,310	30,310	1,180	30,310	1,180	30,310	30,122	0	230,485
Te Kauwhata	19,784	11,820	11,820	11,820	19,784	1,187	1,187	1,187	1,187	19,784	1,187	19,784	1,187	0	0	121,718
Huntly	2,031	1,437	1,437	1,437	2,031	118	118	118	118	2,031	118	2,031	118	0	0	13,141
Ngaruawahia	1,264	2,218	2,218	2,218	1,264	117,463	117,463	117,463	117,463	1,264	117,463	1,264	117,463	96,686	0	813,173
Raglan	784	1,947	1,947	1,947	784	937	937	937	937	784	937	784	937	0	0	14,599
Rest of Waikato	0	2,587	2,587	23,678	0	514,800	514,800	514,800	514,800	0	514,800	0	514,800	509,475	0	3,627,128
Total	40,124	37,715	37,715	58,806	40,124	689,885	689,885	689,885	689,885	40,124	689,885	40,124	689,885	648,968	0	5,083,009

Demand (sqm)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Pokeno	2,683	41	1,066	1,469	380	29,115	47,278	22	19,965	6,024	3,764	9,006	383	0	350	121,547
Tuakau	7,566	375	5,715	6,265	4,833	38,309	16,301	13	7,465	6,172	5,119	14,586	402	0	12,790	125,911
Te Kauwhata	2,038	130	2,344	803	542	30,772	18,947	0	10,013	15,430	6,278	2,546	771	0	803	91,417
Huntly	2,470	155	2,108	309	127	18,338	9,147	5	8,696	7,536	4,360	10,041	159	0	-146	63,305
Ngaruawahia	4,381	140	3,943	1,396	646	21,901	7,782	22	8,069	7,486	2,942	7,386	134	0	-281	65,947
Raglan	4,644	87	3,535	3,089	4,758	27,909	31,736	0	8,183	6,662	6,644	9,429	172	0	385	107,233
Rest of Waikato	29,546	325	9,215	4,610	482	143,940	121,142	112	39,120	27,005	20,784	28,192	12,894	0	12,227	449,594
Total	53,327	1,253	27,925	17,942	11,768	310,285	252,334	174	101,511	76,315	49,891	81,186	14,914	0	26,127	1,024,953

Sufficiency (x=insufficient)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural
Pokeno						X	X								X
Tuakau	X		X	X	X	X				X		X			X
Te Kauwhata						X	X		X		X				X
Huntly	X		X			X	X		X	X	X	X	X		
Ngaruawahia	X		X							X		X			
Raglan	X		X	X	X	X	X		X	X	X	X			X
Rest of Waikato	X		X		X					X		X			X
Total	X									X		X			X

Short Term Land Capacity, Demand and Sufficiency (2022 – 2025)

Capacity (area sqm)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Pokeno	12,922	12,922	12,922	12,922	12,922	8,929	8,929	8,929	8,929	21,851	8,929	12,922	8,929	8,929	0	161,885
Tuakau	15,357	15,357	15,357	15,357	15,357	100,500	100,500	48,157	48,157	63,514	48,157	15,357	48,157	48,157	5,980	603,423
Te Kauwhata	10,865	10,865	10,865	10,865	10,865	5,490	5,490	5,490	5,490	16,355	5,490	10,865	5,490	5,490	0	119,978
Huntly	3,079	3,079	3,079	3,079	3,079	315	315	315	315	3,394	315	3,079	315	315	0	24,073
Ngaruawahia	494	494	494	494	494	42,937	42,937	42,937	42,937	43,431	42,937	494	42,937	42,937	0	346,954
Raglan	3,186	3,186	3,186	3,186	3,186	1,835	1,835	1,835	1,835	5,021	1,835	3,186	1,835	1,835	0	36,981
Rest of Waikato	4,702	4,702	4,702	4,702	4,702	50,695	50,695	50,695	50,695	55,396	50,695	4,702	50,695	50,695	0	438,469
Total	50,606	50,606	50,606	50,606	50,606	210,700	210,700	158,358	158,358	208,963	158,358	50,606	158,358	158,358	5,980	1,731,764

