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***Housing and Business Development  
Capacity Assessment  
Upper Hutt City Council***

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# Executive Summary

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This report presents the results of the Housing and Business Development Capacity Assessment (HBA) for Upper Hutt City Council. The HBA reports on the demand for, and supply of, residential and business development capacity over the 30 years, from 2017 to 2047.

Like much of the Greater Wellington Region, Upper Hutt has experienced the pressures of housing demand through a high take-up of available housing stock, alongside continued increases in dwelling sale prices and rent prices. Business demand has also been increasing in recent years, with an increasing pressure on, and reutilisation of, industrial land.

Upper Hutt is nestled in the northern proportion of the Hutt Valley, approximately 18kms from the Hutt City CBD and some 30kms from the Wellington City CBD. Urban development largely occupies predominately flat land between the Hutt River and the bush-clad hills bordering the Mangaroa Valley to the south-east. Urban development is therefore constrained by the natural features of the valley.

The CBD and surrounding residential areas are well-served by roading and public transport infrastructure. State Highway 2 runs the length of Upper Hutt, leading on through the Remutaka Pass to South Wairarapa, while the main rail route provides a direct link to Wellington City, Hutt City, and to Featherston and Masterton. Just outside the southern border of the administrative boundary also lies the Haywards Interchange; the interchange between State Highway 2 and 58, providing a connection to Porirua City. Upper Hutt has a variable daily population, with the majority of employed persons commuting outside of the district for employment.

The lifestyle which Upper Hutt provides means that families and older persons have historically been attracted to living here. This, in addition to well-connected infrastructure, means that the demand for housing has typically been for single-level detached dwellings. As a result, the majority of Upper Hutt's existing housing stock matches this typology and has consequently absorbed much of the easily developable land under offer.

The HBA presents an opportunity to evaluate the Upper Hutt housing and business capacity now, and through until 2047. The HBA has sought to conceptualise housing and business demand against feasibly developable land and infrastructure capacity to determine an overall development sufficiency in accordance with the NPS-UDC.

## Residential Demand

UHCC has assessed the demand for residential dwellings using the regionally-adopted methodology of two growth scenarios, as set out in the preceding regional chapter.

The two projections indicate that Upper Hutt can expect to see a population growth of between approximately 9,000 to 12,800 people between 2017-2047, requiring between approximately 4,900 and 5,600 additional dwellings.

A copy of the residential demand methodology is attached as **Appendix 1.1** to this HBA.

## Residential Capacity

Capacity to meet population demands was conceptualised through the assessment of greenfield growth areas (yield and feasibility) and through an assessment of possible infill and/or redevelopment opportunities within established residentially-zoned allotments.

The greenfield assessment used growth areas previously identified within the 2016 UHCC Land Use Strategy and vacant residential sites identified through GIS analysis. Feasibility tests were also conducted using examples of local development to attribute costs (including consenting costs) and likely sale prices using historic sale records and industry-recognised value attributes. Results show that by and large, feasible greenfield yields are matched by those anticipated in the Land Use Strategy, however infill results show there are capacity constraints and development feasibility issues.

## Infrastructure

External reporting completed by Wellington Water Limited (WWL) has evaluated the capacity of infrastructure to cater for the projected residential demand. The evaluation found that there are heavy constraints on wastewater, with limited constraints on potable water, and sufficient stormwater capacity for modelled areas. Constraints identified will inevitably curtail the rate at which development capacity can be enabled and will require careful consideration of how available three waters infrastructure is managed.

A copy of the WWL three waters infrastructure assessment is attached as **Appendix 6.1**.



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The local roading infrastructure and open space was evaluated by UHCC. The roading assessment found that agreed levels of services are generally able to be maintained, with further upgrades required of key infrastructure assets to meet growth pressures. These works have been identified within Council's Infrastructure Strategy 2018-2048, with a monitoring regime in place to ensure levels of service are maintained.

A copy of the UHCC Roothing Infrastructure Assessment is attached as **Appendix 6.2**.

Council's Open Spaces Infrastructure Assessment details current open space resource conditions and a future works programme. Monitoring highlights that customer satisfaction with council open spaces, amenities, and gardens remains high, with at least 95% of respondents being either somewhat satisfied to very satisfied. Neighbourhood analysis at a Census Area Unit level has been completed as part of the 2018 Open Spaces Strategy to assess open space priorities in light of anticipated growth. Parks management intend to be informed by ongoing monitoring to ensure a sufficient level of accessibility to open space networks is achieved.

A copy of the UHCC Open Spaces Infrastructure Assessment is attached as **Appendix 6.3**.

## **Business Demand**

The business demand assessment was completed at a regional scale, incorporating all participating Wellington UDC territorial authorities(149). This provided a projection of both business land demand and floor area demand, by business type.

Results show that demand for business land will increase in the next two years, with demand focussed primarily on industrial land. This reflects the need of industrial land developers to have land which is well-serviced, largely flat, resilient to natural hazards, and appropriately priced. The spike in demand is reflective of the lack of suitable industrial business land across the region.

Demand for health, education, and training, retail, and government land uses are all projected to have a moderate level of demand, remaining steady into 2047. In contrast, while initially only representing a small proportion of demand in the

short term, commercial business land demand is set to increase over the long term, becoming the predominant demand for floor space over the long term, at 60% of all floor area demand.

## **Business Capacity**

The evaluation of business capacity took into account District Plan-enabled infill capacity, redevelopment potential, and the capacity of vacant business land. An evaluation of the feasibility of zoned land was also completed through direct consultation with a panel of local business stakeholders using a multi-criteria analysis approach (MCA).

Reporting shows that while infill development has largely been able to keep up with business demand, there is a dwindling supply of appropriately located business sites and future development of existing parcels will need to make more efficient use of permitted tolerances under the District Plan in order to provide additional floor space supply. MCA panellists also noted that in some cases existing building occupation is a deterrent for further investment and that requirements of some industrial businesses are not adequately captured through zoning.

Overall, panellists found that Upper Hutt was well positioned to meet business demands through a strong labour force; accessible public transport and State Highway network; and provided a good degree of resilience to natural hazards.

## **Next Steps**

HBA reporting for Upper Hutt has revealed both current and future land development constraints for residential and business development.

It is expected that information produced as part of the HBA will be used to inform upcoming reviews of District Plan chapters, Council strategies and policies, and other incentives and public education tools. It remains to be seen whether the Wellington metropolitan area will retain its medium growth classification and whether there will be any supplementary updates to the NPS-UDC. However in its current form, it is anticipated that the results of the next HBA will inform chapters currently under review in the Upper Hutt District Plan.

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149. This however excluded Porirua, who had already pursued business demand reporting due to the development of their District Plan review.

# 1.0 Introduction

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Upper Hutt has been projected to grow by approximately 9,000 to 12,800 people in 30 years, from an estimated base of just over 43,000 people. This growth is estimated to require up to 5,600 dwellings, and given the limits of currently zoned land, it is expected that a review of residential and business zones is likely to be required.

This chapter of the Wellington Region HBA seeks to meet the requirements of the NPS-UDC for Upper Hutt City Council, along-side the overall assessment at the beginning of this report. In particular, this chapter addresses the requirements of Policy PB1 to:

- Ensure that at any one time there is sufficient housing and business land development capacity available according to the following time periods:

<b>Short Term</b> <i>Between 0 to 3 years</i>	Development capacity must be feasible, zoned and serviced with development infrastructure.
<b>Medium Term</b> <i>Between 3 to 10 years</i>	Development capacity must be feasible, zoned and either: <ul style="list-style-type: none"><li>• Serviced with development infrastructure, or</li><li>• The funding for the development infrastructure required to service that development capacity must be identified in a Long Term Plan required under the Local Government Act 2002.</li></ul>
<b>Long Term</b> <i>Between 10 to 30 years</i>	Development capacity must be feasible, identified in relevant plans and strategies, and the development infrastructure required to service it must be identified in the relevant Infrastructure Strategy required under the Local Government Act 2002.

## 2.0 Existing Policy Context

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### 2.1 Upper Hutt District Plan

The Upper Hutt District Plan was made operative in 2004. The Plan is the means by which Council sets land use and subdivision standards, largely adopting a framework of land zoning to control the spatial distribution of land development.

The District Plan reflects the commonly held values associated with Upper Hutt, placing a high degree of value on amenity and established character, including its natural surroundings. Development opportunities are guided by the objectives and policies of the plan, and met through the application of District Plan rules.

UHCC is continually reviewing the District Plan through a rolling review process, with each chapter or topic being reviewed independently. Council has a number of plan changes which are currently being developed, most notably of which is the review of its Rural and Residential chapters as a combined review. This review is currently underway and is anticipated to be fully notified in 2022, with the HBA providing a valuable input into the evaluation of future policy changes.

### 2.2 Land Use Strategy

Council adopted the Upper Hutt Land Use Strategy in September 2016. The strategy sets Council's growth agenda from 2016-2043 through four core priorities, being: the economy; environment; community and housing; and movement and infrastructure. The purpose of the strategy is to detail how Council intends to manage and cater for growth. In this respect, the Land Use Strategy evaluates what the likely demands will be on housing and the amount of land that will be required to service this demand. The strategy predicts Upper Hutt will require between an additional 3,960 and 4,500 dwellings between 2013 and 2043.

The three mechanisms used to cater for demand are: urban infill; intensification; and edge expansion. The strategy identifies a number of areas that it considers suitable for intensification, as well as areas surrounding established urban areas potentially suitable for greenfield development. The strategy identifies four greenfield sites, which are estimated to yield a total of up to 2,680 allotments.

### 2.3 Open Space Strategy

Council adopted its Open Spaces Strategy in 2018; giving effect to commitments in the Land Use Strategy. Upper Hutt has a high proportion of parks and open space, accounting for 70% of all Regional Parks in the Greater Wellington Region. The strategy seeks to provide an overarching framework and strategic direction for public parks and open space over the next 10 years. Development of the strategy is also recognition of ongoing growth pressures and its intention is to retain easy access for people to open space networks.

It is intended that any works identified within the Strategy will be specifically programmed through council's Long Term Plan and ongoing operations and asset management.

## 3.0 Current Housing Demands, Historic Housing Consenting & Sales

The 2013 Census results show that Upper Hutt stands out regionally from the Greater Wellington Region as having higher proportions of single detached dwellings, with lower proportions of medium or higher density living<sup>(150)</sup>. This preference for low density typologies is also reflected in household type statistics, where almost 70% of households in 2013 are identified as a 'one family household', highlighting the desirability of larger family homes in Upper Hutt.

### 3.1 Residential property sales

As part of HBA reporting, UHCC have sought to collate historic sales information for both residential and business properties. Sales data was provided by Quotable Value Limited (QV), through Council's Rating Department. A summary of results for residential properties is provided below:

#### Number and Price of Residential Properties Sold in Upper Hutt : 2006-2017

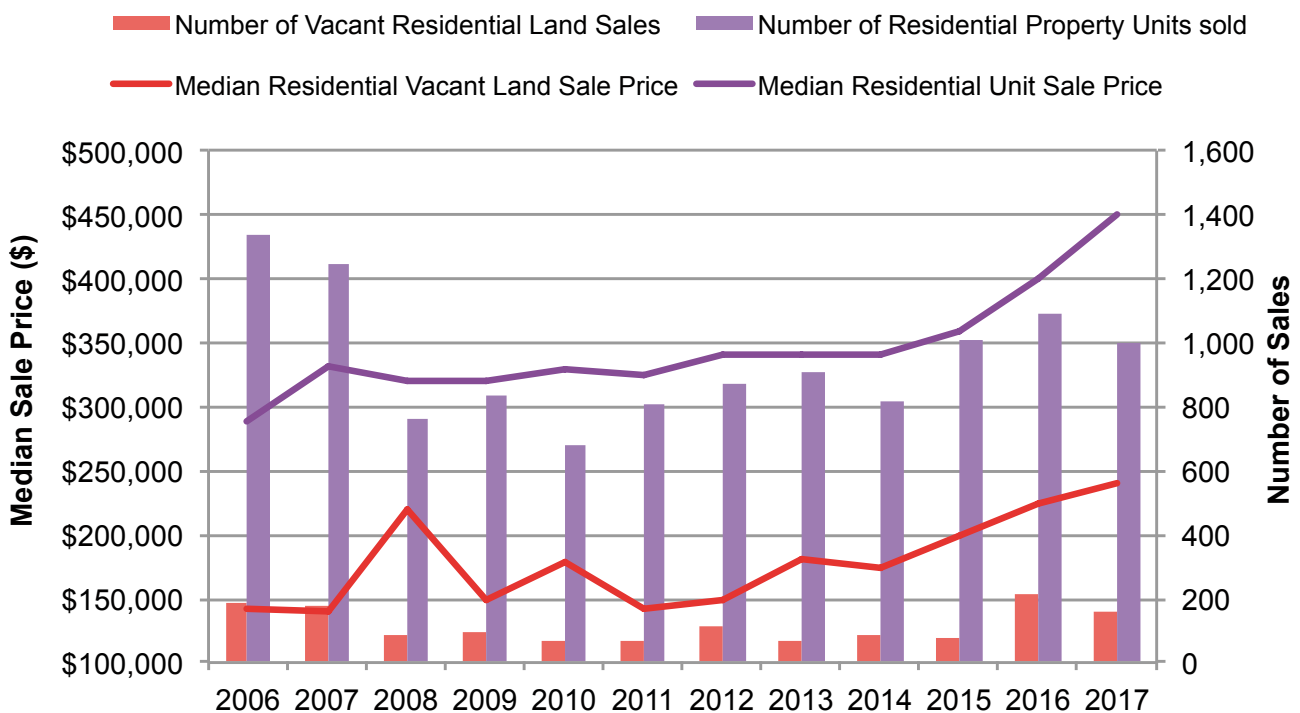


Figure 6.1. Number and price of residential properties sold in Upper Hutt between 2006 and 2017

It should be noted that results have been expressed in 'units' as it was found that a single sale can relate to multiple dwellings or properties (for example, multi-unit complexes for business or residential use). Results were then categorised into residential or business properties according to the QV property description.

The above results show there is somewhat of a correlation between the number of properties sold and the average price of property. For example, in the period from 2006 to 2008, there was an 11% increase in median residential sale price, with a 43% decrease in the number of residential properties being sold. Similarly, in the period from 2015 to 2017 there was a 25% increase in median residential sale price, with a 1% drop in the number of units being sold.

150. StatsNZ data presented by Forecast i.d <https://profile.idnz.co.nz/upper-hutt/dwellings>



This potential uptake in residential property demand is reflected in the spike of vacant residential land sale price, which over the same period, increased by just over 37%. These results motivated UHCC to evaluate the overall net change to residential property and vacant land prices since the beginning of the assessment period. These are illustrated below:

### Cumulative net price change since 2006 for Residential Property in Upper Hutt

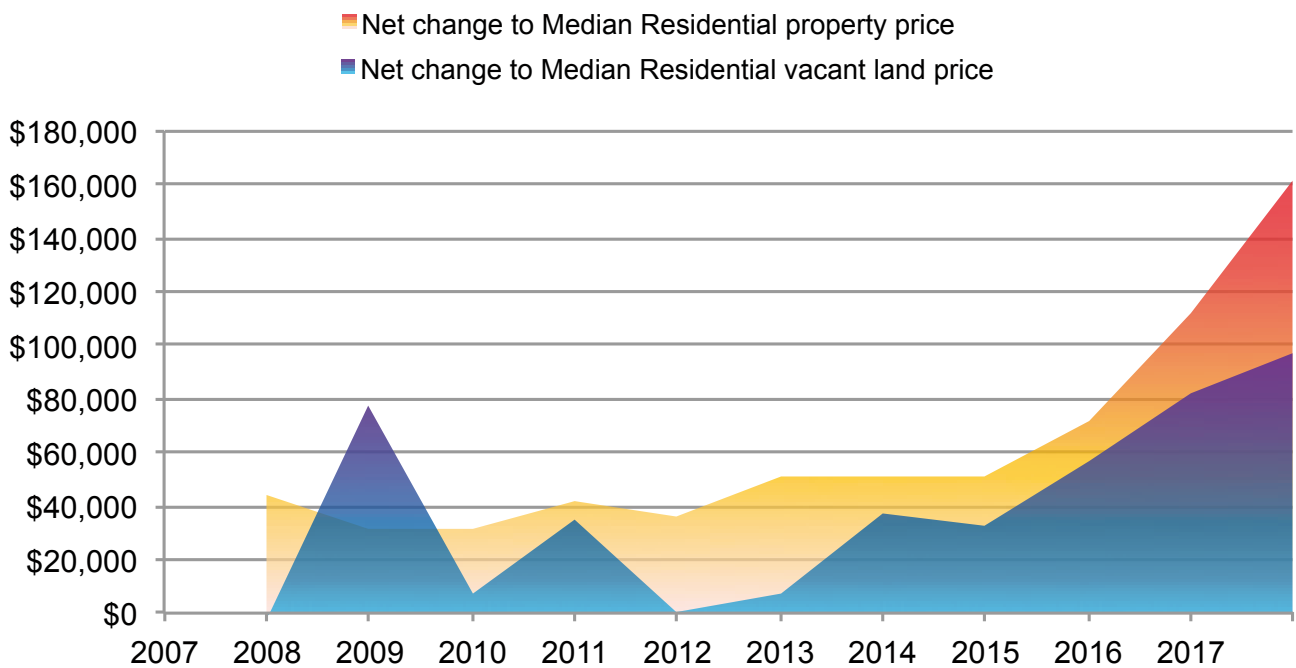


Figure 6.2. Cumulative net price changes since 2006 for residential property in Upper Hutt

Net price changes post-2008 up until 2015 are reflective of wide-spread economic conditions following the Global Financial Crisis (GFC). The net change to median sale prices following 2015 are consistently positive, increasing by over \$100,000 for occupied residential properties.

When analysing housing typologies, the number of units and apartments sold is slowly increasing. Between 2008 to 2012 a yearly median of 18 units were sold, however over the following five years the number of units sold grew to a yearly median of 49, an increase of over 170%. These detailed are illustrated below.

### Residential dwelling sales: typologies of houses sold from 2006-2017

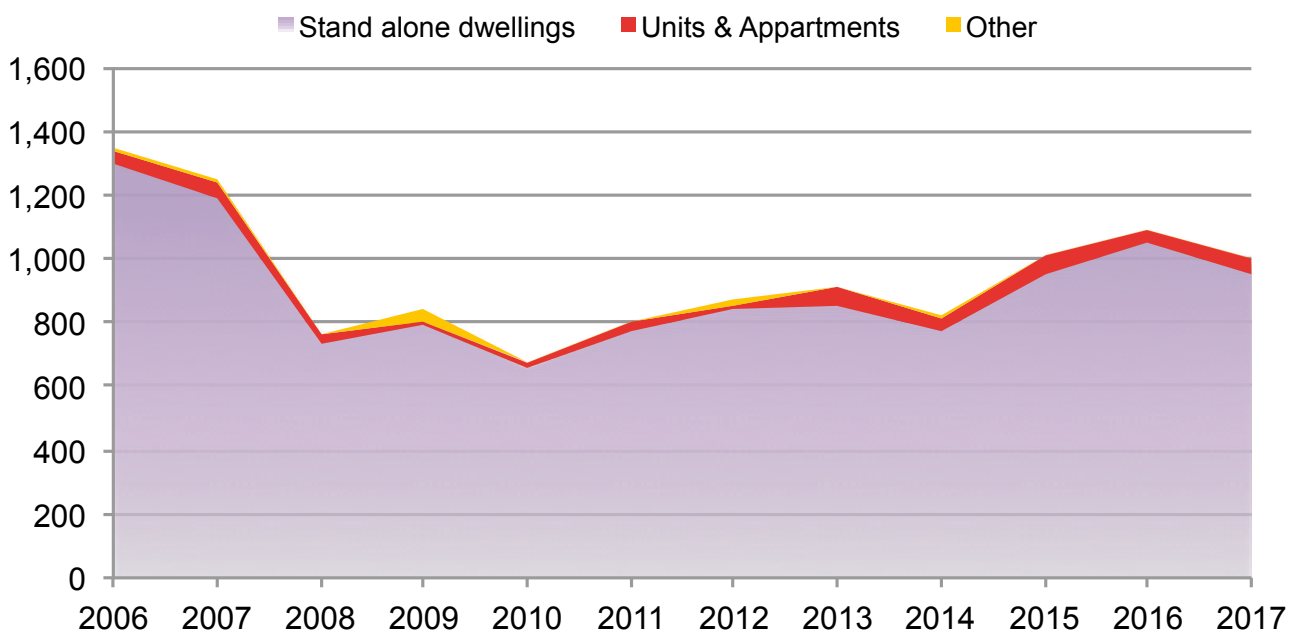


Figure 6.3. Typologies of houses sold in Upper Hutt between 2006 and 2017

### 3.2 Business property sales

Business property sales over the last 12 years have been far more sporadic. The following two figures illustrate the number of sales for occupied business and business land, median prices, as well as the number of sales for different business types.

The data shows that median sale prices over this period largely remain steady, with a median overall sale price per unit of \$396,000 and some moderate fluctuations in price over the period of about \$100,000 either way. As with residential sales data, the number of business units sold is also reflective of economic conditions; with yearly business unit sales of at least 80 pre-GFC and a low of 15 sales in 2010. Sales increase from 2013 onwards, with sales of between 35 to 51 per year.

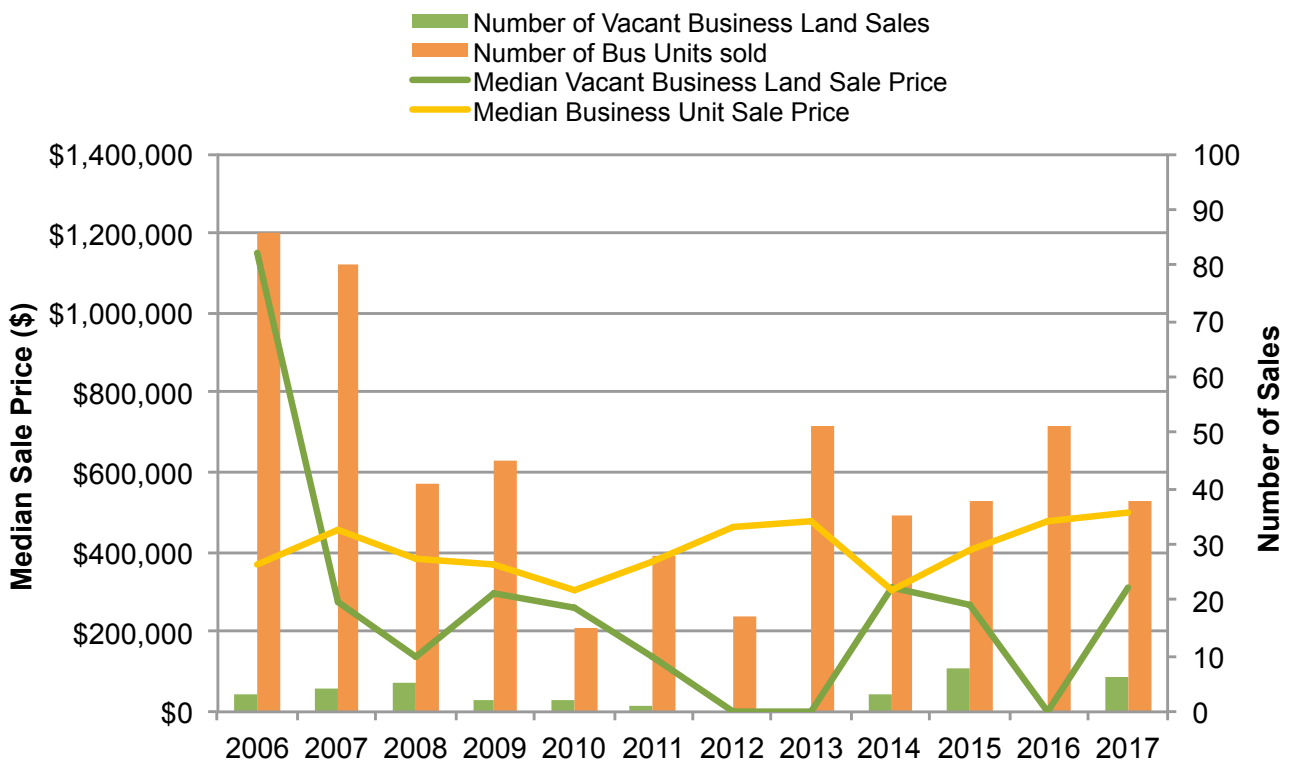
Business unit typologies over this period do not appear to follow a consistent trend, being highly variable across the years. The median number of unit sales per year for each typology is as follows:

Business Typology	Median Yearly Sales
Retail	7
Commercial	16
Industrial	12
Other	4

**Table 6.1.** Median yearly business unit sales by typology

As can be seen, commercial and industrial property sales stand out for Upper Hutt. Commercial property sales peaked in 2007 (43 units sold), and industrial property sales peaked in 2009 (31 units sold).

### Number and Price of Sold Business Properties in Upper Hutt: 2006-2017



**Figure 6.4.** Number and price of sold business properties in Upper Hutt between 2006 and 2017

### Number of Business Units Sold by Type, showing median price: 2006-2017

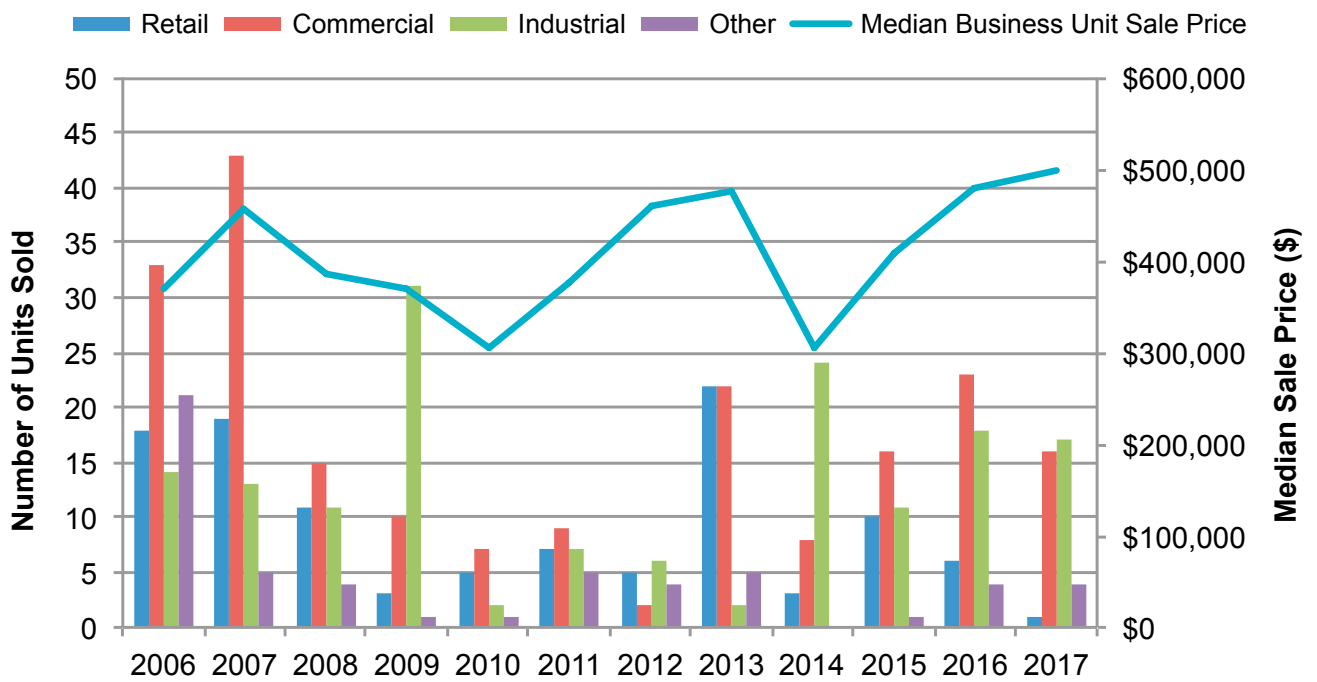


Figure 6.5. Number of business units sold by type, with median price, in Upper Hutt between 2006 and 2017

### 3.3 Consent History in Upper Hutt

Consents issued and certified<sup>(151)</sup> relative to population growth between 2007 to 2017 have also been assessed. Over this period, UHCC issued a total of 2,368 resource consents and issued and certified a total of 7,552 building consents. The median number of resource consents received per year was 179, of which 18.5% were for subdivision consents – creating a median of 135 net new lots per year. For building consents, there was a median of 586 building consents issued and certified per year, with about 20% of these being for new dwellings<sup>(152)</sup>.

Conversely, over this same period the population of Upper Hutt had a median growth rate of 300 persons per year<sup>(153)</sup>. While this growth rate equates to a rate of 0.75% (median) annually, the median growth rate since 2013 has been almost double, at 1.31% annually.

These overall results are summarised in the figure below.

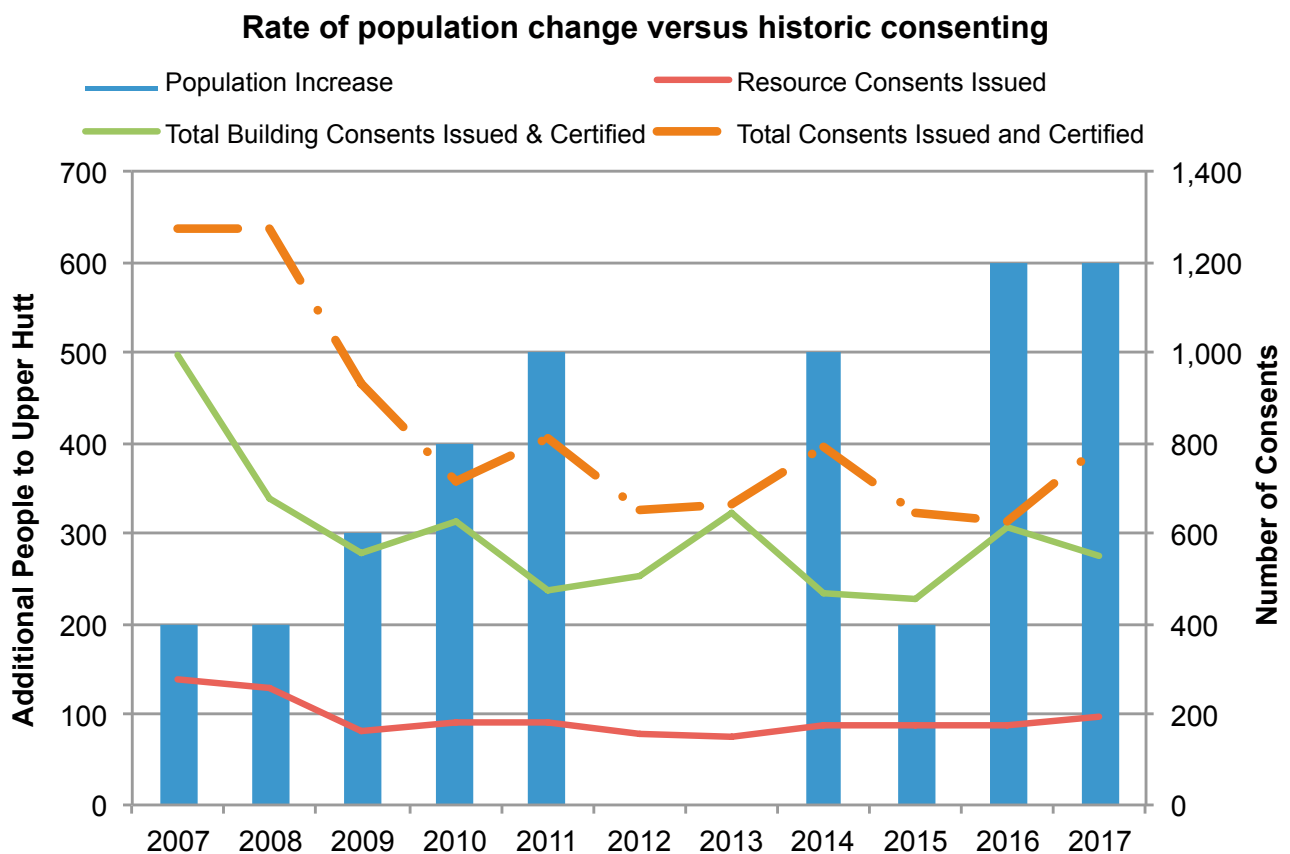


Figure 6.6. Rate of population change versus historic consenting in Upper Hutt between 2006 and 2017

151. A Code Compliance Certificate Issued.

152. Note that a single building consent (or certification) may be for multiple units, and is therefore not necessarily reflective of the number of dwellings created when assessing consenting activity for new dwellings.

153. Statistics New Zealand historic sub-national population estimates.



With this information alone it is difficult to estimate whether the level of consent activity has sufficiently accommodated population growth, however it is evident that the overall rate of consenting has not historically correlated to the rate of population growth. This also indicates that pre-GFC rates of consenting were overall much higher than what Upper Hutt is currently experiencing - down over 40%.

### Upper Hutt subdivision consent activity relative to population growth: 2007-2017

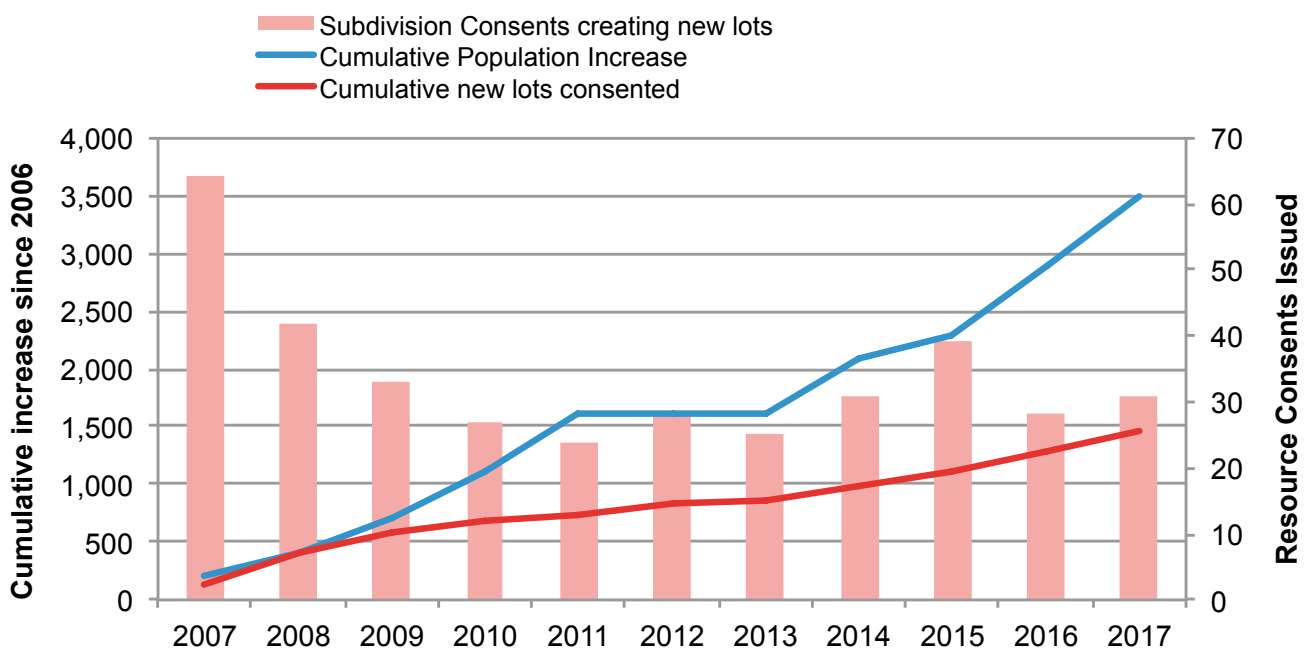


Figure 6.7. Upper Hutt subdivision activity relative to population growth between 2006 and 2017

In terms of understanding any potential capacity 'gap', there needs to be consideration for the growth of population and potential supply over time. This is because, as indicated above, there can be periods where a surplus is generated when consenting outstrips population growth (e.g. pre-GFC), and over time population growth can outstrip consenting (e.g. post-GFC). Work has therefore been undertaken to conceptualise cumulative changes in population and consenting since 2006 to determine the net effects of rises and falls in population growth and consenting.

### Upper Hutt new dwelling building consent activity relative to population growth: 2007-2017

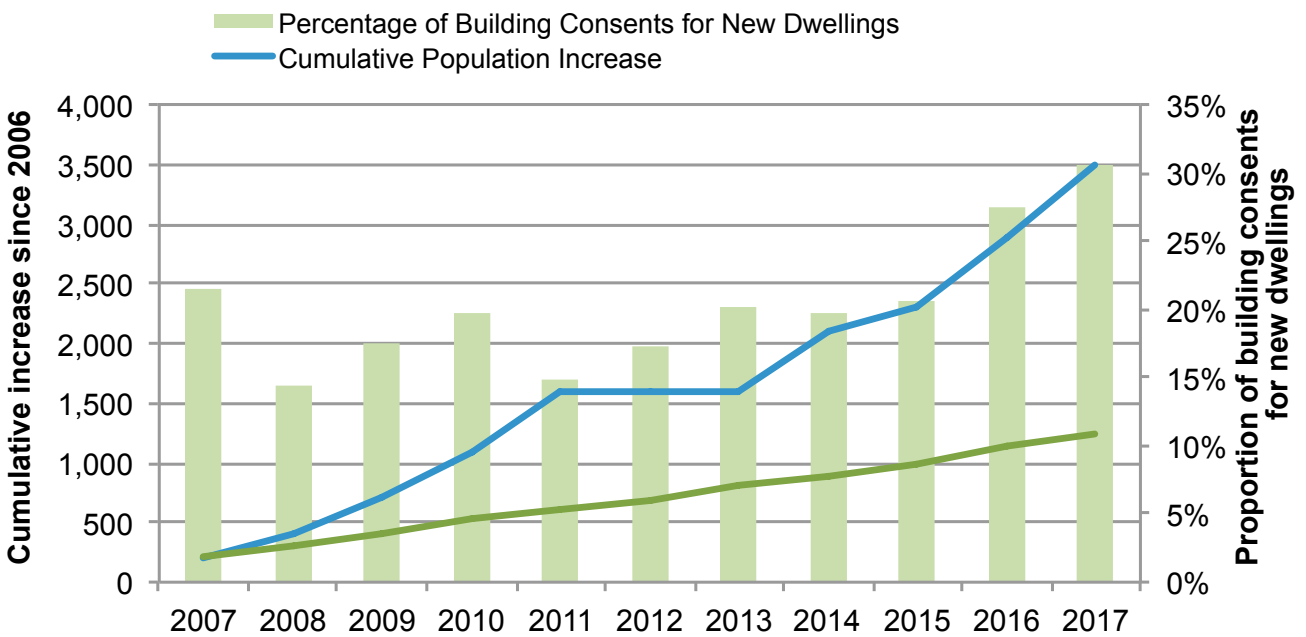
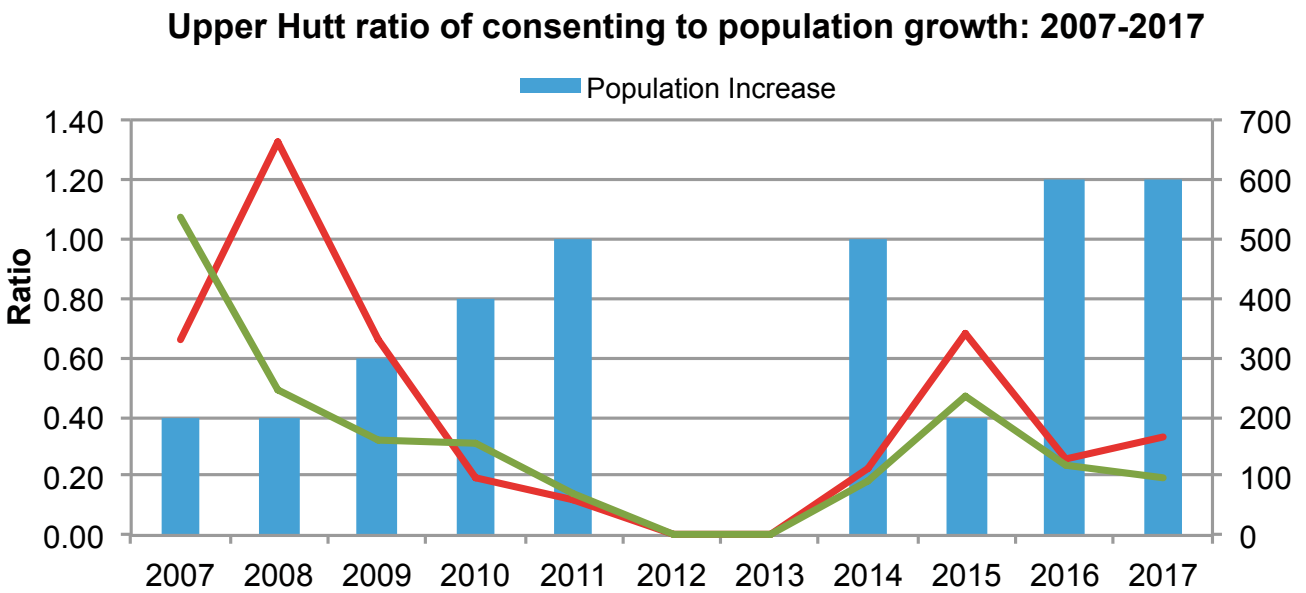


Figure 6.8. New dwellings building consent activity relative to population growth in Upper Hutt between 2006 and 2017

Both cumulative analyses of new dwelling consents and subdivision consents show a growing divide between population and consenting figures. Encouragingly however, the proportion of subdivision consents and new dwelling consents has been increasing in recent years. These proportional changes are best reflected in the ratio of consents to population increase, as shown below.

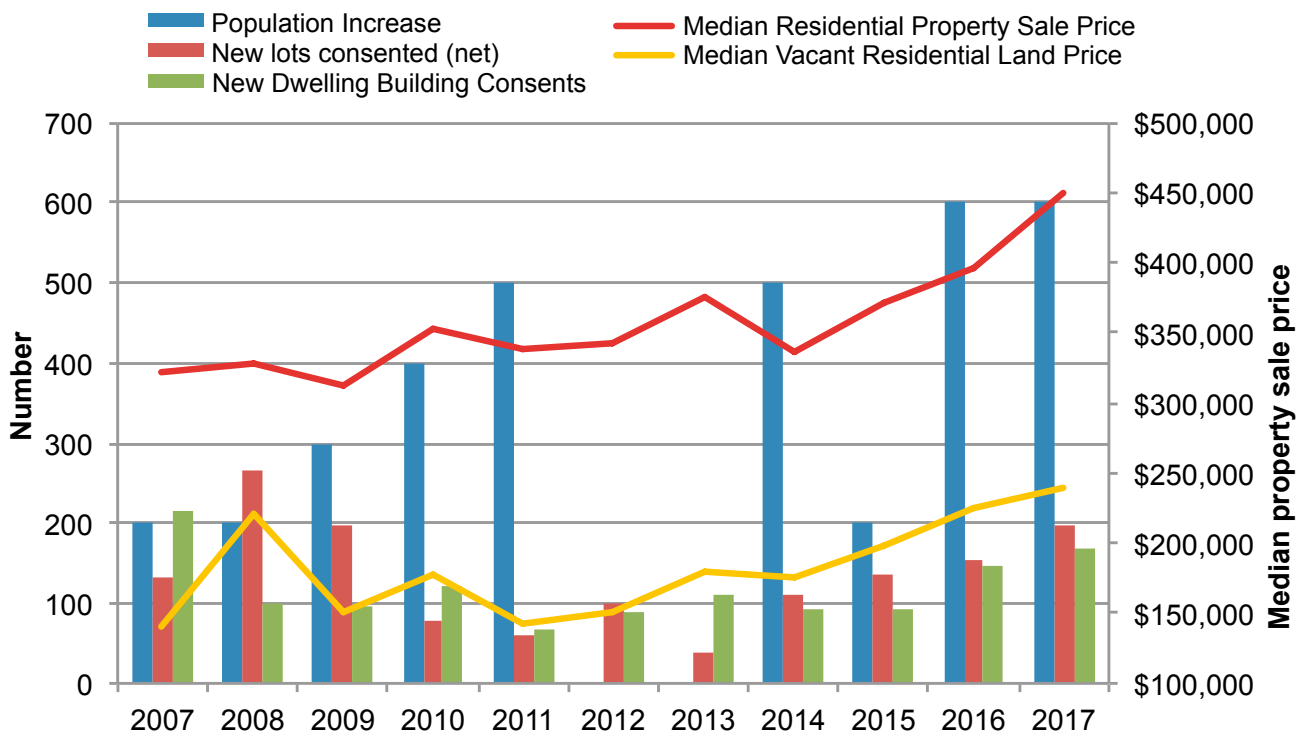


**Figure 6.9.** Ratio of consenting relative to population growth in Upper Hutt between 2006 and 2017

### 3.4 Overall property sales and consenting conclusions

The overall picture of consenting activity, sales, and population increase is provided below.

#### Overall Upper Hutt consenting, population change, and median residential property and land price



**Figure 6.10.** Overall consenting and sale price activity in Upper Hutt relative to population growth between 2007 and 2017

The overall conclusion from the analysis of sales and rates of consenting, in light of population growth, highlights:

- There has been continued high population growth since 2013;
- Rates of population growth have coincided with a marked increase in median sale prices for residential properties, with little change to the average sale price of business properties;
- Consenting activity experienced in 2006 to 2008 have yet to be realised again;
- There appears to be an inverse relationship between rates of consenting and the rate of population growth in the most recent years; and

- Since 2006, there has been a strong net increase to residential property sale prices across Upper Hutt.