Demand (sqm)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Pokeno	512	20	458	629	71	11,602	12,923	9	3,471	2,162	2,205	740	87	0	0	34,891
Tuakau	1,823	202	2,949	3,587	914	23,845	8,705	14	3,763	2,270	2,454	650	99	0	0	51,274
Te Kauwhata	226	8	290	43	30	11,209	7,695	0	2,811	3,835	2,228	590	138	0	0	29,104
Huntly	314	24	345	126	44	5,966	3,306	2	2,384	1,712	1,760	1,916	35	0	0	17,934
Ngaruawahia	439	13	281	146	157	4,722	1,725	3	1,540	1,539	1,046	1,807	35	0	0	13,453
Raglan	820	23	1,087	1,258	1,626	11,874	14,985	0	2,468	1,658	2,585	2,380	75	0	0	40,837
Rest of Waikato	4,032	34	1,013	943	162	47,711	50,433	28	7,376	5,117	6,550	4,297	3,245	0	0	130,942
Total	8,166	325	6,423	6,732	3,004	116,929	99,772	55	23,813	18,293	18,827	12,379	3,716	0	0	318,435

Sufficiency (x=insufficient)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural
Pokeno						X	X								
Tuakau															
Te Kauwhata						X	X								
Huntly						X	X		X		X				
Ngaruawahia												X			
Raglan						X	X		X		X				
Rest of Waikato															
Total															

Medium Term Land Capacity, Demand and Sufficiency (2022 – 2032)

Capacity (area sqm)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Pokeno	16,397	16,397	16,397	16,397	16,397	42,356	42,356	42,356	42,356	16,397	42,356	16,397	42,356	0	0	368,912
Tuakau	5,737	5,737	5,737	5,737	5,737	100,558	100,558	100,558	100,558	5,737	100,558	5,737	100,558	0	0	643,505
Te Kauwhata	10,865	10,865	10,865	10,865	10,865	4,651	4,651	4,651	4,651	10,865	4,651	10,865	4,651	0	0	103,964
Huntly	1,883	1,883	1,883	1,883	1,883	420	420	420	420	1,883	420	1,883	420	0	0	15,702
Ngaruawahia	2,339	2,339	2,339	2,339	2,339	59,871	154,173	154,173	59,871	2,339	59,871	2,339	59,871	0	0	564,200
Raglan	3,950	3,950	3,950	3,950	3,950	2,446	2,446	2,446	2,446	3,950	2,446	3,950	2,446	0	0	42,326
Rest of Waikato	4,271	4,271	4,271	74,573	4,271	87,078	87,078	87,078	87,078	74,573	87,078	4,271	87,078	0	0	692,965
Total	45,441	45,441	45,441	115,743	45,441	297,380	391,682	391,682	297,380	115,743	297,380	45,441	297,380	0	0	2,431,574

Demand (sqm)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Pokeno	793	19	548	493	143	17,760	26,681	19	8,254	3,196	2,997	3,543	47	0	0	64,493
Tuakau	3,197	248	3,886	4,727	2,705	33,702	12,866	15	5,218	3,439	4,141	7,352	235	0	0	81,733
Te Kauwhata	990	158	1,470	925	99	34,213	22,693	0	7,206	10,590	5,530	1,405	270	0	0	85,547
Huntly	1,062	126	1,596	241	85	13,918	6,678	3	5,748	3,566	3,419	7,264	69	0	0	43,775
Ngaruawahia	1,068	55	831	206	200	11,702	4,257	10	4,487	3,899	2,452	3,846	31	0	0	33,043
Raglan	1,298	28	1,344	1,260	1,743	17,197	17,591	0	5,068	3,099	5,233	4,040	57	0	0	57,958
Rest of Waikato	8,865	88	3,311	2,148	285	89,581	88,713	67	18,092	10,069	11,108	17,611	6,231	0	0	256,171
Total	17,273	722	12,986	10,001	5,258	218,073	179,478	114	54,073	37,857	34,880	45,063	6,941	0	0	622,720

Sufficiency (x=insufficient)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural
Pokeno															
Tuakau			X	X								X			
Te Kauwhata						X	X		X	X	X				
Huntly			X			X	X		X	X	X	X			
Ngaruawahia										X		X			
Raglan						X	X		X	X	X	X			
Rest of Waikato	X		X			X	X					X			
Total						X						X			

Long Term Land Capacity, Demand and Sufficiency (2022 – 2052)

Capacity (area sqm)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Pokeno	16,387	16,387	16,387	16,387	16,387	65,457	65,457	65,457	65,457	16,387	65,457	16,387	65,457	33,120	0	540,574
Tuakau	5,744	5,744	5,744	5,744	5,744	79,138	79,138	79,138	79,138	5,744	79,138	5,744	79,138	78,649	0	593,682
Te Kauwhata	14,775	14,775	14,775	14,775	14,775	3,099	3,099	3,099	3,099	14,775	3,099	14,775	3,099	0	0	122,023
Huntly	1,797	1,797	1,797	1,797	1,797	308	308	308	308	1,797	308	1,797	308	0	0	14,421
Ngaruawahia	2,773	2,773	2,773	2,773	2,773	306,692	306,692	306,692	306,692	2,773	306,692	2,773	306,692	252,444	0	2,112,004
Raglan	2,434	2,434	2,434	2,434	2,434	2,446	2,446	2,446	2,446	2,434	2,446	2,434	2,446	0	0	31,718
Rest of Waikato	3,234	3,234	3,234	73,536	3,234	1,344,126	1,344,126	1,344,126	1,344,126	73,536	1,344,126	3,234	1,344,126	1,330,222	0	9,558,217
Total	47,144	47,144	47,144	117,446	47,144	1,801,266	1,801,266	1,801,266	1,801,266	117,446	1,801,266	47,144	1,801,266	1,694,434	0	12,972,640