Inferences from the above indicate that while high levels of consenting activity and moderate price changes have been experienced historically, the economic downturn experienced after the GFC created an unfavourable development environment, drastically reducing development activity. Despite this downturn, soon after the GFC, population figures began to rise, leaving developments to fill a void left by years of under investment.

It is interesting to track numbers of employed persons in Upper Hutt against the number of consents for new dwellings to show how economic activity and development activity were related.

### Relationship between employment and new dwelling Building Consents: 2006-2017

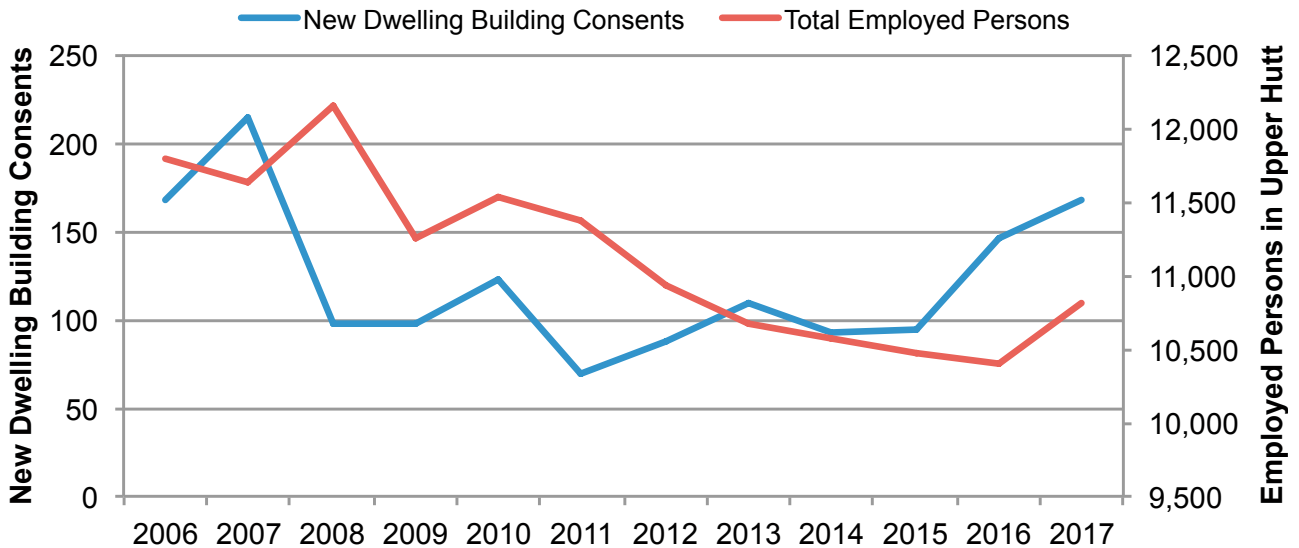


Figure 6.11. Relationship between employment and new dwelling building consents Upper Hutt between 2006 and 2017

There is also a relationship between the Regional Gross Domestic Product rates (RGDP)<sup>(154)</sup> and the average value of building consent activity, where the average value of building consents corresponds with the RGDP over the 2006 to 2017 period.

### Value of Upper Hutt Building Consents compared to Regional GDP (2006 - 2017)

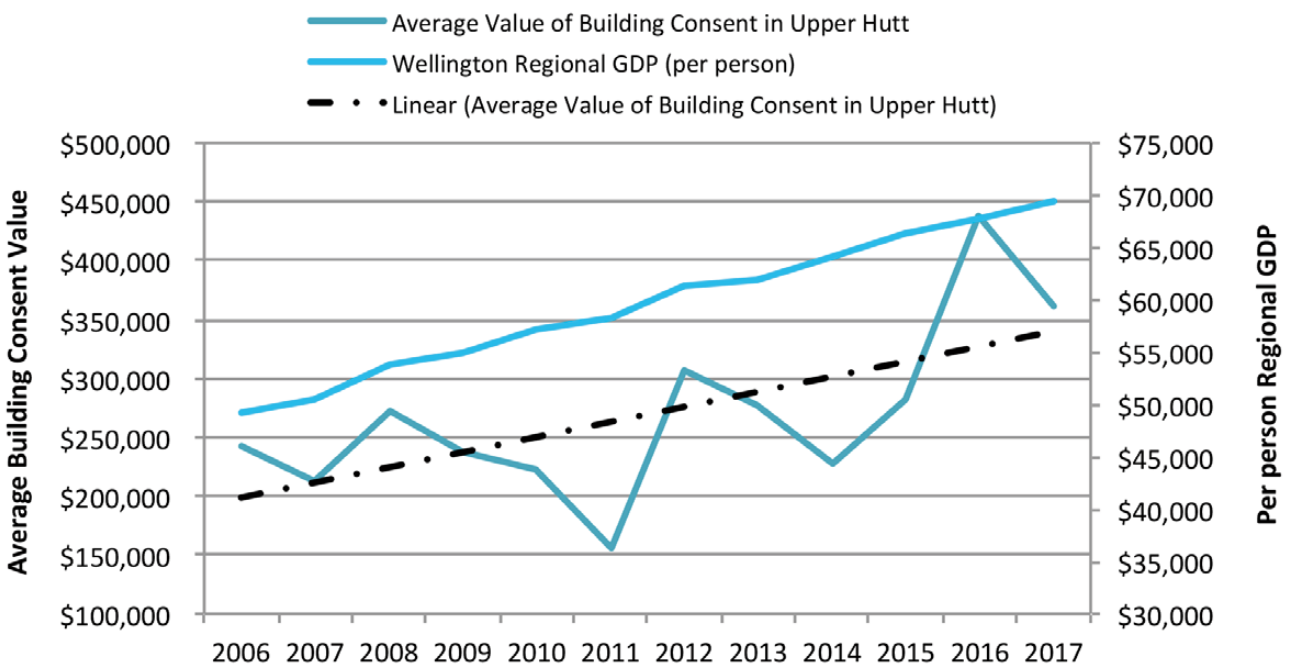


Figure 6.12. Value of Upper Hutt building consents compared to regional GDP between 2006 and 2017

154. Retrieved from: <https://www.stats.govt.nz/information-releases/regional-gross-domestic-product-year-ended-march-2018>



# 4 Monitoring

Policy PB2 of the NPS-UDC requires that the HBA considers information about demand including from the monitoring of market indicators. The following sections outline a range of relevant indicators. A subsequent discussion considers the implications of these indicators and other monitoring undertaken by UHCC under PB6 of the NPS-UDC.

## 4.1 Development Trends - Market Indicators

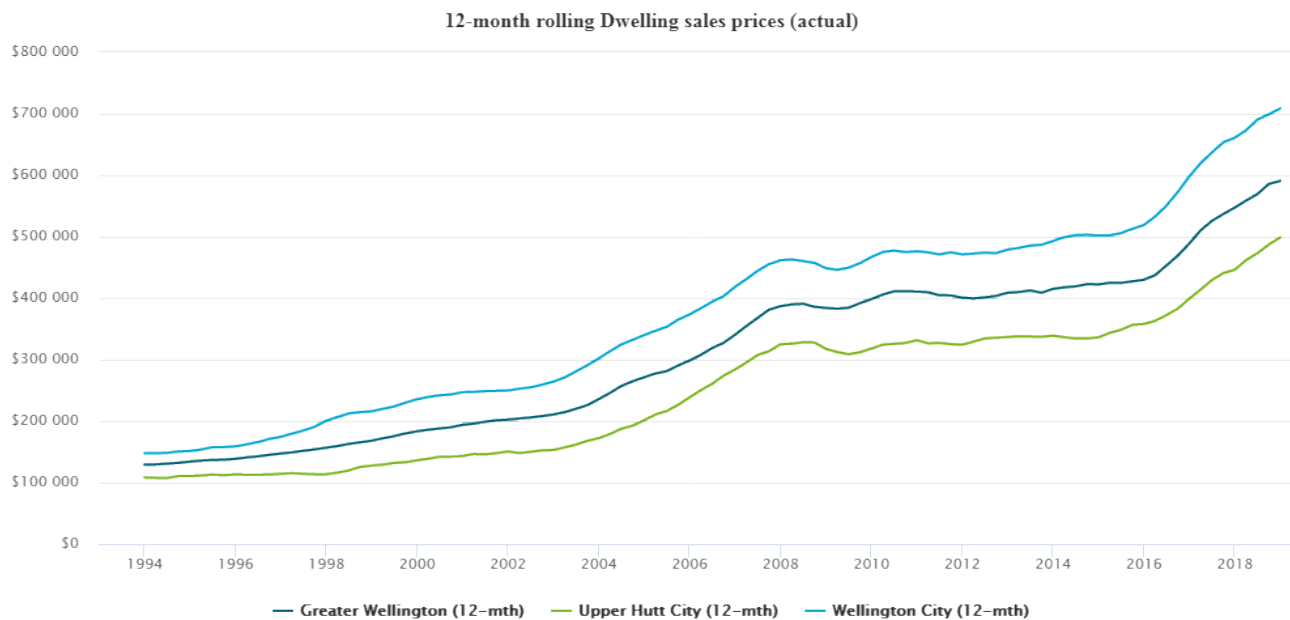
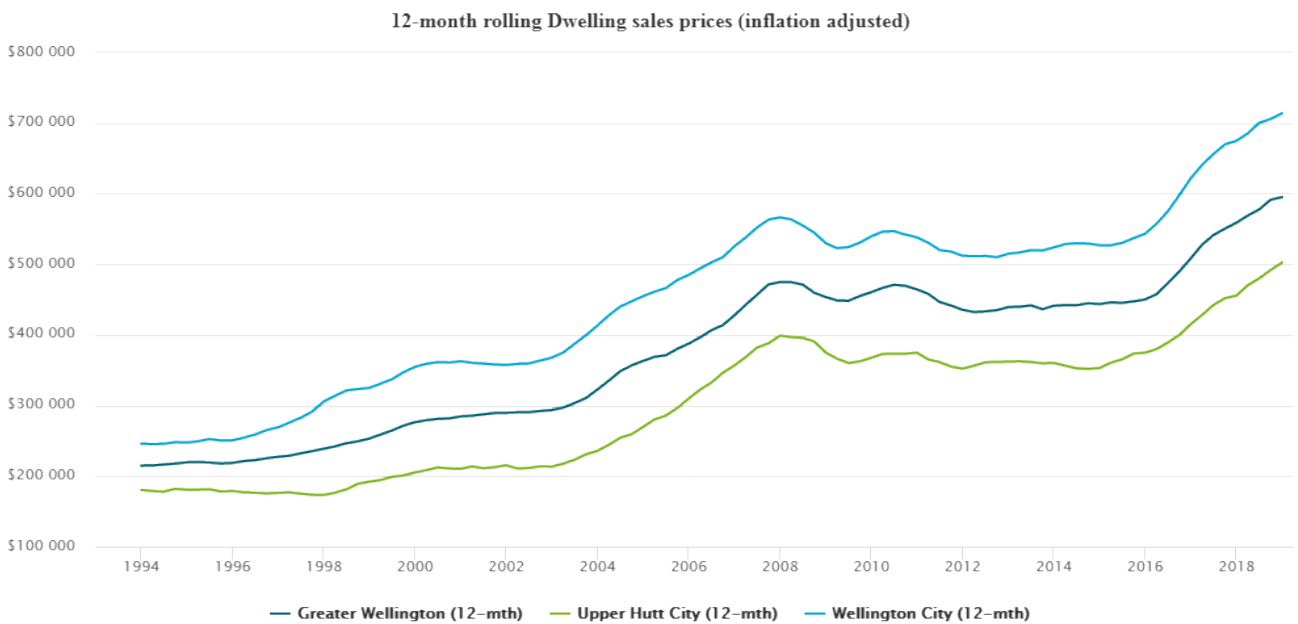


Figure 6.13. Median residential dwelling sale prices for Upper Hutt, Wellington City, and the Greater Wellington Region. Source: MBIE<sup>(155)</sup>

155. This indicator shows the median prices of residential dwellings sold in each quarter. This median price series is not adjusted for size and quality of dwellings. Prices are presented in nominal terms and have not been adjusted for inflation. Retrieved from: <https://mbienz.shinyapps.io/urban-development-capacity/>

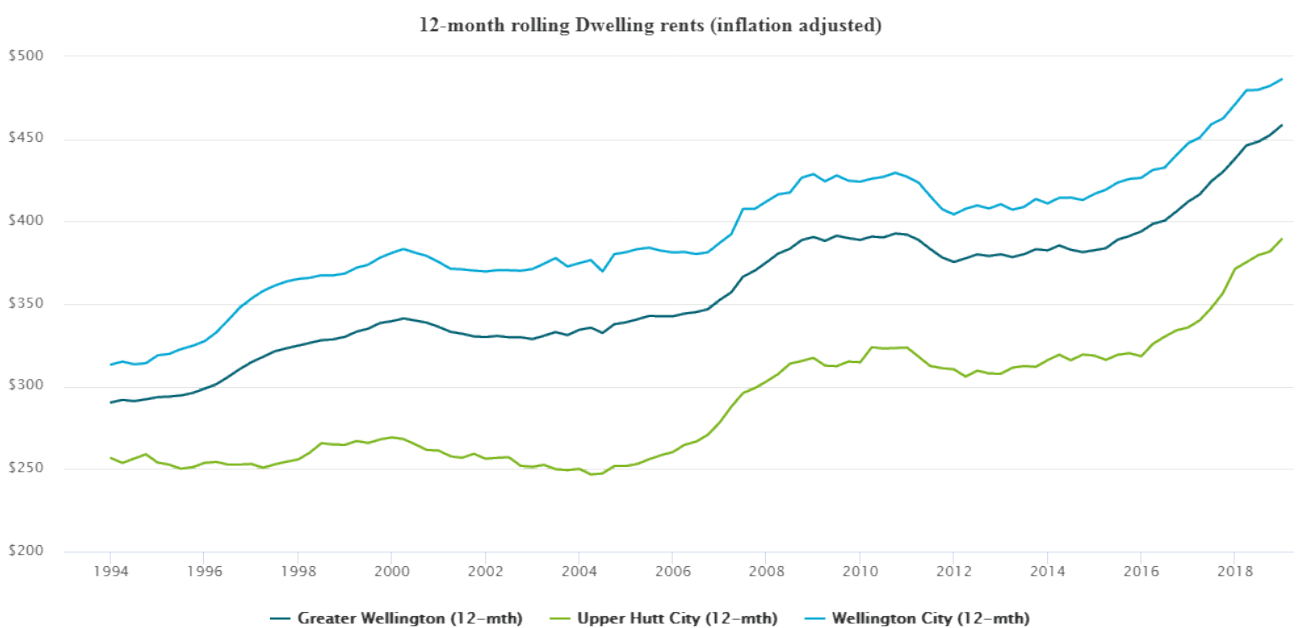


**Figure 6.14.** Median residential dwelling inflation-adjusted sale prices for Upper Hutt, Wellington City, and the Greater Wellington Region. Source: MBIE

The above highlights the integration of the regional housing market and how related prices are across the region. While prices remained relatively steady from 2010 to 2014, from 2015 onwards prices across the region rose significantly. This increase aligns with price increases identified earlier in this chapter, as well as the increase in construction of new dwellings in Upper Hutt.

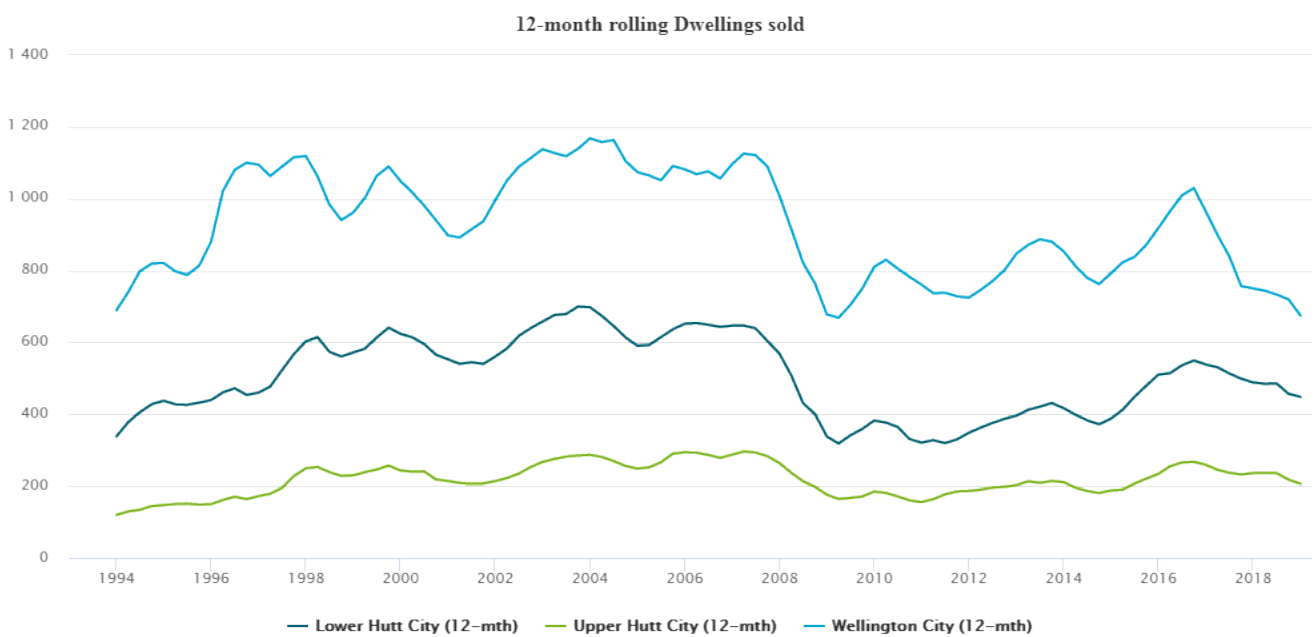
When compared to other districts across the country, prices in Wellington have retained an upward trajectory. This reflects both the higher household income in the region (as detailed in

Business Demand reporting), and the continued demand for housing as a result of labour demand thanks to the buoyancy of the local economy. Despite this positive economic outlook, the continued demand for housing results in prices across the housing spectrum increasing, further diminishing the accessibility of lower quartile housing. These results therefore summarise broad issues with the lack of housing supply and housing choice.



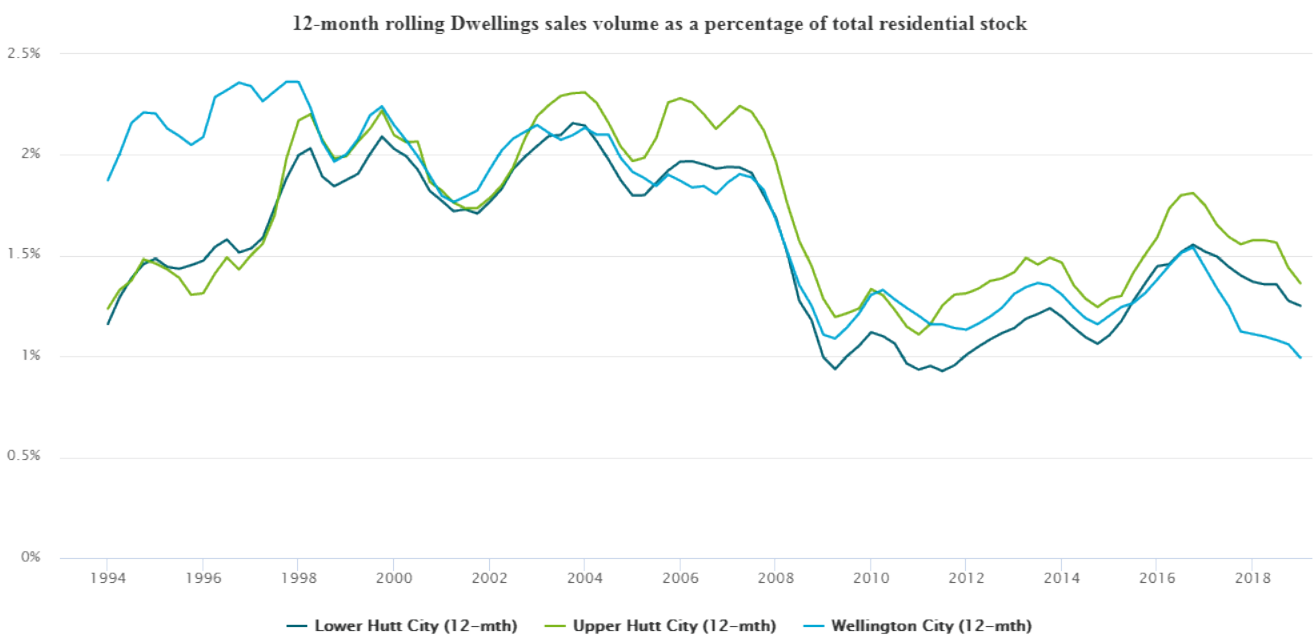
**Figure 6.15.** Median residential dwelling inflation-adjusted rent prices for Upper Hutt, Wellington City, and the Greater Wellington Region. Source: MBIE

Rolling rental data trends closely align with those detailed in the sale data. Rental and sale prices both increased quickly in the last few years, although rental prices of a higher rate and later than sale prices. This means that rental price increases for Upper Hutt reflect changes throughout the region, as well as those experienced in Wellington City. Relativities do of course exist however, with average rental prices being some \$100 cheaper than Wellington City, and about \$20-\$30 cheaper than regional prices.



**Figure 6.16.** 12-month rolling number of dwellings sold for Upper Hutt, Wellington City, and the Greater Wellington Region. Source: MBIE

The quantity of dwellings sold in Upper Hutt is also generally similar to regional trends, while total sale figures are lesser than other areas. Sale figures drop heavily from 2008, following GFC trends, rising (on average) to 2016 and dropping thereafter. Interestingly, current sale rates are now similar to those experienced following the GFC.



**Figure 6.17.** 12-month rolling number of dwellings sold as a percentage of housing stock for Upper Hutt, Wellington City, and the Greater Wellington Region. Source: MBIE

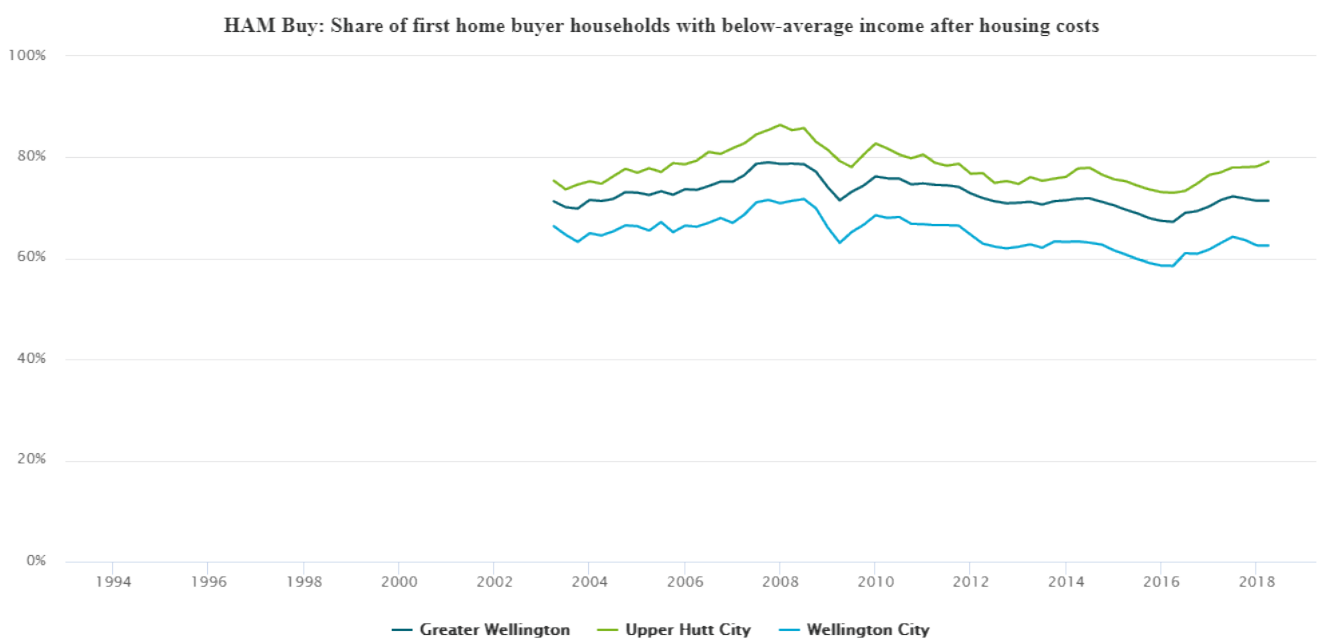
Proportioning total sale figures to housing stock provides for some comparable relativity. This shows that while total sale figures don't compare, the number of houses sold in Upper Hutt are proportionally high than the regional average, as well as those experienced in Wellington City.

This trend is not new, with Upper Hutt having a higher than average proportional number of sales for about the last 15

years. This means that Upper Hutt has a relatively active housing market, with a higher than average turnover of dwellings. Several factors may explain this trend, including regional internal migration throughout age demographics (Upper Hutt typically captures the early and middle age demographics, with people moving to other parts of the district through their 20-40s, as well as later in life for retirement(156)).

156. See age structure break-down here: <https://profile.idnz.co.nz/upper-hutt/five-year-age-groups>

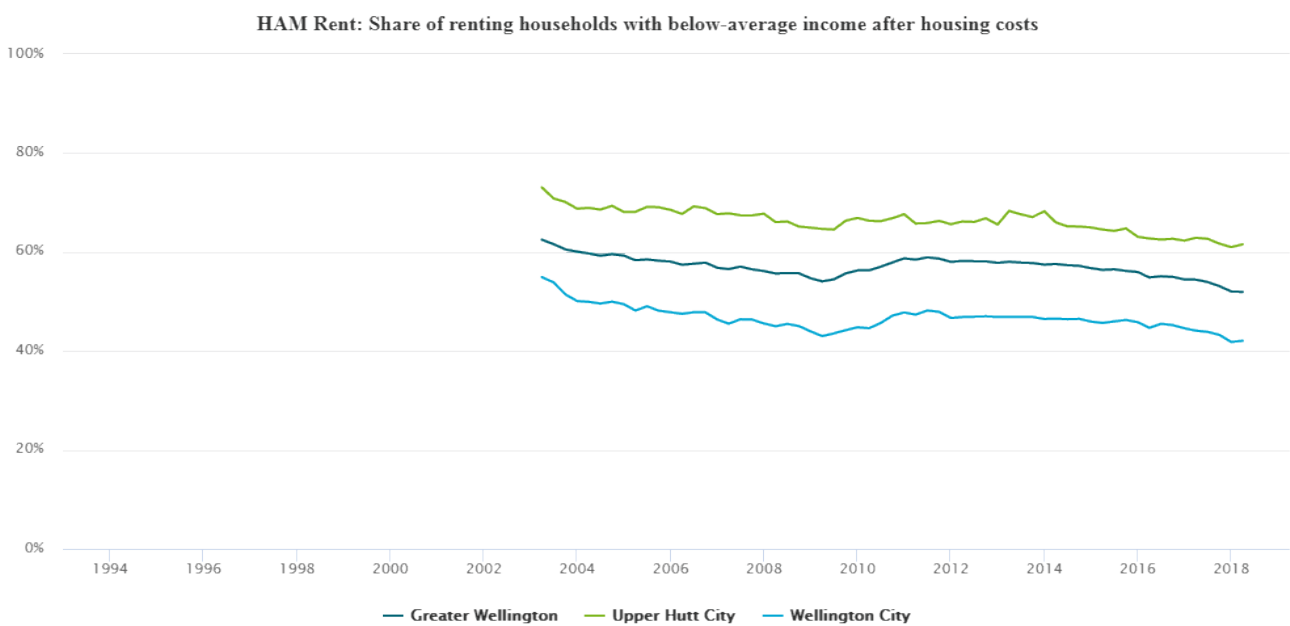




**Figure 6.18.** Housing Affordability Measure (HAM) Buy. Share of first home buyer households with below-average income after buying housing costs in Upper Hutt, Wellington City, and the Greater Wellington Region. Source: MBIE

Under the HAM measure, Upper Hutt after housing cost income remains consistently lower, with trends generally having some regional alignment. As the measure is influenced by the likes of: dwelling prices; mortgage rates; and household income, it is thought that the juxtaposition of relatively high house prices and lower household incomes make for an unfavourable affordability outcome for first home buyers.

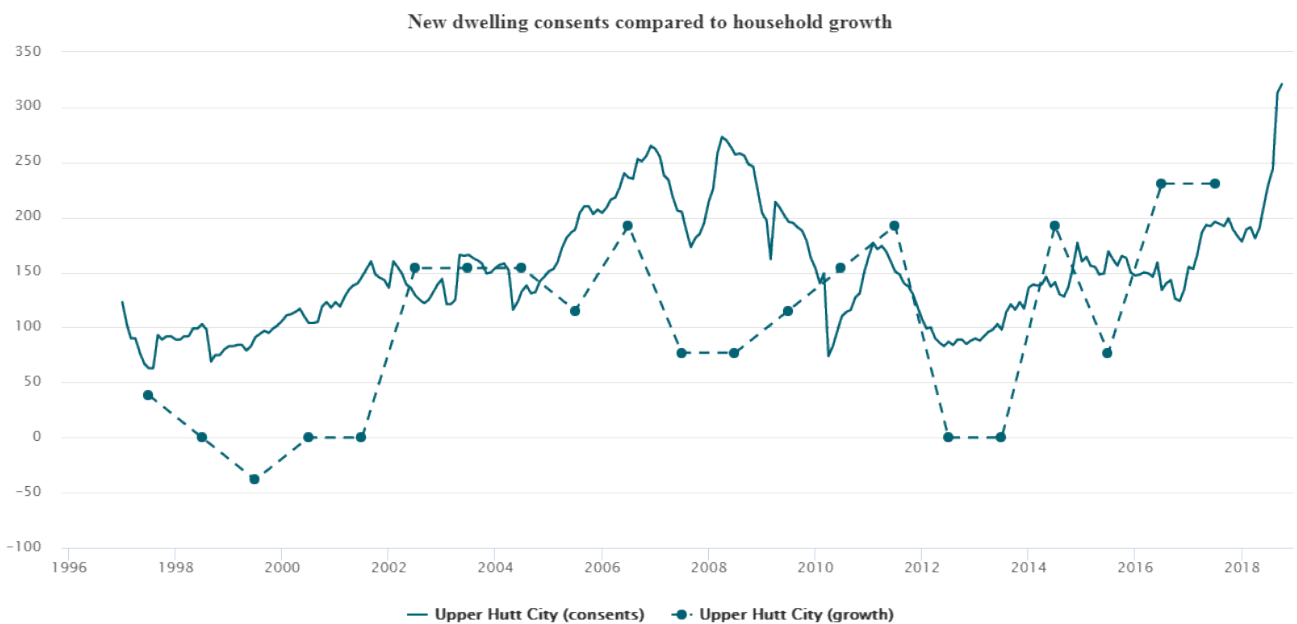
The latest results show that about 80% of first home buyer households will have below-average incomes after housing costs, compared to just over 60% in Wellington City, and about 70% on average across the region.



**Figure 6.19.** Housing Affordability Measure (HAM) Rent. Share of renting households with below-average income after rental housing costs in Upper Hutt, Wellington City, and the Greater Wellington Region. Source: MBIE

Results and relativities are similar here to those detailed for sale prices, however recent trends slightly differ. Rental prices in Upper Hutt are expected to leave just over 60% of renting households with below-average incomes, compared to just over 40% in Wellington City, and about 50% across the region.

It is noted however that the HAM measure does not calculate what proportion of households already had below-average incomes, prior to housing costs being factored in.



**Figure 6.20.** New Dwelling consents compared to household growth in Upper Hutt. Source: MBIE

The above measure attempts to approximate the responsiveness of development for building consents against resident population, divided by the local average housing size (157). This metric shows that consenting has generally aligned with population growth over the years, however in more recent years margins between the two have narrowed. Interestingly, the latest consenting results show a significant increase. It is unknown whether consent figures include all consents, or only new dwelling consents. Here, reference is made to Councils own quarterly reporting, summarised below.

#### 4.2 Summary of Market Indicators

Results across almost all market indicators affirm the workings of the housing market at a regional scale, with Upper Hutt trends aligning with those experienced across the region. Activity in recent years suggests that the reducing quantum of houses sold may be increasing the rate of house sale price increases, placing pressure on the production of housing supply.

Results also show that the market is in a responsive trajectory, with consents drastically increasing. It is hoped that reported increases result in additional supply and that this upward trajectory continues.

157. MBIE Dashboard states that the measure is not adjusted for non-completions, or for demolitions.

### 4.3 Price Efficiency Indicators

Policy PB7 of the NPS requires Councils to monitor a range of price efficiency indicators. These indicators seek to provide a deeper insight into the operation of the land market and planning interventions within it.

There are four such indicators:

- Price Cost Ratio
- Rural-Urban Differentials
- Industrial Differentials
- Land Concentration Index

These indicators are produced by the Ministry for Business, Innovation and Employment, and the Ministry for the Environment. They are reproduced directly(158).

### 4.4 Price Cost Ratio

The price cost ratio indicator provides an insight into the responsiveness of the land market, relative to construction activity. In short, it monitors the proportion of land cost to the cost of a home. The ratio is composed of the following:

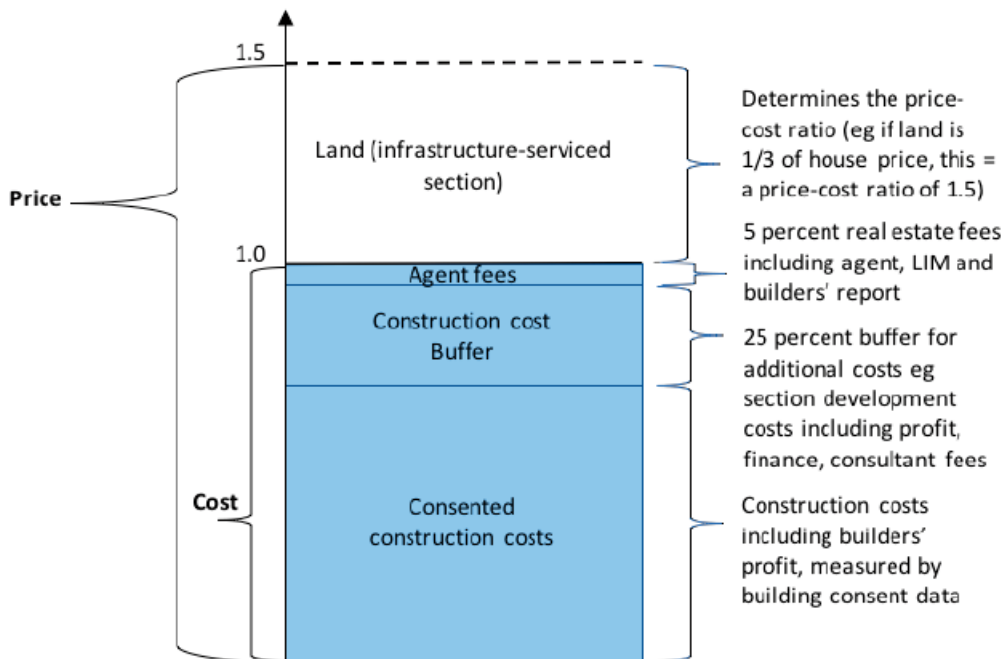


Figure 6.21. Composition of the Price-Cost Ratio. Source: MfE/MBIE

A ratio of below one indicates that houses are selling for a price below the cost of replacing them. Such a situation may occur in areas of no growth or even contraction.

158. Urban Development Capacity Dashboard <https://mbienz.shinyapps.io/urban-development-capacity/>

A price cost ratio of between 1-1.5 is historically common where the supply of land and development opportunities is responsive to demand. As noted in the Evidence and Monitoring Guidelines<sup>(159)</sup> all urban areas in New Zealand had a ratio of between 1-1.5 some 20 years ago. In areas of New Zealand with more affordable housing markets, such ratios are still common.

And a price cost ratio above 1.5 suggests, with some caveats, that land supply and development opportunities are not keeping up with demand. As a result, land prices are having an upward effect on house prices.

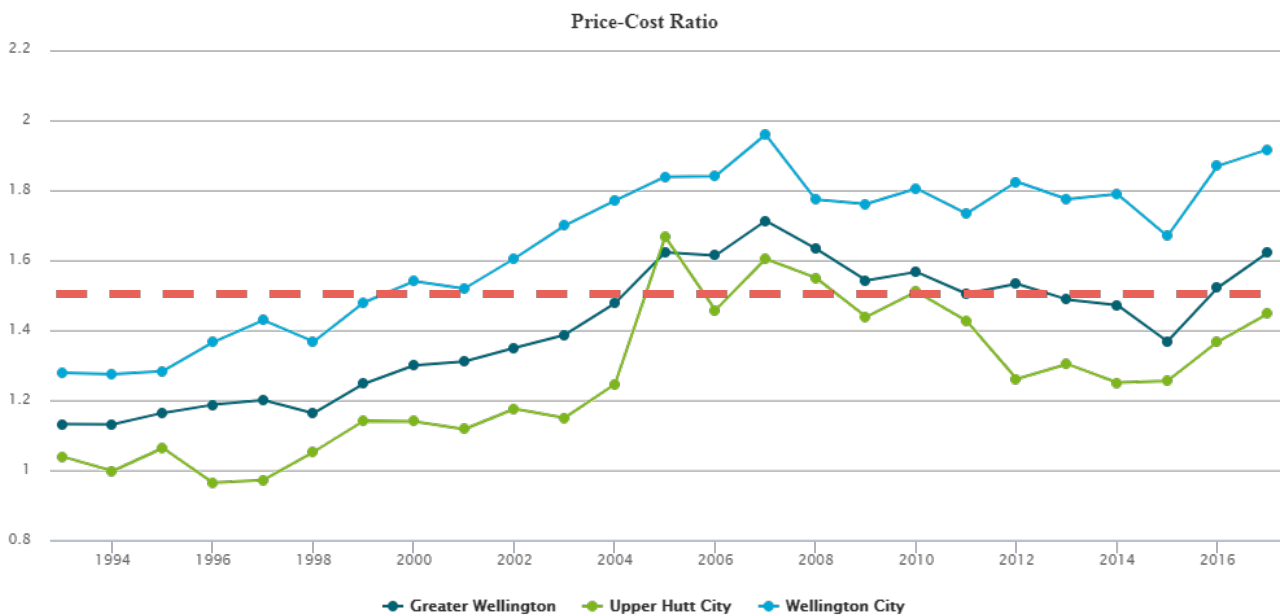


Figure 6.22. Price-Cost Ratio across Upper Hutt, Wellington City, and Greater Wellington. Source: MBIE

Upper Hutt remains an attractive place to develop, with a price-cost ratio of just below 1.5. This compares to the regional average of about 1.6 and the Wellington City price-cost ratio of about 1.9.

Results do however indicate that the ratio is increasing for Upper Hutt, meaning that care needs to be taken to ensure that land availability and construction costs need to be actively monitored to remain attractive.

As above, MBIE/MfE also report on Rural-Urban Differentials, Industrial Differentials, and the Land Concentration Index. Unfortunately these measures lack relativity for the Upper Hutt context: the rural and industrial price differentials relate

to the entire urban area, so results are not relevant to Upper Hutt (reference is instead made to the Wellington City chapter in this HBA); and the Land Concentration Index has failed to accurately conceptualise local conglomerations of ownership across commonly-owned business entities, as well as incorrectly identifying vacant residentially-zoned land.

UHCC has instead adapted the dashboard list to remove public entities, as well as include additional records that had been omitted from the dashboard, while cross-referencing corporate controlling entries on the Companies Register<sup>(160)</sup> for commonalties in ownership. These results are provided below and show the top 10 property holdings when aggregating ownership through this method.<sup>(161)</sup>

159 NPS-UDC: Guide on Evidence and Monitoring – available at: <https://www.mfe.govt.nz/publications/towns-and-cities/national-policy-statement-urban-development-capacity-guide-evidence>

160. Available at: <https://companies-register.companiesoffice.govt.nz/>

161 Owner details have checked in accordance with the requirements of s28C of the Local Government (Rating) Act 2002.

Rank	Area (ha)	Title Count	Controlling Entity	Listed Common Entity
1	47.4	2	Alfred John Teasdale, Robyn Marion Teasdale	Nil
2	32.8	3	Wooster Maurice William, Wooster Fumi Ayako	Nil
3	30.4	9	Wallaceville Developments Limited; Riverstone Developments UH Limited	Marua Management Limited
4	13.4	1	Greig William Rowan	Nil
5	9.6	1	Jades Riverstone Limited	Nil
6	4.2	1	Fiona Mary Glover, Ian Wilford Glover	Nil
7	2.7	1	Cara Vanessa Townsend, Keith Raymon Townsend	Nil
8	2.5	1	Tararua Management Limited	Nil
9	2.4	1	Joseph Mark Hall, Laurence Matthew Gerald Hall	Nil
10	2.2	1	MC Developments 1 Limited	Nil

**Table 6.2.** Adapted MBIE/MfE Dashboard list of entities controlling undeveloped residentially zoned land

#### 4.5 Local Monitoring

As with other Councils, UHCC has chosen to use its Q4 reporting under PB6 of the NPS-UDC as an opportunity for an annual review of prescribed NPS affordability parameters. Council completed this annual report for 2017, with results summarised below and the complete report is attached as **Appendix 6.4** to this chapter.

Sales data showed that while there was a rise in sales prices in 2017, the rate of increase was slowing overall, compared to 2016. For rentals, there appeared to be a 'lag-effect' between sale prices and rental prices, with the relative price change between quarters dropping about 7% in Q1 2017, whereas rental prices experienced a similar drop three quarters later, in Q4 2017. Overall, sale prices increased 4.84% and rental prices increased 13.48%.

Business premise prices for rentals and sales were not captured in reporting. This has been a difficulty for overall quarterly reporting due to the commercial sensitivities surrounding prices, vested interests in claiming certain prices and the lack of frequency business property prices are reported on.

Consenting information looks at quarterly resource consents and building consents. Reporting also specifies building consents just for new dwellings, as well as the number of new lots approved by subdivision consents. Population growth is also estimated based on Forecast .id information aggregated on a quarterly basis.

While quarterly resource consent approvals remained fairly steady (at about 30 per quarter, for all consents), building consents issued increased over 30% in 2017, with almost 70 extra building consents granted in the urban area. Here, quarterly results saw an increase of over 80% when compared to the equivalent quarter in 2016. This positive increase in new dwelling activity was also demonstrated in the number of new lots consented, increasing 56% to 214 lots consented, compared to 137 lots in 2016. Of note was the median number of lots created per quarter, which increased 344% to 56, compared to 13 lots per quarter in 2016. This indicates a strong uptake in greenfield development over the period, aiding the ease of building new dwellings. Overall consenting results for both years are shown below:

### Yearly comparison: 2016 and 2017 - number of urban consents granted

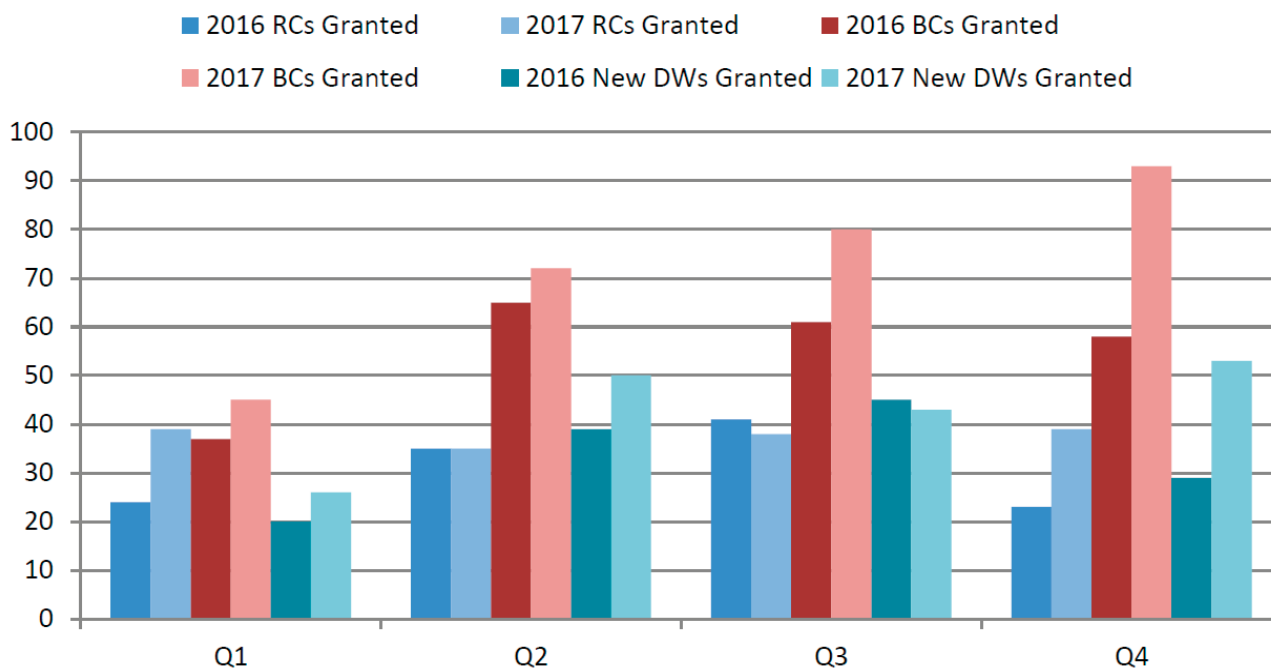


Figure 6.23. Number of urban consents granted per quarter in in 2016 and 2017<sup>(162)</sup>

Reporting also estimates likely new capacity through new dwelling construction and average household size, versus estimated population growth. For Q4 2017 there was an aggregated population growth of 67 people, with new dwellings providing an estimated capacity for 137 people. At a yearly level, this means that through this calculation consenting for new dwellings created a 'capacity surplus' of about 180 people, whereas in 2016 this surplus was almost 80. This is a positive increase over the last two years in light of increased housing demands, however does not consider any 'capacity deficits' from previous years.