Demand (sqm)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Pokeno	3,354	68	1,776	2,449	544	72,788	118,196	52	39,929	10,040	9,409	18,013	638	0	0	277,255
Tuakau	9,457	626	9,524	10,442	6,904	95,773	40,751	31	14,930	10,287	12,797	29,172	670	0	0	241,366
Te Kauwhata	2,547	216	3,907	1,339	775	76,930	47,367	0	20,026	25,716	15,694	5,092	1,286	0	0	200,895
Huntly	3,087	259	3,514	514	181	45,845	22,868	12	17,393	12,560	10,900	20,082	265	0	0	137,479
Ngaruawahia	5,476	233	6,571	2,327	923	54,753	19,455	51	16,138	12,477	7,356	14,773	223	0	0	140,756
Raglan	5,804	146	5,891	5,148	6,798	69,772	79,341	0	16,366	11,104	16,610	18,857	287	0	0	236,125
Rest of Waikato	36,932	542	15,359	7,683	688	359,851	302,856	264	78,239	45,008	51,961	56,383	21,489	0	0	977,257
Total	66,659	2,089	46,542	29,903	16,812	775,713	630,835	410	203,022	127,192	124,727	162,371	24,857	0	0	2,211,132

Sufficiency (x=insufficient)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural
Pokeno						X	X					X			
Tuakau	X		X	X	X	X				X		X			
Te Kauwhata						X	X		X	X	X				
Huntly	X		X			X	X		X	X	X	X			
Ngaruawahia	X		X							X		X			
Raglan	X		X	X	X	X	X		X	X	X	X			
Rest of Waikato	X		X									X			
Total	X									X		X			

Short Term GFA Capacity, Demand and Sufficiency (2022 – 2025)

Capacity (sqm GFA)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Cambridge-Karapiro	208,024	11,096	11,096	11,096	20,134	43,435	43,435	13,094	48,859	117,422	48,859	20,134	13,094	48,859	38,727	697,362
Te Awamutu-Kihikihi	67,195	11,146	11,146	11,146	20,226	24,803	24,803	1,917	24,803	20,226	24,803	20,226	1,917	24,803	1,917	291,076
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	91,441	3,177	3,177	3,177	259,339	62,014	62,014	62,014	62,014	259,339	62,014	259,339	62,014	62,014	3,497	1,316,587
Rest of Waipa	25,899	0	0	0	0	1,801	1,801	1,057	1,801	0	1,801	0	1,057	1,801	1,057	38,073
Total	392,559	25,419	25,419	25,419	299,699	132,053	132,053	78,082	137,477	396,987	137,477	299,699	78,082	137,477	45,198	2,343,098

Demand (sqm)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Cambridge-Karapiro	1,903	100	1,697	1,302	475	8,676	3,797	43	3,665	3,694	1,507	4,901	147	0	699	32,606
Te Awamutu-Kihikihi	1,202	34	733	1,149	104	7,098	6,134	60	4,753	2,167	936	793	200	0	397	25,761
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	407	4	329	206	475	3,089	3,709	2	1,199	783	430	441	162	0	360	11,597
Rest of Waipa	126	0	39	26	6	950	566	0	285	375	190	225	78	0	461	3,327
Total	3,638	139	2,798	2,683	1,060	19,813	14,205	106	9,902	7,019	3,064	6,360	587	0	1,918	73,291

Sufficiency (x=insufficient)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural
Cambridge-Karapiro															
Te Awamutu-Kihikihi															
Rukuhia-Ngahinapouri-Ohaupo-Pirongia															
Rest of Waipa		X	X	X	X					X		X			
Total															

Medium Term GFA Capacity, Demand and Sufficiency (2022 – 2032)