162. Note, RC = Resource Consents; DWs = Dwellings.

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Lastly, to assess indicators of affordability, UHCC monitors the following parameters:

- Mortgage rates;
- Net migration;
- Income;
- Building supply (as above); and
- MBIE/MfE Market Indicators (as previous).

For these, the likes of mortgage rates and income have made positive contributions to increasing overall affordability, however the likes of net migration was seen to have the greatest influence on overall sufficiency of housing supply. National SNZ figures for 2017 showed that there was a sustained high level of net migration, being at 70,000 people in the year to December 2017. Reporting concludes that this was the single largest influence of housing affordability in Upper Hutt.



## 5.0 Housing Demand

### Key Findings

- Upper Hutt is predicted to grow between 9,071 and 12,860 people from 2017 to 2047.
- To accommodate this growth, the District will require between 5,392 and 6,218 new dwellings<sup>(163)</sup>. This equates to a demand of 4,883 to 5,643 dwellings for the urban area between 2017-2047 (excludes 'Other Dwellings').

Population and dwelling projections for Upper Hutt use the regionally-adopted modelling approach of using the Forecast .id projection and the Statistics NZ High forecast projection as the basis for residential demand modelling. This is outlined in the regional chapter and supporting appendices.

Population growth for Upper Hutt over the period 2017-2047 is projected as follows:

	Short term: 2017-2020	Medium term: 2020-2027	Long term: 2027-2047	Total: 2017-2047
UDC Model Forecast .id	719	1,751	6,601	9,071
UDC Model SNZ High	1,620	3,420	7,820	12,860

**Table 6.3.** Population growth for Upper Hutt City Council, 2017-2047.

Translating that population growth into households, the number of dwellings required to meet that population growth is projected, as follows:

	Short term: 2017-2020	Medium term: 2020-2027	Long term: 2027-2047	Total: 2017-2047
UDC Model Forecast .id	439	1,099	3,084	4,622
UDC Model SNZ High	802	1,798	3,619	6,218

**Table 6.4.** Demand for dwellings, Upper Hut City Council, 2017-2047.

It is considered that the modelled Forecast .id projection is, over the long term, the most accurate predictor of likely growth rates for Upper Hutt. While growth rates may increase above that over shorter durations, historical growth rates suggest a return to the medium rate over the long term<sup>(164)</sup>.

163. Inflated figure, as per Policy PC1 of the NPS and inclusive of 'Other Dwellings'.

164. Note that for completeness, a high growth scenario in this assessment also utilised.

In accordance with Policy PC1 of the NPS, the baseline demand number is then inflated by 20% over the short and medium term, and 15% over the long term in order to ensure that a suitable buffer of over-supply is provided for. The high growth scenario remains unchanged. The resulting demand is as follows:

	Short term: 2017-2020	Medium term: 2020-2027	Long term: 2027-2047	Total: 2017-2047
UDC Model Forecast .id	527	1,319	3,546	5,392
UDC Model SNZ High	802	1,798	3,619	6,218

**Table 6.5.** Adjusted demand for dwellings, Upper Hut City Council, 2017-2047.

All subsequent demand figures have therefore been inflated accordingly.

Overall demand is then considered in terms of what dwelling types are in demand.

Broadly, housing demand is categorised into these typologies:

- Standalone – Low density housing, stand-alone houses on separate allotments.
- Terraced – Medium density housing, broadly encompasses terraced housing, semi-detached dwellings and low-rise apartments.
- Apartments – in an Upper Hutt context, higher density refers to residential apartments located above commercial premises within the CBD.

Additionally, 'other dwellings' consists of mobile and improvised dwellings, roofless or rough sleepers, and dwellings in a motor camp<sup>165</sup>. For completeness, the demand for this typology has been included for Residential Demand, however has not been included in housing sufficiency calculations.

Based on the modelled Forecast .id projection the following estimates by dwelling types are projected (occupied private and vacant dwellings):

	Short term: 2017-2020	Medium term: 2020-2027	Long term: 2027-2047	Total: 2017-2047
Standalone	362	858	2,887	4,107
Terraced	132	377	415	924
Apartments	6	11	66	83
Other Dwellings	28	73	178	279
<b>Total:</b>	<b>527</b>	<b>1,319</b>	<b>3,546</b>	<b>5,392</b>

**Table 6.6.** Upper Hutt projected dwellings by type. Modelled Forecast .id scenario, inflated.

165. Statistics New Zealand definition. In 2001, this category was called 'temporary private dwellings'.

And based on a high growth scenario, the following demand by dwelling types are projected (occupied private and vacant dwellings):

	Short term: 2017-2020	Medium term: 2020-2027	Long term: 2027-2047	Total: 2017-2047
Standalone	576	1,234	2,932	4,742
Terraced	172	452	437	1,061
Apartments	13	16	68	98
Other Dwellings	41	95	181	317
<b>Total:</b>	<b>802</b>	<b>1,798</b>	<b>3,619</b>	<b>6,218</b>

**Table 6.7.** Upper Hutt projected dwellings by type. Modelled SNZ High Growth scenario.

It is important to note that the above represents district-wide demand. Subsequent figures only seek to represent urban areas, removing the Mangaroa / Whitemans area from analysis. The Akatarawa / Moonshine area is included as this contains future urban growth areas at the urban fringe.

## 5.1 Demand by Location and Price

In addition to addressing overall demand, it is necessary to consider where the demand exists for the various housing types. For the purposes of this HBA, Upper Hutt has been divided into six broad catchments, as shown below:

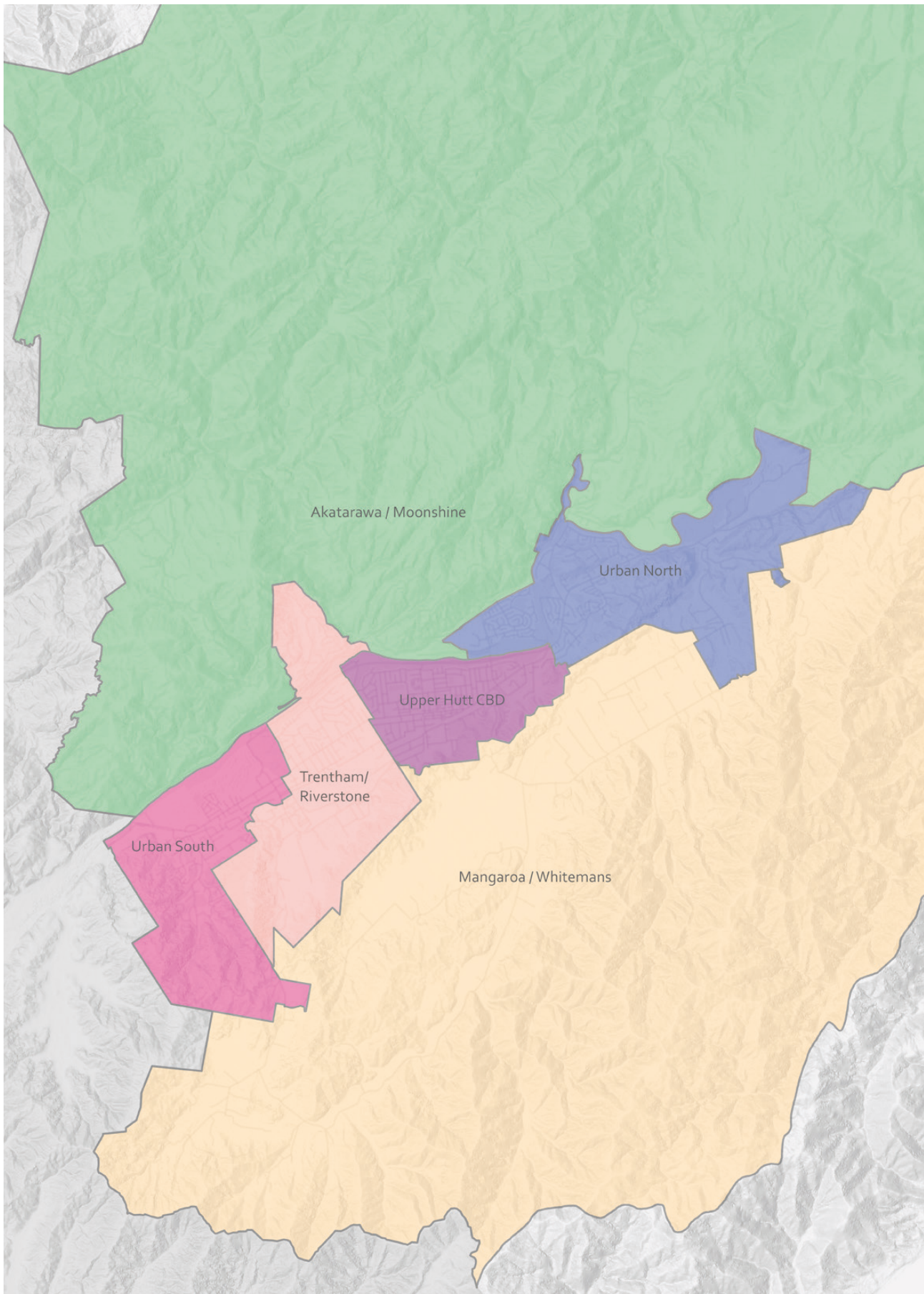


Figure 6.24. Upper Hutt housing areas under the HBA

A number of assumptions are made in preparing this classification:

- The UDC residential demand model groups flats, units, and apartments together. To determine high density numbers, any result for this field in the CBD will be for apartments. Therefore, within the CBD, all results for flats (et al.) are attributed to apartments, and removed from medium density results.
- Therefore, in no other areas are apartments projected. Due to the current housing make-up of Upper Hutt, and historic demand for housing, this assumption is considered appropriate.

Urban South	Short term: 2017-2020	Medium term: 2020-2027	Long term: 2027-2047	Total: 2017-2047
Standalone	78-120	117-197	605-612	800-929
Terraced	17-24	23-37	100-102	140-163
Apartments	0	0	0	0
Other Dwellings	3-5	4-7	22-22	29-34
<b>Total:</b>	<b>98-149</b>	<b>144-242</b>	<b>727-736</b>	<b>969-1,127</b>

**Table 6.8.** Projected dwelling type, Urban South, Forecast .id and SNZ High, 2017-2047

Trentham / Riverstone	Short term: 2017-2020	Medium term: 2020-2027	Long term: 2027-2047	Total: 2017-2047
Standalone	152-191	397-463	303-331	852-984
Terraced	97-106	291-303	150-161	538-569
Apartments	0	0	0	0
Other Dwellings	14-16	42-45	24-26	80-87
<b>Total:</b>	<b>263-313</b>	<b>730-811</b>	<b>478-517</b>	<b>1,471-1,641</b>

**Table 6.9.** Projected dwelling type, Trentham / Riverstone, Forecast .id and SNZ High, 2017-2047

Upper Hutt CBD	Short term: 2017-2020	Medium term: 2020-2027	Long term: 2027-2047	Total: 2017-2047
Standalone	41-100	125-225	391-415	557-739
Terraced	8-24	39-73	97-103	144-201
Apartments	6-13	11-16	66-68	83-98
Other Dwellings	3-7	9-16	29-31	41-54
<b>Total:</b>	<b>58-145</b>	<b>184-330</b>	<b>582-617</b>	<b>824-1,092</b>

**Table 6.10.** Projected dwelling type, Upper Hutt CBD, Forecast .id and SNZ High, 2017-2047

Urban North	Short term: 2017-2020	Medium term: 2020-2027	Long term: 2027-2047	Total: 2017-2047
Standalone	72-129	174-272	795-803	1,041-1,204
Terraced	9-17	23-37	49-53	81-107
Apartments	0	0	0	0
Other Dwellings	6-10	15-22	52-53	73-86
<b>Total:</b>	<b>87-157</b>	<b>212-331</b>	<b>897-910</b>	<b>1,196-1,398</b>

**Table 6.11.** Projected dwelling type, Urban North, Forecast .id and SNZ High, 2017-2047

Akatarawa / Moonshine	Short term: 2017-2020	Medium term: 2020-2027	Long term: 2027-2047	Total: 2017-2047
Standalone	8-16	23-36	601-581	632-633
Terraced	0	1-1	14-14	15-15
Apartments	0	0	0	0
Other Dwellings	1-1	1-2	38-37	40-40
<b>Total:</b>	<b>9-18</b>	<b>25-40</b>	<b>653-631</b>	<b>687-688</b>

**Table 6.12.** Projected dwelling type, Akatarawa / Moonshine, Forecast .id and SNZ High, 2017-2047

Mangaroa / Whitemans	Short term: 2017-2020	Medium term: 2020-2027	Long term: 2027-2047	Total: 2017-2047
Standalone	9-20	22-41	192-191	223-252
Terraced	0	1-1	4-4	5-6
Apartments	0	0	0	0
Other Dwellings	1-1	1-3	12-12	14-16
<b>Total:</b>	<b>10-22</b>	<b>24-44</b>	<b>209-208</b>	<b>243-274</b>

**Table 6.13.** Projected dwelling type, Mangaroa / Whitemans, Forecast .id and SNZ High, 2017-2047

Note that figures may slightly differ due to rounding in the model.

These results are illustrated below for both growth scenarios.

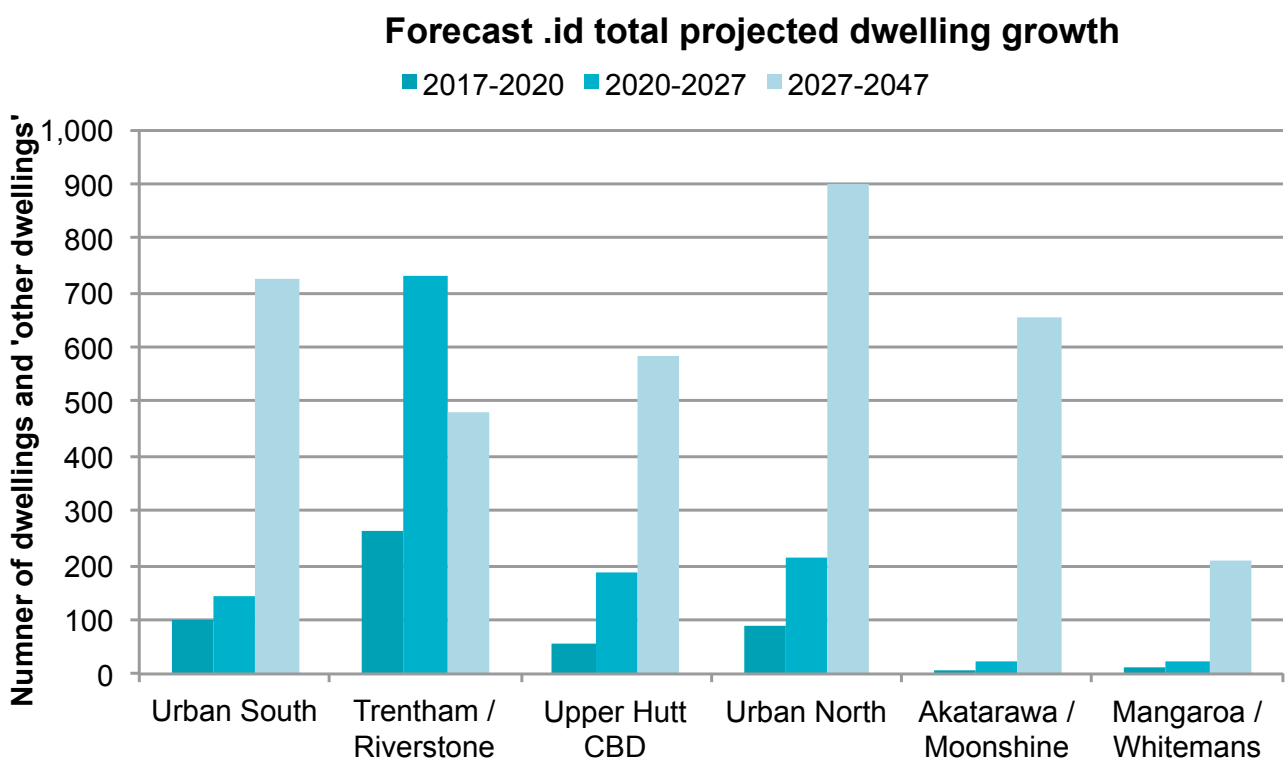
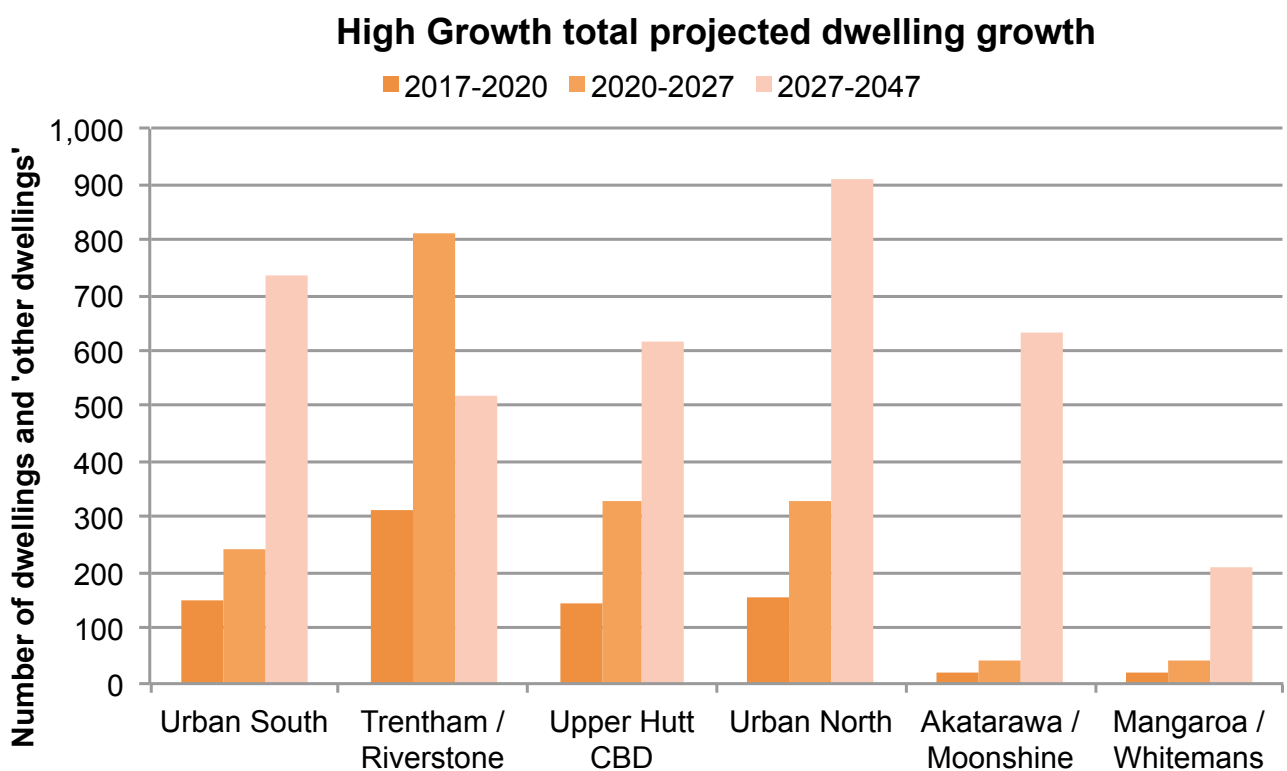


Figure 6.25. Projected dwelling growth by housing area, over the short, medium, and long term under Forecast .id baseline growth scenario



**Figure 6.26.** Projected dwelling growth by housing area, over the short, medium, and long term under SNZ High Growth scenario

Analysing growth for each Housing Area within the prescribed time periods allows Council to assess where there is likely to be immediate demand. Of note is the Trentham / Riverstone Housing Area which for both baseline and high growth scenarios shows a high degree of development anticipated over the medium term. This area also shows the strongest growth of medium density housing (flats / comprehensive housing) of between 533-668 extra units between 2017 and 2047.

Lastly, the data also demonstrates the significant amount of growth which is anticipated to occur from 2027 onwards in the north of the city, particularly in the Akatarawa / Moonshine Housing Area. This growth is largely reflective of growth identified in the Upper Hutt Land Use Strategy 2016-2043.



## 6.0 Housing Development Capacity

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### Key Findings

- Modelling indicates that Upper Hutt has a small proportion of Plan-enabled infill capacity that can be feasibly developed.
- Greenfield areas could yield between 2,218 and 5,291 dwellings, and infill areas between 691 and 2,483 dwellings, when factoring the alternative sensitivity scenario.
- Overall, the development of terraced housing is less feasible than standalone housing

As with much of the Wellington Region, Upper Hutt is constrained by topography and natural hazard areas. Development within Upper Hutt has therefore largely been constrained on predominately flat parcels of land along-side the Hutt River. Residential occupation of the Hutt Valley extends southward into Lower Hutt and represents one of the largest occupations of a river flood plain nationally. The only other large extent of flat land is contained within the Mangaroa Valley, lying parallel to the urban area, and is representative of a rural environment, with a mixture of pasture, agricultural production, and rural lifestyle occupation.