Capacity (sqm GFA)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Cambridge-Karapiro	673,335	115,767	115,767	115,767	255,644	70,605	70,605	19,304	76,029	352,932	76,029	255,644	19,304	76,029	53,067	2,345,828
Te Awamutu-Kihikihi	396,868	85,943	85,943	85,943	188,519	38,749	38,749	6,279	38,749	188,519	38,749	188,519	6,279	38,749	6,279	1,432,836
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	224,072	15,068	15,068	15,068	372,880	84,903	84,903	84,903	84,903	372,880	84,903	372,880	84,903	84,903	6,359	1,988,598
Rest of Waipa	422,457	0	0	0	0	12,518	12,518	11,775	12,518	0	12,518	0	11,775	12,518	11,775	520,373
Total	1,716,732	216,779	216,779	216,779	817,043	206,775	206,775	122,261	212,199	914,331	212,199	817,043	122,261	212,199	77,479	6,287,635

Demand (sqm)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Cambridge-Karapiro	3,887	210	4,495	2,925	1,064	19,780	12,353	100	7,037	7,907	2,652	9,842	207	0	1,228	73,689
Te Awamutu-Kihikihi	2,349	61	1,784	2,573	229	10,962	8,232	102	6,975	4,041	1,477	2,886	295	0	868	42,835
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	831	6	641	335	649	5,868	7,429	4	2,741	1,639	787	1,956	243	0	747	23,877
Rest of Waipa	350	2	126	64	14	2,521	1,279	1	833	953	262	369	156	0	478	7,408
Total	7,417	280	7,046	5,897	1,957	39,131	29,293	207	17,587	14,540	5,178	15,052	901	0	3,321	147,808

Sufficiency (x=insufficient)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural
Cambridge-Karapiro															
Te Awamutu-Kihikihi															
Rukuhia-Ngahinapouri-Ohaupo-Pirongia															
Rest of Waipa		X	X	X	X					X		X			
Total															

Long Term GFA Capacity, Demand and Sufficiency (2022 – 2052)

Capacity (sqm GFA)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Cambridge-Karapiro	673,335	115,767	115,767	115,767	255,644	70,605	70,605	19,304	76,029	352,932	76,029	255,644	19,304	76,029	53,067	2,345,828
Te Awamutu-Kihikihi	396,868	85,943	85,943	85,943	188,519	38,749	38,749	6,279	38,749	188,519	38,749	188,519	6,279	38,749	6,279	1,432,836
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	224,072	15,068	15,068	15,068	372,880	84,903	84,903	84,903	84,903	372,880	84,903	372,880	84,903	84,903	6,359	1,988,598
Rest of Waipa	422,457	0	0	0	0	12,518	12,518	11,775	12,518	0	12,518	0	11,775	12,518	11,775	520,373
Total	1,716,732	216,779	216,779	216,779	817,043	206,775	206,775	122,261	212,199	914,331	212,199	817,043	122,261	212,199	77,479	6,287,635

Demand (sqm)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural	TOTAL
Cambridge-Karapiro	14,207	757	13,431	8,291	3,630	90,200	61,709	186	29,778	30,469	9,739	34,972	742	0	3,856	301,965
Te Awamutu-Kihikihi	12,121	325	8,821	10,005	927	58,693	44,375	933	31,075	20,713	6,117	14,679	1,302	0	3,735	213,821
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	3,576	25	2,606	1,011	2,159	25,976	34,521	13	11,434	7,033	2,565	11,424	886	0	1,930	105,159
Rest of Waipa	1,415	9	402	162	36	11,273	5,253	1	2,978	3,364	734	1,480	617	0	1,249	28,973
Total	31,319	1,116	25,259	19,469	6,752	186,142	145,858	1,133	75,264	61,579	19,154	62,555	3,547	0	10,770	649,918

Sufficiency (x=insufficient)

NPS-UD Zone	Office---Commercial	Office---Retail	Shops---Commercial/Retail	Shops---Food Service	Accommodation	Ware house	Factory	Yard---Commercial	Yard---Industrial	Other Built---Commercial	Other Built---Industrial	Education	Outdoor---Commercial	Outdoor---Industrial	Outdoor---Rural
Cambridge-Karapiro						X									
Te Awamutu-Kihikihi						X	X								
Rukuhia-Ngahinapouri-Ohaupo-Pirongia															
Rest of Waipa		X	X	X	X					X		X			
Total															

Short Term Land Capacity, Demand and Sufficiency (2022 – 2025)

Capacity (area sqm)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Cambridge-Karapiro	24,648	4,623	4,623	4,623	4,623	113,407	113,407	30,675	119,434	10,650	119,434	4,623	26,051	119,434	92,979	793,233
Te Awamutu-Kihikihi	9,650	4,644	4,644	4,644	4,644	64,759	64,759	9,650	64,759	4,644	64,759	4,644	5,006	64,759	5,006	380,974
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	10,455	1,324	1,324	1,324	101,632	109,439	109,439	110,763	109,439	101,632	109,439	101,632	109,439	109,439	9,131	1,095,847
Rest of Waipa	2,760	0	0	0	0	4,701	4,701	2,760	4,701	0	4,701	0	2,760	4,701	2,760	34,546
Total	47,513	10,591	10,591	10,591	110,899	292,306	292,306	153,847	298,333	116,926	298,333	110,899	143,256	298,333	109,876	2,304,600

Demand (sqm)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Cambridge-Karapiro	13,121	4	3,683	667	192	12,293	8,962	0	6,067	9,155	2,104	15,640	359	0	0	72,247
Te Awamutu-Kihikihi	8,291	1	1,590	589	42	10,057	14,478	0	7,867	5,371	1,307	2,531	490	0	0	52,615
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	2,809	0	715	105	192	4,378	8,755	0	1,984	1,941	600	1,407	396	0	0	23,283
Rest of Waipa	869	0	86	13	2	1,346	1,335	0	471	930	266	716	191	0	0	6,226
Total	25,091	5	6,073	1,374	429	28,075	33,530	0	16,388	17,397	4,277	20,294	1,436	0	0	154,371

Sufficiency (x=insufficient)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural
Cambridge-Karapiro												X			
Te Awamutu-Kihikihi										X					
Rukuhia-Ngahinapouri-Ohaupo-Pirongia															
Rest of Waipa		X	X	X	X					X		X			
Total															

Medium Term Land Capacity, Demand and Sufficiency (2022 – 2032)

Capacity (area sqm)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Cambridge-Karapiro	24,648	4,623	4,623	4,623	4,623	113,407	113,407	30,675	119,434	10,650	119,434	4,623	26,051	119,434	92,979	793,233
Te Awamutu-Kihikihi	9,650	4,644	4,644	4,644	4,644	64,759	64,759	9,650	64,759	4,644	64,759	4,644	5,006	64,759	5,006	380,974
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	10,455	1,324	1,324	1,324	101,632	109,439	109,439	110,763	109,439	101,632	109,439	101,632	109,439	109,439	9,131	1,095,847
Rest of Waipa	2,760	0	0	0	0	4,701	4,701	2,760	4,701	0	4,701	0	2,760	4,701	2,760	34,546
Total	47,513	10,591	10,591	10,591	110,899	292,306	292,306	153,847	298,333	116,926	298,333	110,899	143,256	298,333	109,876	2,304,600

Demand (sqm)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Cambridge-Karapiro	26,807	8	9,757	1,498	431	28,028	29,159	0	11,647	19,599	3,702	31,406	507	0	0	162,550
Te Awamutu-Kihikihi	16,200	2	3,873	1,318	93	15,533	19,431	0	11,545	10,016	2,062	9,208	721	0	0	90,002
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	5,728	0	1,390	172	263	8,315	17,536	0	4,537	4,063	1,099	6,242	594	0	0	49,939
Rest of Waipa	2,414	0	272	33	6	3,572	3,018	0	1,379	2,362	366	1,178	382	0	0	14,982
Total	51,150	10	15,293	3,021	793	55,448	69,144	0	29,108	36,039	7,228	48,035	2,204	0	0	317,474

Sufficiency (x=insufficient)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural
Cambridge-Karapiro	X		X							X		X			
Te Awamutu-Kihikihi	X		X							X		X			
Rukuhia-Ngahinapouri-Ohaupo-Pirongia			X												
Rest of Waipa	X	X	X	X	X	X				X		X			
Total	X		X												

Long Term Land Capacity, Demand and Sufficiency (2022 – 2052)

Capacity (area sqm)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Cambridge-Karapiro	24,648	4,623	4,623	4,623	4,623	113,407	113,407	30,675	119,434	10,650	119,434	4,623	26,051	119,434	92,979	793,233
Te Awamutu-Kihikihi	9,650	4,644	4,644	4,644	4,644	64,759	64,759	9,650	64,759	4,644	64,759	4,644	5,006	64,759	5,006	380,974
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	10,455	1,324	1,324	1,324	101,632	109,439	109,439	110,763	109,439	101,632	109,439	101,632	109,439	109,439	9,131	1,095,847
Rest of Waipa	2,760	0	0	0	0	4,701	4,701	2,760	4,701	0	4,701	0	2,760	4,701	2,760	34,546
Total	47,513	10,591	10,591	10,591	110,899	292,306	292,306	153,847	298,333	116,926	298,333	110,899	143,256	298,333	109,876	2,304,600