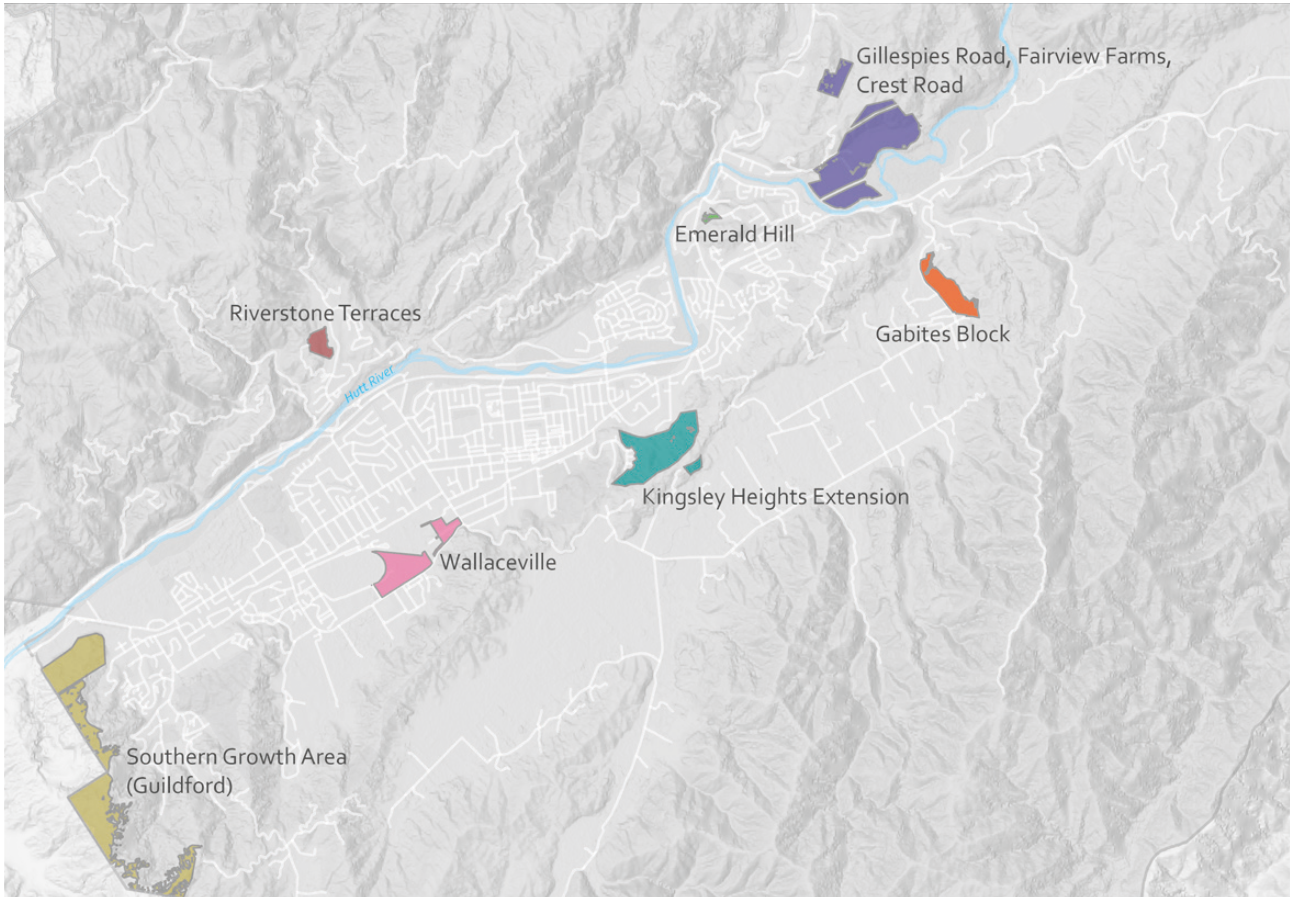
### 6.1 Greenfield

Previous work through the 2007 Urban Growth Strategy and supplementary 2016 Land Use Strategy (LUS) have sought to conceptualise these constraints and strategize how and where the city will grow. The LUS identified a number of key greenfield growth areas for long-term growth and estimated likely yields based on anticipated typologies and site-specific considerations. Identified greenfield growth areas are:

- Wallaceville;
- Gillespies Road;
- Southern Growth Area (Guildford); and
- Gabites Block.

The greenfields assessment sought to verify both yields and feasibility of future greenfield sites, as well as an assessment of currently vacant residential land of 5ha or greater. The assessment took into consideration existing site constraints, including the likes of slopes, natural hazards, transmission lines, as well as other District Plan constraints such as designations.

In consultation with UHCC, estimated dwellings per hectare were applied to each greenfield area. These densities were based on densities of similar typologies in existing urban areas around Upper Hutt. Sites assessed are illustrated the figure below.



**Figure 6.27.** Upper Hutt business areas used for the HBA

UDC Growth Areas	UDC Council Estimate	LUS yield Estimate
Southern Growth Area (Guildford)	1,116	1,000
Wallaceville	445	600 (700) <sup>(166)</sup>
Riverstone Terraces	99	N/A
Kingsley Heights	369	N/A
Gillespies, Fairview, Crest Rd	567	760
Gabites Block	198	220
Emerald Hill	24	N/A
<b>TOTAL</b>	<b>2,818</b>	<b>2,580</b>

**Table 6.14.** UHCC Greenfield Yields & Vacant Residential Lots

166. While the Land Use Strategy states a yield of 700, a figure of 600 has been included here to account for the uptake of capacity since the release of the strategy.

The initial assessment largely affirms LUS estimates and validates that almost 2,800 new residential sections are feasible when applying a static density across each individual site. The total figure also incorporates other identified vacant residential parcels, so is therefore higher than LUS estimates.

## 6.2 Greenfield sensitivity analysis

Sensitivity analysis was undertaken in order to validate assumed Council densities. This involved evaluating a range of densities across each site to test which density would be the most feasible, from a financial profit perspective, with the most profitable density applied.

While static council-informed densities ranged from 9 to 25 dwellings per hectare, work conducted by MRCagney created a model that tested a variety of ranges of between 10 to 30 dwellings per hectare, creating a dynamic range across each site. This tested the maximum density that is economically viable, without consideration of planning controls. These results are detailed below:

Growth Area	UDC Council Estimate	UDC Sensitivity Test	Change (#)	Change (%)
Southern Growth Area (Guildford)	1,116	1,511	+395	+35%
Wallaceville	445	572	+127	+29%
Riverstone Terraces	99	129	+30	+30%
Kingsley Heights	369	856	+487	+132%
Gillespies, Fairview, Crest Rd	567	1,735	+1,168	+206%
Gabites Block	198	457	+259	+131%
Emerald Hill	24	31	+7	+29%
<b>TOTAL</b>	<b>2,818</b>	<b>5,291</b>	<b>+2,473</b>	<b>+88%</b>

**Table 6.15.** UDC Greenfield Sensitivity Tests

Sensitivity testing reveals that there may be significant development opportunities within some identified greenfield sites, with an overall maximum yield increase of almost 90% on static council estimates, or just under 2,500 additional lots.

Of particular note is the wider Gillespies Block site, Kingsley Heights, and the Gabites Block, which collectively have a potential additional capacity of almost 2,000 new residential sections over static council-informed estimates (1,134 static, 3,048 dynamic).

The greenfields feasibility model takes into consideration the value of desirable site features, such as orientation and view. As all of these sites contain elements of these features, this inflates the overall desirability, increasing the feasibility of smaller allotments.

This substantial increase in the overall feasibility of growth areas from static estimates will encourage council to evaluate its overall density strategy in the Rural and Residential Chapters review of the Upper Hutt District Plan.

A copy of the MRCagney Greenfield report is attached as **Appendix 1.4** to this HBA.

### 6.3 Infill and Redevelopment

The infill and redevelopment model assesses areas of 5ha or less in terms of their ability to cater for infill development or a comprehensive redevelopment by applying current standards of the District Plan. These two scenarios in practice mean that: for infill, vacant proportions of established residential allotments are developed and subdivided; and for comprehensive, the established dwelling is demolished and the entire site is redeveloped to the maximum potential of development controls.

The methodology report of this assessment is attached as **Appendix 1.3** to this HBA.

The feasibility model then performed an assessment of the feasibility of plan-enabled capacity, apportioned on a 'suburb' level using Census Area Units. Results are provided below and have been aggregated to the urban Housing Areas described in the Residential Demand section.

All figures detail feasible development, aligning with the NPS-UDC requirement of commercial viability<sup>167</sup> for any attributed development capacity.

Typology	Quantity
Apartment	9
Terraced	210
Standalone	793
TOTAL:	1,012

**Table 6.16.** Overall feasible infill housing by type

This city-wide typology mix is then shown by each urban Housing Area:

Housing Area	Feasible Apartment	Feasible Terraced	Feasible Standalone	Total Feasible Infill
Urban South	0	78	226	304
Trentham / Riverstone	0	93	276	369
Upper Hutt CBD	9	39	291	339
Urban North	0	0	0	0

**Table 6.17.** Feasible infill housing by housing area and type

167. A 20% profit margin is used for this purpose.

## 6.4 Infill and Redevelopment Sensitivity Analysis

Property Economics developed four sensitivity tests to test the validity of the 'normal' model reporting. These four scenarios are summarised below:

- Increasing the build value across all typologies by 15%**  
 This has a direct effect on the finished build value, affecting the difference between overall build cost and build value, and overall profitability.
- Increasing the savings incurred due to economies of scale (EOS)**  
 This assumes that when larger, more comprehensive developments are undertaken, the build cost is able to be reduced because larger quantities of building materials are purchased. This increases scale savings in the normal model by an additional 35%, directly affecting the profitability of larger developments.
- Increasing the maximum attainable land value in the model by 10%**  
 Adjusts the possibility of the highest per square metre land value increasing by 10% in the future.
- Decreasing the maximum attainable land value in the model by 10%**  
 As above, this decreases the improved maximum land value achievable through subdivision by 10%.

Scenario	Feasible Apartment	Feasible Terraced	Feasible Standalone	Total Feasible Capacity
Normal Model	9	210	793	1,012
Increased EOS (50%)	13	294	1,108	1,414
Increased Build Value (15%)	22	515	1,945	2,483
10% Increased Land Value	11	253	955	1,218
10% Decreased Land Value	8	194	733	936

**Table 6.18.** Feasible capacity with sensitivity analyses applied

Understanding the localised development context is critical when evaluating the suitability of the above scenarios. Previous analysis of historic sales data in Upper Hutt revealed that the rate of residential property sales does not correlate to the rate of property sale price increases. Sales prices have increased at a comparatively higher rate. Secondly, historic consenting also showed that single standalone dwellings were most commonly developed, which was supported by sales data.

This may mean that the *Increased Build Value* or *10% Increased Land Value* scenarios are appropriate alternative development scenarios for Upper Hutt. This is addressed in the conclusion of this chapter.

A copy of the Upper Hutt Residential Capacity report is attached as **Appendix 6.5**.

## 7.0 Housing Feasibility and Sufficiency

### Key Findings

- Housing across the district will largely be sufficient up to the medium term, however it is anticipated that between 1,374 - 2,132 dwellings will be required in the long term. Upper Hutt will need to increase the output of new dwellings by 20-60% above historical averages to meet projected demand.
- There will likely be a consistent undersupply of terraced housing.
- At a local level, the Urban North Housing Area is consistently under capacity over every time period, with an undersupply of over 1,000 dwellings over the 30 year time period.
- Only the Urban South Housing Area is projected to have sufficient housing supply, due to the introduction of the Southern Growth Area in the long term.

From feasible capacity, the assessment turns to what proportion of that capacity is practically realisable, and whether this capacity is sufficient to meet the demand outlined earlier.

### 7.1 Feasibility

When combining Residential Greenfield capacity with Infill and Redevelopment capacity, Upper Hutt is anticipated to be able to provide for a feasible development capacity of **3,830** dwellings.

Here, it is assumed that all greenfield areas are built as standalone dwellings.

Housing Area	Apartments	Terraced	Standalone	Greenfield Standalone	Total
Urban South	0	78	226	1,116	1,420
Trentham / Riverstone	0	93	276	544	913
Upper Hutt CBD	9	39	291	369	708
Urban North	0	0	0	222	222
Akatarawa / Moonshine	0	0	0	567	567
Mangaroa / Whitemans	0	0	0	0	0
<b>TOTAL:</b>	<b>9</b>	<b>210</b>	<b>793</b>	<b>2,818</b>	<b>3,830</b>

**Table 6.19.** Overall feasible development capacity in Upper Hutt, by type and Housing Area (Infill, Redevelopment, and Greenfields)

## 7.2 Realisation

In an effort to consider real world development influences and motivations, Property Economics have sought to estimate the proportion of feasible development that will be realised. Realisation modelling takes into consideration competition amongst various developments, as well as the competition between different typologies and the risks of developing one typology over the other.

Relative risk and development competition is inflated by the likes of greenfield development, which is anticipated to provide the majority of Upper Hutt's development capacity. Realisation modelling therefore seeks to alter the required profit margins from the baseline 20% profit requirements.

	Comprehensive Developer	Infill Developer	Infill Owner
Standalone	20%	17%	25%
Terraced	23%	20%	28%
Apartment	32%	28%	39%

**Table 6.20.** Property Economics developer realisable profit rates

Property Economics conclude that only 68% of the feasible capacity may be realised because of the development competition and risk factors, and resultant realisation rates for infill developments are as follows:

- 86% - Standalone dwellings
- 5% - Terraced dwellings
- 0% - Apartments

It is therefore calculated that Upper Hutt has realisable infill capacity of 691 dwellings, with a total development capacity including greenfields of 3,509 dwellings.

Here, estimated greenfield realisation is at 100% because there are fewer constraining factors particular to it. Greenfield sites are generally held in single land ownership and there is an ability to design and execute a subdivision in a manner that is particular to that piece of land. A high level of realisation can therefore be assumed. The eventual yield could in fact be higher than the number that is modelled, as discussed through the sensitivity analysis.

Upper Hutt's resultant overall development capacity is shown below.

Housing Area	Apartments	Terraced	Standalone	Greenfield Standalone	Total
Urban South	0	10	198	1,116	1,324
Trentham / Riverstone	0	0	224	544	768
Upper Hutt CBD	0	0	259	369	628
Urban North	0	0	0	222	222
Akatarawa / Moonshine	0	0	0	567	567
Mangaroa / Whitemans	0	0	0	0	0
TOTAL:	0	10	681	2,818	3,509

**Table 6.21.** Overall realised development capacity in Upper Hutt, by type and Housing Area (Infill, Redevelopment, and Greenfields)

### 7.3 Sufficiency

Having established both demand and supply factors, the two can now be contrasted to calculate the sufficiency of development capacity in Upper Hutt. At an urban extent, the overall broad comparison can be made:

	Forecast .id model	SNZ High model
Demand:	4,883	5,643
Supply:		3,509
Shortfall/Surplus	-1,374	-2,132

**Table 6.22.** Broad housing sufficiency results

The next step is to illustrate overall demand and supply by typology, across Upper Hutt. This applies the PA1 definition of development capacity under the NPS-UDC that only currently zoned land should be included in short and medium term development capacity, and other future development areas must be identified in council strategies or plans. The requirements for servicing are addressed later in the report. For reference, PA1 is reiterated below:

<b>Short Term</b> Between 0 to 3 years	Development capacity must be feasible, zoned and serviced with development infrastructure.
<b>Medium Term</b> Between 3 to 10 years	Development capacity must be feasible, zoned and either: Serviced with development infrastructure, or The funding for the development infrastructure required to service that development capacity must be identified in a Long Term Plan required under the Local Government Act 2002.
<b>Long Term</b> Between 10 to 30 years	Development capacity must be feasible, identified in relevant plans and strategies, and the development infrastructure required to service it must be identified in the relevant Infrastructure Strategy required under the Local Government Act 2002.

For Upper Hutt, this means that the following has been included within each NPS-UDC timeframe when considering areas that are zoned and unzoned:

Short & Medium Term: 2017-2027	Long Term: 2027-2047
<ul style="list-style-type: none"> <li>• Any available realised infill and redevelopment capacity</li> <li>• Greenfields:               <ul style="list-style-type: none"> <li>- Riverstone Terraces</li> <li>- Wallaceville</li> <li>- Emerald Hill</li> <li>- Gillespies / Fairview / Crest Rd Block(s)</li> <li>- Kingsley Heights</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Greenfields:</li> <li>• Gabites</li> <li>• Southern Growth Area</li> </ul>
<b>Supply:</b> Short and medium term: 2,185	Long term additional: 1,314

**Table 6.23.** Summary of capacity inputs



Housing Type	Short Term: 2017-2020		Medium Term: 2020-2027		Long Term: 2027-2047	
	Demand	Net Capacity	Demand	Net Capacity	Demand	Net Capacity
Standalone housing	351	1,834	836	998	2,695	-383
Terraced housing	131	-121	377	-498	411	-909
Apartments	6	-6	11	-17	66	-83

**Table 6.24.** Demand and capacity comparison by housing type over time. Forecast .id scenario, inflated.

Housing Type	Short Term: 2017-2020		Medium Term: 2020-2027		Long Term: 2027-2047	
	Demand	Net Capacity	Demand	Net Capacity	Demand	Net Capacity
Standalone housing	556	1,629	1,194	436	2,741	-991
Terraced housing	172	-162	451	-613	432	-1,045
Apartments	13	-13	16	-30	68	-98

**Table 6.25.** Demand and capacity comparison by housing type over time. SNZ High Growth scenario.

Note: Overall figures may slightly differ due to rounding in the Residential Demand model.

The following tables break this down further to provide analysis of housing sufficiency for each housing area, contrasting supply and demand, across the two scenarios.

Housing Area / Type	Short Term: 2017-2020		Medium Term: 2020-2027		Long Term: 2027-2047	
	Baseline Demand	Net Capacity	Baseline Demand	Net Capacity	Baseline Demand	Net Capacity
<b>Urban South</b>	<b>95</b>	<b>113</b>	<b>140</b>	<b>-27</b>	<b>705</b>	<b>384</b>
Standalone housing	78	120	117	3	605	514
Terraced housing	17	-7	23	-30	100	-130
Apartments	0	0	0	0	0	0
<b>Trentham / Riverstone</b>	<b>249</b>	<b>519</b>	<b>688</b>	<b>-169</b>	<b>453</b>	<b>-622</b>
Standalone housing	152	616	397	219	303	-84
Terraced housing	97	-97	291	-388	150	-538
Apartments	0	0	0	0	0	0
<b>Upper Hutt CBD</b>	<b>55</b>	<b>573</b>	<b>175</b>	<b>398</b>	<b>554</b>	<b>-156</b>
Standalone housing	41	587	125	462	391	71
Terraced housing	8	-8	39	-47	97	-144
Apartments	6	-6	11	-17	66	-83
<b>Urban North</b>	<b>81</b>	<b>-57</b>	<b>197</b>	<b>-254</b>	<b>844</b>	<b>-900</b>
Standalone housing	72	-48	174	-222	795	-819
Terraced housing	9	-9	23	-32	49	-81
Apartments	0	0	0	0	0	0
<b>Akatarawa / Moonshine</b>	<b>8</b>	<b>559</b>	<b>24</b>	<b>535</b>	<b>615</b>	<b>-80</b>
Standalone housing	8	559	23	536	601	-65
Terraced housing	0	0	1	-1	14	-15
Apartments	0	0	0	0	0	0

**Table 6.26.** Baseline scenario sufficiency by area, type, and time period

Note: Overall figures may slightly differ due to rounding in the Residential Demand model.

Housing Area / Type	Short Term: 2017-2020		Medium Term: 2020-2027		Long Term: 2027-2047	
	High Growth Demand	Net Capacity	High Growth Demand	Net Capacity	High Growth Demand	Net Capacity
<b>Urban South</b>	<b>144</b>	<b>64</b>	<b>234</b>	<b>-170</b>	<b>714</b>	<b>232</b>
Standalone housing	120	78	197	-119	612	385
Terraced housing	24	-14	37	-51	102	-153
Apartments	0	0	0	0	0	0
<b>Trentham / Riverstone</b>	<b>297</b>	<b>471</b>	<b>766</b>	<b>-295</b>	<b>492</b>	<b>-787</b>
Standalone housing	191	577	463	114	331	-217
Terraced housing	106	-106	303	-409	161	-570
Apartments	0	0	0	0	0	0
<b>Upper Hutt CBD</b>	<b>137</b>	<b>491</b>	<b>314</b>	<b>177</b>	<b>586</b>	<b>-409</b>
Standalone housing	100	528	225	303	415	-112
Terraced housing	24	-24	73	-97	103	-200
Apartments	13	-13	16	-29	68	-97
<b>Urban North</b>	<b>146</b>	<b>-122</b>	<b>309</b>	<b>-431</b>	<b>856</b>	<b>-1,089</b>
Standalone housing	129	-105	272	-377	803	-982
Terraced housing	17	-17	37	-54	53	-107
Apartments	0	0	0	0	0	0
<b>Akatarawa / Moonshine</b>	<b>16</b>	<b>551</b>	<b>37</b>	<b>514</b>	<b>595</b>	<b>-81</b>
Standalone housing	16	551	36	515	581	-66
Terraced housing	0	0	1	-1	14	-15
Apartments	0	0	0	0	0	0

**Table 6.27.** High Growth scenario sufficiency by area, type, and time period

Note: Overall figures may slightly differ due to rounding in the Residential Demand model.

The above details the variances in demands for housing types for each Housing Area, as well as the effect greenfield areas have on overall sufficiency. For example, while it is estimated that there may be no housing sufficiency in the Urban South area in the medium term, the introduction of the Southern Growth area means that sufficiency in the Long Term remains positive. The same can also be said for the Akatarawa / Moonshine Housing Area, where the Gillespies Block provides a good base for housing capacity over 30 years.

For other areas, the need for housing and for alternative housing types is more prevalent. This is the case for the Trentham / Riverstone Housing Area where the sufficiency for standalone housing is largely met, however there is a shortfall of sufficiency for terraced housing across the whole 30 year time period, resulting in a shortfall of some 500 terraced houses.

The Urban North has the most urgent need for housing, with a shortfall across all time periods for almost all housing types.

## 7.4 Residential sufficiency conclusion

Historic consenting data has been used to estimate how overall capacity will be taken up. As previously reported, there was a median of 126 dwellings issued Code Compliance Certificates (CCCs) per year over the last five years. While there are a range of factors that may influence the take-up of dwelling capacity, apportioning historic construction rates against residential development capacity provides an insight into the likely ability to meet demand.

The following table shows what the yearly housing demand is under each growth scenario and compares this against the median historic yearly construction rate of 126 dwellings per year. This therefore estimates what proportion of UDC housing demand may be able to be constructed under this static production scenario:

Yearly demand scenario:	Short Term yearly demand	Proportion of housing that can be met	Medium Term yearly demand	Proportion of housing that can be met	Long Term yearly demand	Proportion of housing that can be met
<b>Baseline:</b>	163	-21.9%	175	-27.4%	317	-60.0%
<b>High Growth:</b>	247	-48.6%	237	-46.5%	324	-60.8%

**Table 6.28.** Comparison of historic growth rates versus projected housing demand

This indicates that in order for projected demand to be met, the rate of construction over the next 30 years will need to be increased by between approximately 20-60%.

The overall result indicates that Upper Hutt land use policies and incentives need to be adjusted in order to both accommodate an increased supply of housing, as well as a greater diversity of housing types. For example, while across the district there is seen to be a large feasible capacity of standalone dwellings, results show that there is an immediate under supply of terraced housing.

## 7.5 Visitor Accommodation

There is both limited demand and availability of visitor accommodation in Upper Hutt. Available accommodation is a mixture of medium to low density motel units, as well as private Airbnb facilities.

AirDNA Limited provides holiday rental data and has been used to detail the uptake of AirBnbs in Upper Hutt. The data provided shows that at the end of 2016 there were 16 available dwellings and 25 individual rooms available for rent with Upper Hutt, with occupancy rates of about 60% for each. It is worthwhile to note (while outside of the scope of the NPS timeframe) that from this period until the beginning of 2019, available dwellings increased to a total of 45, with 41 individual rooms available for rent. These are currently experiencing an occupancy of 58% and 54%, respectively.

Wellington City is still seen as the location of the majority of regional visitor accommodation demand. Reference is made to the associated visitor accommodation section in the Wellington City Chapter of this report.

## 8.0 Business Demand

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### Key Findings

- Upper Hutt will experience a significant increase in overall business demand in the short term. Most of this demand will be for industrial floor area.
- Employment will grow over the next 30 years, with Government and Industrial sectors having the largest shares in growth.
- Growth in the Industrial sector will be high in the short to medium term, until it transitions to meet Commercial business demand in the long term.