Demand (sqm)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural	TOTAL
Cambridge-Karapiro	97,968	28	29,151	4,247	1,471	127,812	145,659	0	49,287	75,522	13,594	111,600	1,816	0	0	658,154
Te Awamutu-Kihikihi	83,588	12	19,146	5,125	376	83,168	104,743	1	51,433	51,339	8,538	46,844	3,186	0	0	457,498
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	24,660	1	5,656	518	875	36,807	81,485	0	18,924	17,433	3,581	36,457	2,167	0	0	228,563
Rest of Waipa	9,759	0	872	83	15	15,974	12,399	0	4,930	8,338	1,024	4,722	1,509	0	0	59,626
Total	215,975	42	54,824	9,973	2,737	263,761	344,286	2	124,573	152,632	26,737	199,623	8,678	0	0	1,403,841

Sufficiency (x=insufficient)

NPS-UD Zone	Office--- Commercial	Office--- Retail	Shops--- Commercial/ Retail	Shops--- Food Service	Accommodation	Ware house	Factory	Yard--- Commercial	Yard--- Industrial	Other Built--- Commercial	Other Built--- Industrial	Education	Outdoor--- Commercial	Outdoor--- Industrial	Outdoor--- Rural
Cambridge-Karapiro	X		X			X	X			X		X			
Te Awamutu-Kihikihi	X		X	X		X	X			X		X			
Rukuhia-Ngahinapouri-Ohaupo-Pirongia	X		X												
Rest of Waipa	X	X	X	X	X	X	X		X	X		X			
Total	X		X				X			X		X			

Appendix 7: Existing Land Demand Sensitivity

Sensitivity analysis was conducted to show sufficiency when all employment increases are assumed to locate on previously vacant land. At present, a fixed proportion (19%) is assumed to be absorbed by gradual intensification and use of existing spaces, reflecting historical patterns of intensification within the existing urban environment. This might occur due to factors such as working from home or more efficient use of business premises. If all demand were instead assumed to be met through consumption of vacant land, the land and space demand would be higher than the base case scenario.

The table below summarises the total business land demand and space demand in Hamilton City. Following that, the sufficiency of capacity tables from Section 7.1 and Section 7.4 are recreated under the sensitivity assumption scenario. Where the sufficiency conclusion now differs from the outcome in the core analysis, the text has been boxed and highlighted. Most of the outcomes remain consistent, though seven of the twelve tables have at least one more area of insufficiency. In general, this tends to be demand that was due to exceed capacity in the medium or long terms, which now exceeds it earlier. Changing these assumptions does not affect any of the total sufficiency conclusions across Hamilton.

Total Business Land Demand by Broad Sector (2022 – 2052, ha)

Broad Sector	Land Demand	Space Demand
Short-Medium term		
Commercial	53	336
Retail	14	87
Industrial	206	840
Tot. Bus. Demand (ha)	**274**	**1,263**
Long Term		
Commercial	145	907
Retail	33	197
Industrial	492	2,001
Tot. Bus. Demand (ha)	**669**	**3,105**

Hamilton City Commercial Land Sufficiency (sqm)

Name	Short Term	Medium Term	Long Term	Short Term Vacant Land (sqm)	Medium Term Vacant Land (sqm)	Long Term Vacant Land (sqm)	Short Term	Medium Term	Long Term
Te Rapa	33,300	105,400	233,000	94,500	94,500	94,500		**Insufficient**	Insufficient
Chartwell	1,000	3,100	9,000	2,200	2,200	2,200		Insufficient	Insufficient
Frankton	10,700	38,300	113,600	15,600	15,600	15,600		Insufficient	Insufficient
CBD	20,800	73,300	213,800	56,500	56,500	56,500		Insufficient	Insufficient
Ruakura	8,300	25,700	66,900	200	200	200	Insufficient	Insufficient	Insufficient
Other	90,100	287,400	812,500	111,400	111,400	111,400		Insufficient	Insufficient
Total	164,100	533,200	1,448,700	280,400	280,400	280,400		Insufficient	Insufficient

Hamilton City Retail Land Sufficiency (sqm)

Name	Short Term	Medium Term	Long Term	Short Term Vacant Land (sqm)	Medium Term Vacant Land (sqm)	Long Term Vacant Land (sqm)	Short Term	Medium Term	Long Term
Te Rapa	12,300	34,500	54,700	15,200	15,200	15,200		Insufficient	Insufficient
Chartwell	2,700	8,800	24,200	2,200	2,200	2,200	Insufficient	Insufficient	Insufficient
Frankton	4,100	12,300	33,200	5,900	5,900	5,900		Insufficient	Insufficient
CBD	4,900	18,800	38,900	42,900	42,900	42,900			
Ruakura	300	1,000	3,100	63,500	197,400	197,400			
Other	20,400	69,100	173,600	90,100	90,100	90,100			Insufficient
Total	44,700	144,500	327,800	219,700	353,700	353,700			

Hamilton City Industrial Land Sufficiency (sqm)

Name	Short Term	Medium Term	Long Term	Short Term Vacant Land (sqm)	Medium Term Vacant Land (sqm)	Long Term Vacant Land (sqm)	Short Term	Medium Term	Long Term
Te Rapa	396,600	1,269,700	2,542,300	396,400	396,400	1,498,300	**Insufficient**	Insufficient	Insufficient
Chartwell	2,000	6,000	18,000	1,400	1,400	1,400	Insufficient	Insufficient	Insufficient
Frankton	88,000	320,800	966,700	45,900	45,900	45,900	Insufficient	Insufficient	Insufficient
CBD	28,600	99,800	300,600	7,700	7,700	7,700	Insufficient	Insufficient	Insufficient
Ruakura	16,800	52,900	165,200	660,900	1,549,500	1,730,300			
Other	101,200	313,900	924,000	144,100	144,100	144,100		Insufficient	Insufficient
Total	633,100	2,063,000	4,916,700	1,256,300	2,144,900	3,427,600			Insufficient

Hamilton City Commercial Floorspace Sufficiency (sqm)

Name	Short Term	Medium Term	Long Term	Short Term GFA Capacity (sqm)	Medium Term GFA Capacity (sqm)	Long Term GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Te Rapa	23,400	72,600	158,200	320,000	320,000	320,000			
Chartwell	600	1,800	5,200	12,500	12,500	12,500			
Frankton	7,500	26,200	77,600	56,900	56,900	56,900			Insufficient
CBD	14,700	50,900	148,100	285,300	285,300	285,300			
Ruakura	5,300	16,100	42,700	500	500	500	Insufficient	Insufficient	Insufficient
Other	52,900	168,600	475,100	554,300	554,300	554,300			
Total	104,400	336,300	906,800	1,229,500	1,229,500	1,229,500			

Hamilton City Retail Floorspace Sufficiency (sqm)

Name	Short Term	Medium Term	Long Term	Short Term GFA Capacity (sqm)	Medium Term GFA Capacity (sqm)	Long Term GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Te Rapa	7,400	20,700	32,800	21,300	21,300	21,300			Insufficient
Chartwell	1,600	5,300	14,500	2,900	2,900	2,900		Insufficient	Insufficient
Frankton	2,400	7,400	19,900	9,500	9,500	9,500			Insufficient
CBD	2,900	11,300	23,400	80,900	80,900	80,900			
Ruakura	200	600	1,900	47,600	148,100	148,100			
Other	12,300	41,500	104,100	171,400	171,400	171,400			
Total	26,800	86,700	196,700	333,700	434,200	434,200			

Hamilton City Industrial Floorspace Sufficiency (sqm)

Name	Short Term	Medium Term	Long Term	Short Term GFA Capacity (sqm)	Medium Term GFA Capacity (sqm)	Long Term GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Te Rapa	161,600	516,300	1,032,900	294,800	294,800	1,176,300		Insufficient	
Chartwell	800	2,400	7,300	700	700	700	**Insufficient**	Insufficient	Insufficient
Frankton	35,400	130,000	391,800	33,000	33,000	33,000	**Insufficient**	Insufficient	Insufficient
CBD	11,800	41,100	123,600	4,500	4,500	4,500	Insufficient	Insufficient	Insufficient
Ruakura	6,900	21,600	67,400	513,500	1,184,300	1,320,000			
Other	41,500	128,600	378,300	74,700	74,700	74,700		Insufficient	Insufficient
Total	257,900	840,100	2,001,400	921,100	1,592,000	2,609,100			

Hamilton City Commercial Land Sufficiency (sqm) plus margin

Name	Short Term	Medium Term	Long Term	Short Term Vacant Land (sqm)	Medium Term Vacant Land (sqm)	Long Term Vacant Land (sqm)	Short Term	Medium Term	Long Term
Te Rapa	39,900	126,500	267,900	94,500	94,500	94,500		Insufficient	Insufficient
Chartwell	1,200	3,700	10,300	2,200	2,200	2,200		Insufficient	Insufficient
Frankton	12,800	46,000	130,600	15,600	15,600	15,600		Insufficient	Insufficient
CBD	25,000	88,000	245,900	56,500	56,500	56,500		Insufficient	Insufficient
Ruakura	10,000	30,900	76,900	200	200	200	Insufficient	Insufficient	Insufficient
Other	108,100	344,900	934,400	111,400	111,400	111,400		Insufficient	Insufficient
Total	197,000	639,900	1,666,000	280,400	280,400	280,400		Insufficient	Insufficient