Reporting completed by Sense Partners concluded that the Wellington Region's economy is increasingly diverse, complex, and is stimulated by a high degree of human capital. While the population of the Wellington Region is far less than Auckland, due to these aforementioned factors, its economy is more closely resembled to this city than any other city in New Zealand. The following details some of the report findings, noting that 'Wellington Region' only includes those territorial authorities covered by reporting, being: Wellington City, Hutt City, Upper Hutt, and Kapiti Coast District Councils. Porirua is excluded due to already completing business demand reporting as part of its District Plan review process. A copy of this report is attached as **Appendix 1.5** to this HBA.

From a labour competition standpoint, the report highlights the need for Wellington to maintain lower housing costs than Auckland to ensure that after housing income remains high. At the time of writing, Wellington's average after housing income (personal) remains the highest in the country, at almost \$70,000, followed closely by Auckland at \$68,853, with the New Zealand Average at \$58,466.

Despite its overall positive economic standings, the competitiveness of the Wellington economy is declining. Average yearly employment growth between 2000 and 2016 across the region dropped, while the national growth rate remained buoyant, at 1.7% per year. For Upper Hutt, reporting shows that growth remained low at 0.2%; producing an overall competitiveness of -1.6%, when taking into account local industry specialisation of 0.1%.

Tracking the changes in sectoral employment overtime can be used as part of the assessment for future business demand.

For Upper Hutt, sectors which showed substantive positive growth in employment were: utilities; construction; and health, while the likes of primary industries; mining; finance; ICT & Media; and logistics all showed declines. Across the region, employment numbers historically spiked in 2008 and are only very recently on the rise; there were 245,800 employed persons in 2008 across the Wellington Region, with numbers only surpassing this in 2017, at 249,700 employed persons.

Unfortunately for Upper Hutt, the GFC has had far-reaching effects for the number of employed persons. While employment numbers also peaked in 2008, at 12,200, employment numbers have consistently declined since this period, only increasing between 2009 to 2010 and 2016 to 2017. These trends were also consistent with that experienced in Lower Hutt, which in 2017 had 91.6% of the employed persons in the district as in 2008.

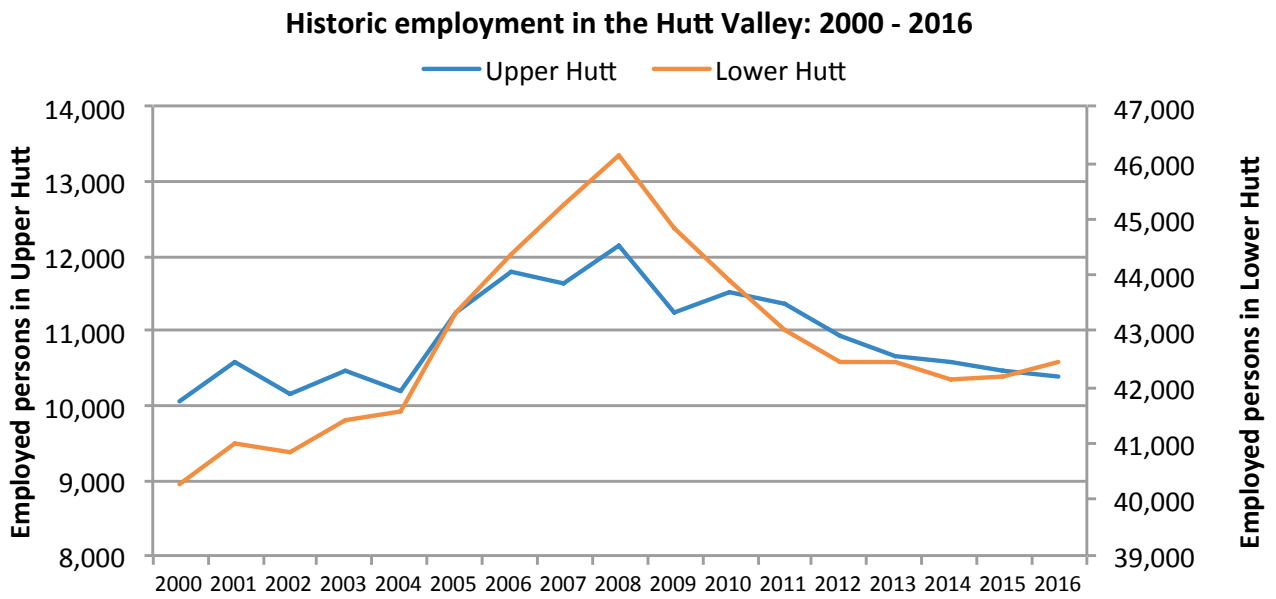


Figure 6.28. Historic employment in the Hutt Valley between 2000 and 2016

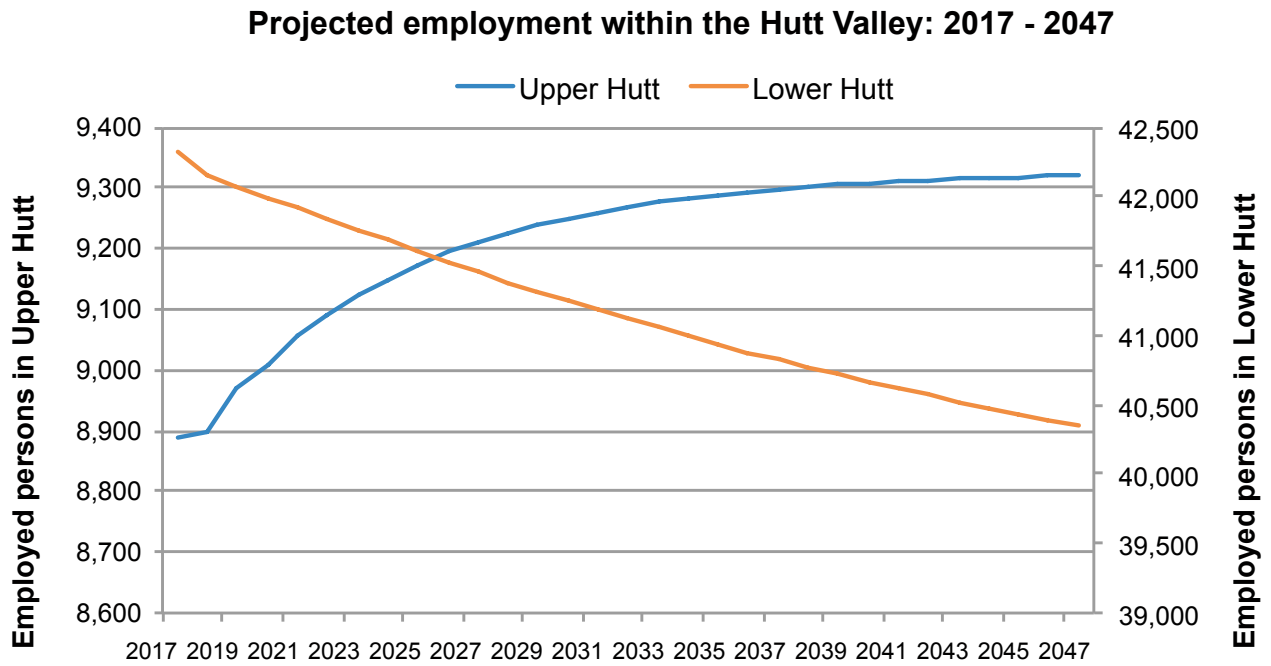


Figure 6.29. Projected employment in the Hutt Valley from 2017 to 2047

In assessing future growth, Sense Partners organised business categories into the following sectors:

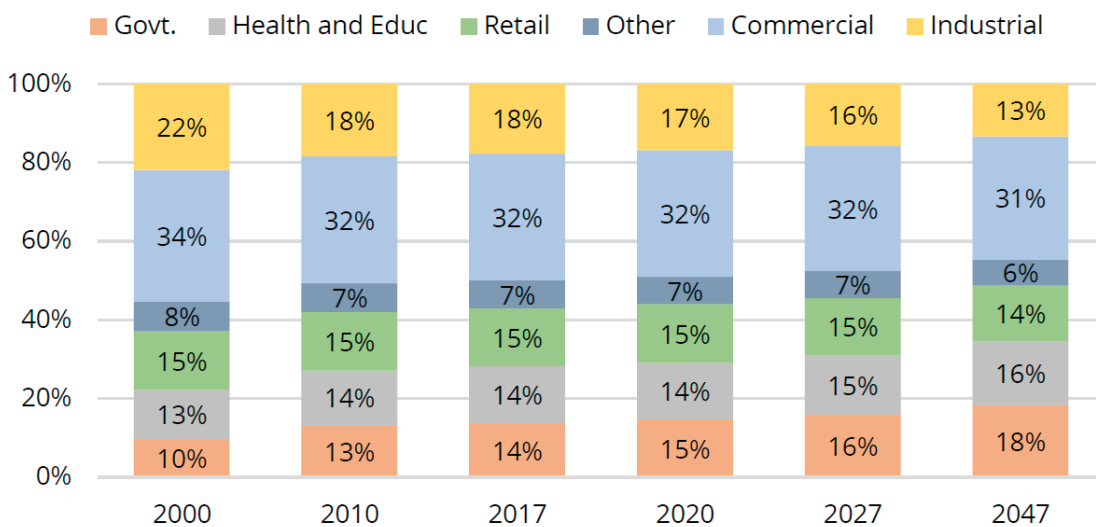
- Government;
- Commercial;
- Retail;
- Industrial;
- Health, Education, and Training (HET);
- Other business.

Anticipated changes to people employed in these sectors within Upper Hutt can be summarised as follows:

Business Sector	30 year change (#)	30 year change (%)
Government	211	8.12%
Commercial	-64	-4.23%
Retail	13	0.67%
Industrial	315	12.60%
Health, Education, and Training (HET)	-30	-1.88%
Other	0	0%
<b>TOTAL:</b>	<b>445</b>	<b>4.12%</b>

**Table 6.29.** Overview of projected sectoral employment in Upper Hutt (Sense Partners, 2018)

Across the region, the share of employment for the government sector is set to experience the greatest proportional growth (increasing 4%), with the industrial sector declining the most, with a 5% decline.



Source: Statistics New Zealand, Sense Partners

**Figure 6.30.** Share of employment in Wellington region, by type, over select years (Sense Partners 2018, p 62)

In terms of economic output, reporting also projects out historic rates of GDP growth and historic rates of productivity to determine economic output for each district. Projections in this regard for Upper Hutt are positive, with an overall strong rate of economic growth and a strong similarity between both the productivity and GDP growth rates. These estimate that the economic output of Upper Hutt is expected to reach \$1 billion by 2035, hitting between \$1.2 to \$1.3 billion by 2047.

An iterative process was used by Sense Partners to translate economic, employment, and population growth into business land demand. This process involved mapping each business activity forecast (as above), estimated floor space per worker, calculating the required building footprint, and translating this into business land demand.

A critical component of this was estimating the anticipated building site coverage for future business demand. To achieve this, Sense Partners used LiDAR (Light Detection and Ranging) information to calculate the existing building footprint to

determine the average Site Coverage Ratio (SCR) per zone<sup>(168)</sup>. In doing so, this applied an SCR to the two business zones contained within the Upper Hutt District Plan. This resulted in the following SCR:

<b>Business Commercial:</b>	0.40
<b>Business Industrial:</b>	0.24

Reference is made to the use of SCR figures in Business Capacity modelling section.

### 8.1 Business demand results

Business land demand results are provided in the same short, medium, and long term intervals mandated by the NPS-UDC.

Under the policy, projected supply is required to be inflated by 20% over the short to medium term, and 15% over the long term. It is therefore important to note that all results are shown at the required inflated rates.

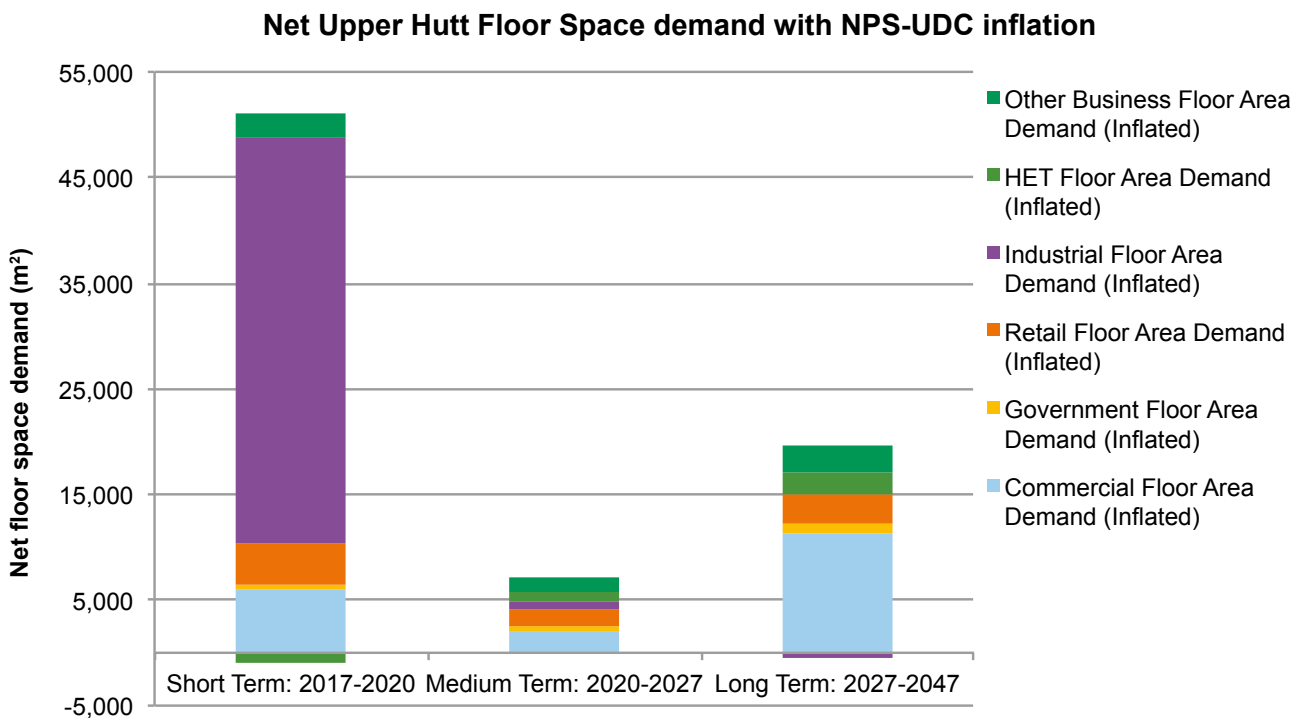


Figure 6.31. Projected net Upper Hutt business demand by floor space, with inflation

168. Figure 121, Sense Partners (2018), Demand for business land in Wellington Region. The SCR calculate the average site coverage of each zone and is expressed as a ratio of building coverage to site area.



### Proportional net Upper Hutt business floor area demand with NPS-UDC inflation

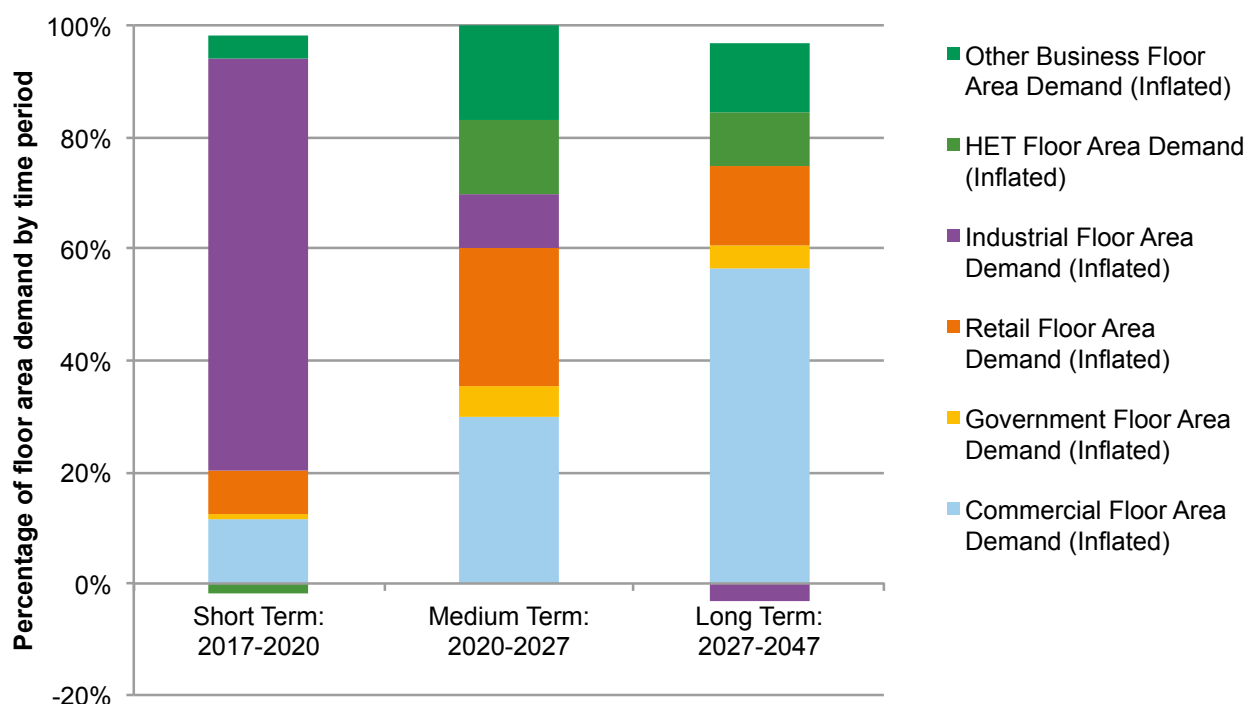


Figure 6.32. Projected net Upper Hutt proportional business demand by floor space, with inflation

Business Type	Short Term: 2017-2020	Medium Term: 2020-2027	Long Term: 2027-2047	Total Demand
Commercial	5,941	2,096	11,390	19,427
Government	520	404	769	1,693
Retail	4,020	1,735	2,881	8,636
Industrial	38,366	698	-602	38,462
HET	-980	923	1,964	1,907
Other Business	2,177	1,206	2,509	5,892
<b>Total</b>	<b>50,043</b>	<b>7,063</b>	<b>18,911</b>	<b>76,017</b>
<b>Average yearly demand</b>	16,681	1,009	1,891	2,534

Table 6.30. Overall inflated net business floor area demand, by time and time

Business Type:	Short Term: 2017-2020	Medium Term: 2020-2027	Long Term: 20207-2047	Total
<b>Commercial</b>	5,941	2,096	11,390	19,427
<b>Government</b>	520	404	769	1,693
<b>Retail</b>	8,040	3,470	5,762	17,272
<b>Industrial</b>	95,915	1,746	-1,506	96,155
<b>HET</b>	-1,307	1,231	2,619	2,543
<b>Other</b>	2,902	1,607	3,346	7,856
<b>Total</b>	112,011	10,556	22,380	144,946
<b>Average yearly demand</b>	37,337	1,508	2,238	4,832

**Table 6.31.** Overall inflated net business land demand, by type and time

Business demand figures show how Upper Hutt is still experiencing significant correction in overall business demand following the impacts of the GFC, with yearly demand in the short term being about 16 times that which is anticipated in the medium term.

A large proportion of this demand is anticipated to come from industrial floor space in the short term, with this vastly reducing over the medium term and then receding over the long term. The inverse is true for commercial demand, which continues to see steady growth as an overall proportion of demand over the 30 year time period.

When aggregating demand on a yearly basis, floor area demand for most of the remaining business types settles over the medium and long term:

Business Type	Short Term: 2017-2020	Medium Term: 2027	Long Term: 2027-2047
<b>Commercial</b>	1,980	299	1,139
<b>Government</b>	173	58	77
<b>Retail</b>	1,340	248	288
<b>Industrial</b>	12,789	100	-60
<b>HET</b>	-327	132	196
<b>Other Business</b>	726	172	251

**Table 6.32.** Aggregated yearly floor space demand by business type

It is important to remember the differences between results expressed as demand by land and demand by floor area, and what these differences mean. Changes in demand (for either floor space or land) do not necessarily reflect changes in economic activity. This is due to a number of factors.

Changes in business land demand are strongly linked to business typology. For example, it can reasonably be anticipated that the majority of industrial developments are contained to a single level, resulting in a strong relationship with business land demand. This is in contrast with the land demand for commercial businesses, where demand is more likely to result in vertical expansion (i.e. additional floors), which would not be reflected in land demand, and instead only be shown in an uptake in floor demand.

These results can therefore be used to evaluate the differences in the rates of demand anticipated between floor space demand and land demand. Results shows that the likes of Commercial and Government demand have a 1:1 relationship between floor area and land demand, suggesting that demand will likely be for single level typologies. All other typologies see a greater demand for land than floor space, which may suggest there may not be as much of an appetite for infill developments and instead taking advantage of any available vacant land.