Hamilton City Retail Land Sufficiency (sqm) plus margin

Name	Short Term	Medium Term	Long Term	Short Term Vacant Land (sqm)	Medium Term Vacant Land (sqm)	Long Term Vacant Land (sqm)	Short Term	Medium Term	Long Term
Te Rapa	14,700	41,300	62,900	15,200	15,200	15,200		Insufficient	Insufficient
Chartwell	3,300	10,600	27,900	2,200	2,200	2,200	Insufficient	Insufficient	Insufficient
Frankton	4,900	14,700	38,200	5,900	5,900	5,900		Insufficient	Insufficient
CBD	5,900	22,600	44,800	42,900	42,900	42,900			**Insufficient**
Ruakura	400	1,200	3,600	63,500	197,400	197,400			
Other	24,500	83,000	199,600	90,100	90,100	90,100			Insufficient
Total	53,700	173,400	377,000	219,700	353,700	353,700			Insufficient

Hamilton City Industrial Land Sufficiency (sqm) plus margin

Name	Short Term	Medium Term	Long Term	Short Term Vacant Land (sqm)	Medium Term Vacant Land (sqm)	Long Term Vacant Land (sqm)	Short Term	Medium Term	Long Term
Te Rapa	475,900	1,523,700	2,923,600	396,400	396,400	1,498,300	**Insufficient**	Insufficient	Insufficient
Chartwell	2,400	7,200	20,800	1,400	1,400	1,400	Insufficient	Insufficient	Insufficient
Frankton	105,600	384,900	1,111,700	45,900	45,900	45,900	Insufficient	Insufficient	Insufficient
CBD	34,300	119,700	345,700	7,700	7,700	7,700	Insufficient	Insufficient	Insufficient
Ruakura	20,100	63,400	189,900	660,900	1,549,500	1,730,300			
Other	121,400	376,600	1,062,500	144,100	144,100	144,100		Insufficient	Insufficient
Total	759,700	2,475,600	5,654,200	1,256,300	2,144,900	3,427,600		Insufficient	Insufficient

Hamilton City Commercial Floorspace Sufficiency (sqm) plus margin

Name	Short Term	Medium Term	Long Term	Short Term GFA Capacity (sqm)	Medium Term GFA Capacity (sqm)	Long Term GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Te Rapa	28,100	87,100	181,900	320,000	320,000	320,000			
Chartwell	700	2,100	5,900	12,500	12,500	12,500			
Frankton	9,100	31,500	89,300	56,900	56,900	56,900			Insufficient
CBD	17,700	61,100	170,300	285,300	285,300	285,300			
Ruakura	6,300	19,400	49,100	500	500	500	Insufficient	Insufficient	Insufficient
Other	63,400	211,000	546,300	554,300	554,300	554,300			
Total	125,300	412,300	1,042,900	1,229,500	1,229,500	1,229,500			

Hamilton City Retail Floorspace Sufficiency (sqm) plus margin

Name	Short Term	Medium Term	Long Term	Short Term GFA Capacity (sqm)	Medium Term GFA Capacity (sqm)	Long Term GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Te Rapa	8,800	24,800	37,700	21,300	21,300	21,300		**Insufficient**	Insufficient
Chartwell	2,000	6,300	16,700	2,900	2,900	2,900		Insufficient	Insufficient
Frankton	2,900	8,800	22,900	9,500	9,500	9,500			Insufficient
CBD	3,500	13,600	26,900	80,900	80,900	80,900			
Ruakura	200	700	2,200	47,600	148,100	148,100			
Other	14,700	49,800	119,800	171,400	171,400	171,400			
Total	32,200	104,100	226,200	333,700	434,200	434,200			

Hamilton City Industrial Floorspace Sufficiency (sqm) plus margin

Name	Short Term	Medium Term	Long Term	Short Term GFA Capacity (sqm)	Medium Term GFA Capacity (sqm)	Long Term GFA Capacity (sqm)	Short Term	Medium Term	Long Term
Te Rapa	193,900	619,500	1,187,900	294,800	294,800	1,176,300		Insufficient	**Insufficient**
Chartwell	1,000	2,900	8,400	700	700	700	Insufficient	Insufficient	Insufficient
Frankton	42,400	156,100	450,600	33,000	33,000	33,000	Insufficient	Insufficient	Insufficient
CBD	14,100	49,300	142,100	4,500	4,500	4,500	Insufficient	Insufficient	Insufficient
Ruakura	8,300	26,000	77,600	513,500	1,184,300	1,320,000			
Other	49,800	154,400	435,100	74,700	74,700	74,700		Insufficient	Insufficient
Total	309,500	1,008,100	2,301,600	921,100	1,592,000	2,609,100			

Appendix 8: 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-UD – National Policy Statement – Urban Development
- 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