### Upper Hutt retail business demand

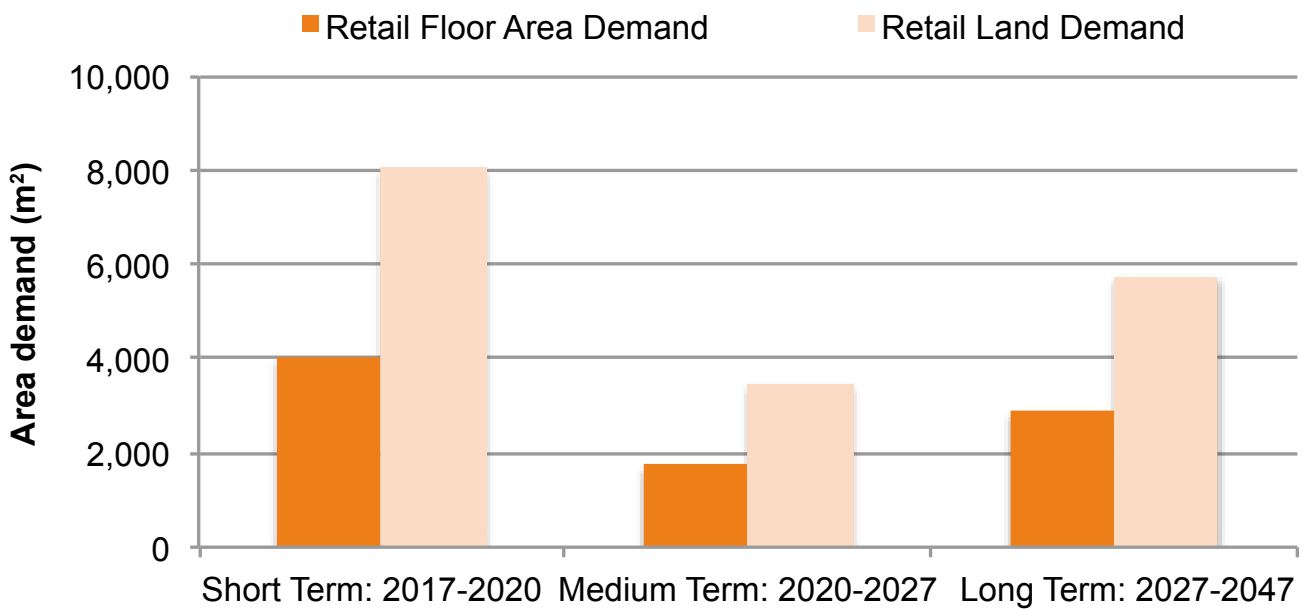


Figure 6.33. Comparison of retail floor area and land demand

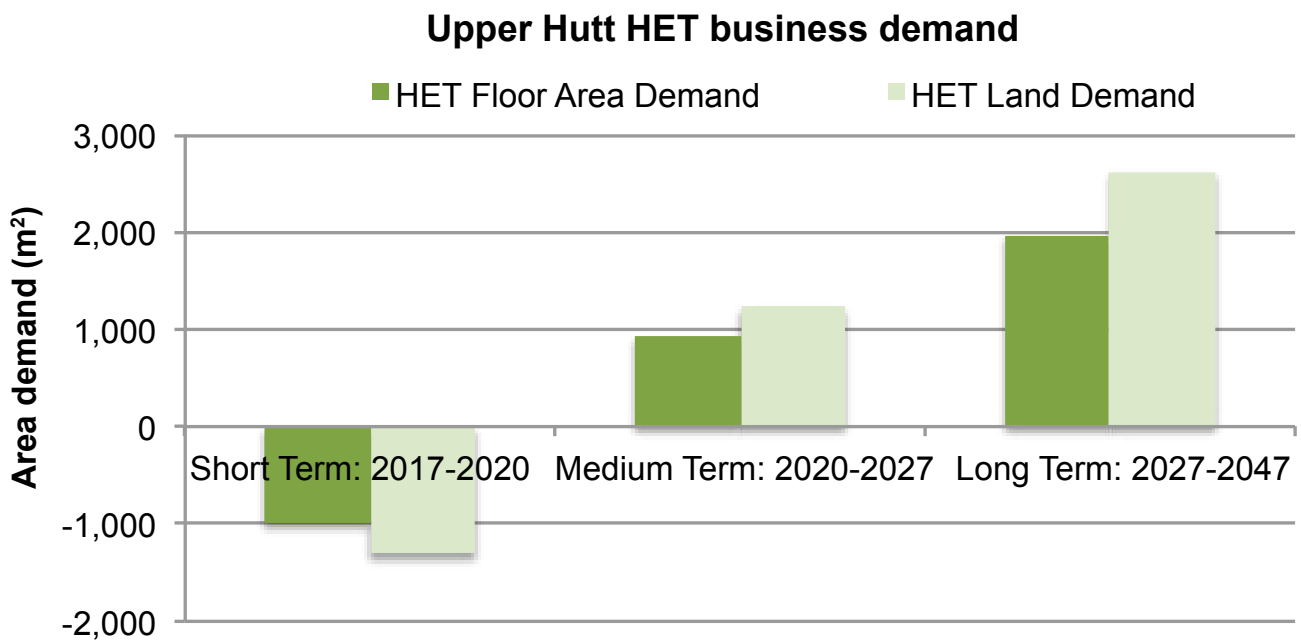


Figure 6.34. Comparison of Health, Education, and Training (HET) floor area and land demand

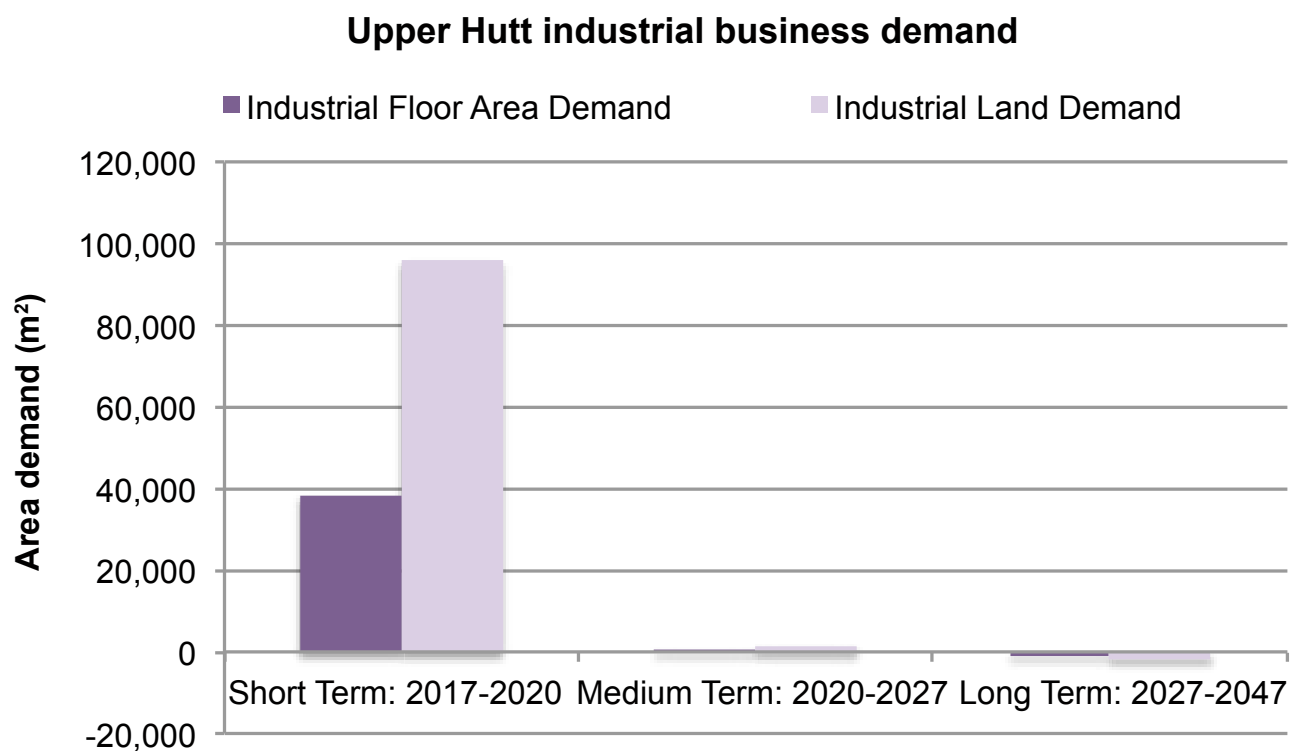


Figure 6.35. Comparison of Health, Education, and Training (HET) floor area and land demand

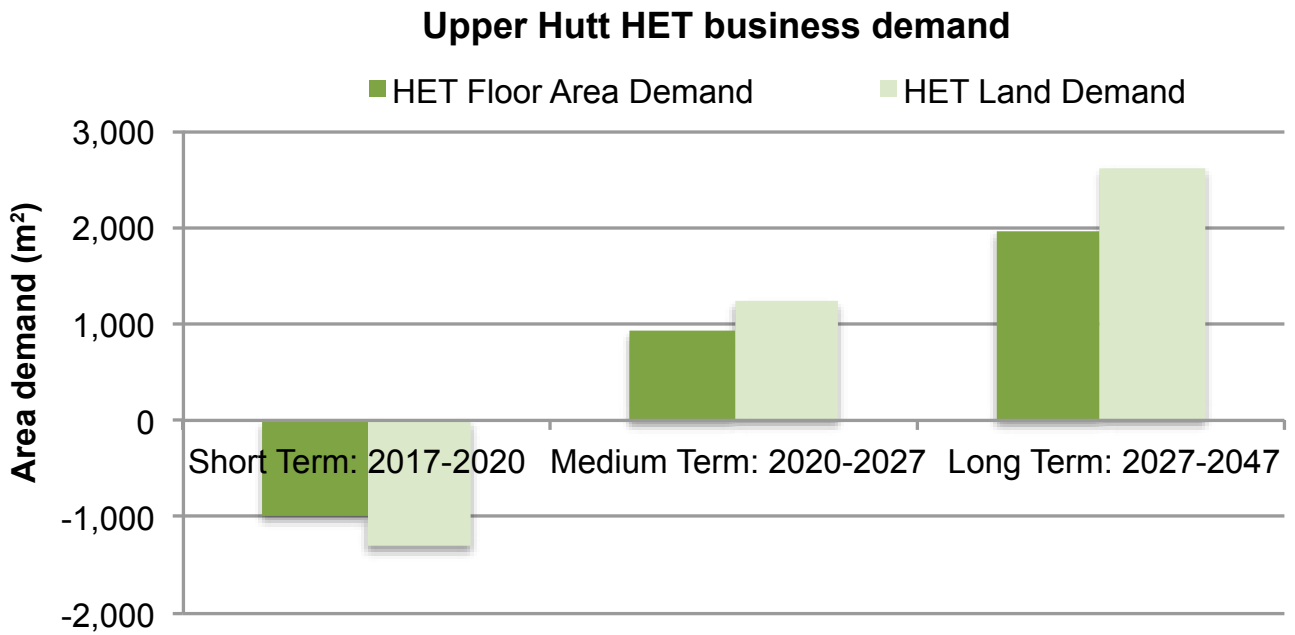


Figure 6.36. Comparison of 'Other business' floor area and land demand

## 9.0 Business Capacity

### Key Findings

- Upper Hutt has a large amount of available business development capacity, with only 44.3% of its 894,451m<sup>2</sup> business floor area capacity currently occupied.
- Almost 80% of commercial business capacity is within the CBD. A significant proportion of this capacity lies in infill opportunities being taken up (upwards), with only limited opportunities for vacant land development.
- Industrial business capacity is spread across the District; however Alexander Road has just over 50% of the total capacity.

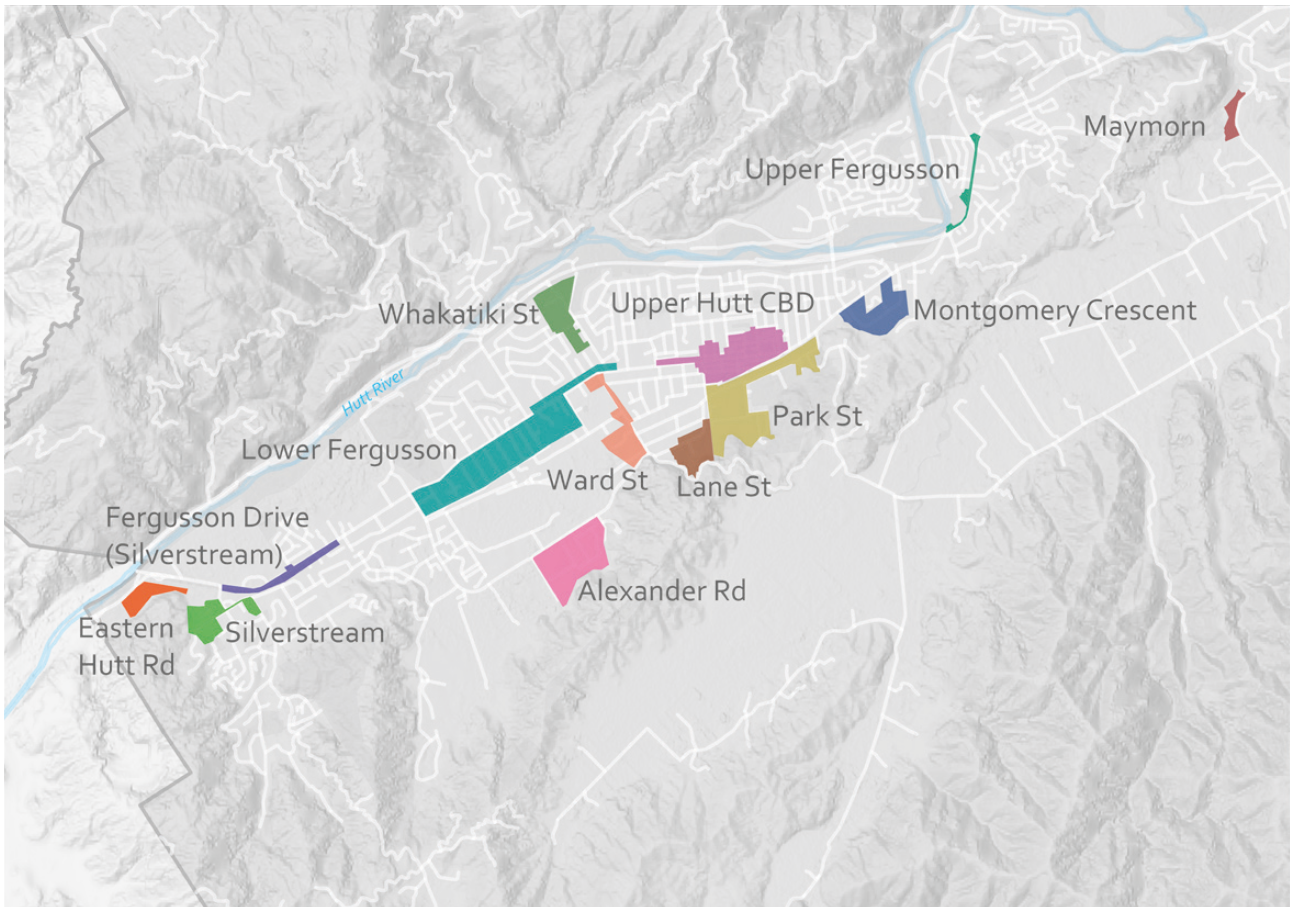
The assessment of business capacity was informed through the methodology established in the previous Business Demand reporting and applied consistently across the participating Wellington Councils. This methodology is fully described in the regional chapter of this HBA and associated appendices.

The areas UHCC assessed were based on 13 defined business clusters around Upper Hutt. These areas were categorised based on underlying zoning, in conjunction with established business characteristics and their boundaries. These areas are:

#	Site Name	Typology
1	Maymorn Road	Industrial
2	Upper Fergusson Drive	Suburban Commercial
3	Montgomery Crescent	Industrial
4	Park Street	Industrial
5	CBD	Commercial
6	Lane Street	Commercial-Industrial
7	Ward Street	Commercial
8	Whakatiki Street	Industrial
9	Lower Fergusson	Suburban Commercial-Industrial
10	Alexander Road	Industrial
11	Fergusson Dr Silverstream	Commercial
12	Silverstream	Commercial-Industrial
13	Eastern Hutt Road	Industrial

**Table 6.33.** UHCC Business Areas

Modelled business areas are shown below:



**Figure 6.37.** Upper Hutt urban zoning and identified Business Areas

When considering these areas, it is important to remember that this is not an exhaustive list of zoned business land in Upper Hutt. For instance, listed areas do not include isolated business zoned sites in suburban areas, due to the difficulties of agglomeration for the purposes of feasibility assessment, their overall low yield, and the degree to which sites have already been developed. Their inclusion would therefore present several difficulties without making any discernible difference to overall results.

Additionally, Business Areas only seek to capture the local business groupings, and does not necessarily identify the extent of business zoning itself. Therefore, any business capacity, feasibility, and/or sufficiency result, only relates to the commensurate business zoning within Business Areas and does not consider any other zoning that may otherwise exist within a Business Area. This means that for Upper Hutt, only the Business Commercial and Business Industrial zones are considered. The Special Activity Zone does contain some existing business activities, however this is limited and the zone largely captures existing land use, therefore has not been included in analysis.

## 9.1 Capacity calculation process

For clarity, capacity output results can be described as follows:

Capacity scenario	Description
Redevelopment	The entire site is cleared via demolition and built to its maximum occupied potential, both horizontally and vertically. This adopts the SCR established via the Business Demand reporting, accounting for the likes of generic setback requirements and parking spaces.
Infill	Retaining the existing building footprint and established height, the remainder of the sites is built to its maximum occupied potential, again adopting the limitations of the established SCR for the zone.
Vacant land	Built as per redevelopment scenario.

**Table 6.34.** Capacity figure descriptions

Business capacity results are provided in building floor area. To achieve this, the UHCC building department estimated generic floor heights for the two business types captured by aforementioned business zoning. The two generic heights provided were as follows:

**Commercial: 3.5m**  
**Industrial: 7m**  
 (incorporating a mezzanine office space)

To then calculate the capacity of floor area for a vacant site, for instance, the anticipated building platform was calculated based on the SCR, and then extruded to permitted height limits. The total height was then divided by the commensurate floor height to determine the anticipated number of floors.

A number of limitations of this method were discovered during the development of the business capacity results. Firstly, the Business Demand modelling adopted a single SCR figure for each business zoning. For Upper Hutt, this means only two SCR figures were produced, representing the two business zones represented in the Upper Hutt District Plan: Business Commercial and Business Industrial. This means that the SCR figures for Upper Hutt lacked local relevance for the likes of the CBD area, where densities differ from more suburban Business Commercial zones.

Secondly, the final capacity figure was based on theoretical plan-enabled capacity, rather than realised development that would be practically anticipated. It was important to acknowledge this at the onset due to the way in which business feasibility was applied through the MCA (see following section for further detail). When considering plan-enabled provisions, this difference between theoretical and realised capacity was again most pronounced in the CBD. This was due to permissive rules in the plan that allowed for a generous building height of

up to 40m for a proportion of the CBD. Applying the assumed floor height for commercial buildings, this equates to an 11 storey building.

Lastly, there were difficulties in allocating capacity in mixed used areas where multiple uses may have been anticipated. A clear case was in the Business Commercial zone, where any residential activity above the first floor is a permitted activity, allowing for multiple uses on a single property parcel.

Several steps were undertaken to overcome these limitations, being:

1. A new SCR was produced for all Business Commercial zoned properties in the CBD. This was based on calculating existing occupation, with references to SCR figures for similar CBD SCR figures for other councils. A final SCR of 0.6 was chosen (remaining Business Commercial sites left with an SCR of 0.4), which was commensurate with the Lower Hutt CBD SCR of 0.62.
2. The effects of the permissive nature of height controls in the CBD were tempered to result in a capacity that would be more realistic (realised floors). This median plan-enabled number of floors of 5.5 across the CBD was reduced to 4 floors. This further reduction reflects the existing built form, 99% of which is made up of 1-2 storey buildings.
3. The proportion of residential occupation in Business Commercial zones was determined by analysing current commercially based populations and discussions with consenting staff over historic and current level of interest in residential occupation. An occupation rate of 20% was agreed on for this area.

An overview of this process is provided as **Appendix 1.7** to this HBA.



## 9.2 Capacity Results

Overall capacity results were calculated for each Business Area, separating capacity by commercial and industrial zones. Results were also further separated by capacity scenario to describe floor area capacity for infill development, vacant land development, and full redevelopment capacity. Using this last scenario, an overall percentage of total occupied capacity is also provided.

Overall capacity results and a summary of occupation is provided below:

#	Site Name	Current Total Site Floor Area Capacity (m <sup>2</sup> )	Total Redevelopment Floor Area Capacity (m <sup>2</sup> )	Current occupation of total potential floor area capacity
1	Maymorn Road	12,723	33,744	62.29%
2	Upper Fergusson Drive	1,672	3,924	57.39%
3	Montgomery Crescent	19,503	71,593	72.76%
4	Park Street	22,866	77,884	70.64%
5	CBD	262,665	366,570	28.35%
6	Lane Street	22,212	51,035	56.48%
7	Ward Street	12,316	16,564	25.64%
8	Whakatiki Street	12,431	57,058	78.21%
9	Lower Fergusson	21,444	45,776	53.15%
10	Alexander Road	87,438	113,722	23.11%
11	Fergusson Dr Silverstream	7,601	14,812	48.69%
2	Silverstream	15,056	41,769	63.95%
13	Eastern Hutt Road	0	0	N/A
<b>TOTAL:</b>		<b>497,928 m<sup>2</sup></b>	<b>894,451 m<sup>2</sup></b>	<b>44.33%</b>

**Table 6.35.** Overall business area capacity and occupation

These results highlight that just over half of Upper Hutt's total business capacity is currently occupied, with approximately 500,000m<sup>2</sup> of an overall potential capacity of almost 900,000m<sup>2</sup> of floor space currently occupied. Here, total site floor area capacity combines both infill capacity and vacant land development capacity.

Results with 'O' (zero capacity) generally mean that the area is not zoned for the business type, or other restrictions exist which mean it was excluded from analysis. The latter is the case for Business Area #13 - Eastern Hutt Road where the

intersection of a designation with the allotment means the entire lot was excluded from the analysis, whilst it is zoned for industrial purposes.

When applying the average floor area of commercial and industrial premises, the current business capacity is able to theoretically cater for an additional 410 commercial business and 99 industrial businesses<sup>169</sup>.

169. At an average commercial building floor area of 808m<sup>2</sup> and average industrial building floor area of 1,672m<sup>2</sup>.

Site Name	Commercial Capacity	Industrial Capacity	Overall Business Capacity
Maymorn Road	0.00%	7.52%	2.54%
Upper Fergusson Drive	0.50%	0.00%	0.34%
Montgomery Crescent	2.63%	6.47%	3.92%
Park Street	0.72%	12.31%	4.59%
CBD	79.20%	0.00%	52.75%
Lane Street	3.07%	7.23%	4.46%
Ward Street	3.71%	0.00%	2.47%
Whakatiki Street	0.00%	7.48%	2.50%
Lower Fergusson	5.97%	0.99%	4.31%
Alexander Road	0.00%	52.59%	17.56%
Fergusson Dr Silverstream	2.29%	0.00%	1.53%
Silverstream	1.89%	5.29%	3.02%
Eastern Hutt Road	0.00%	0.00%	0.00%

**Table 6.36.** Proportional overall business capacity

Analysing proportional available capacity by business area provides an insight into likely activity centres for future development. The above shows how the vast majority of commercial capacity lies within the CBD (79%), with smaller pockets in Lower Fergusson (6%), and Ward Street (3.7%), amongst others.

Available industrial capacity is more spread. Five areas contain 5% to 7.5% of industrial capacity, and two sites contain over 12% of industrial capacity. Alexander Road provides the most industrial capacity, at just over 50%, representing over 17% of overall business capacity. Other prominent areas include Park Street (12%), Whakatiki Street (7.5%), and Maymorn Road (7.5%).

When assessing overall floor area capacity, it is important to highlight the different capacity figures between development scenarios. The following tables show the make-up of overall floor area capacity for infill and vacant land development scenarios, noting the overall redevelopment capacity for context.

#	Site Name	Infill Commercial Floor Area Capacity (m <sup>2</sup> )	Vacant Commercial Floor Area Capacity (m <sup>2</sup> )	Redevelopment Floor Area Commercial Capacity (m <sup>2</sup> )
1	Maymorn Road	0	0	0
2	Upper Fergusson Drive	1,672	0	3,924
3	Montgomery Crescent	8,751	0	14,690
4	Park Street	2,399	0	3,734
5	CBD	220,232	42,433	366,570
6	Lane Street	10,192	0	10,272
7	Ward Street	9,059	3,257	16,564
8	Whakatiki Street	0	0	0
9	Lower Fergusson	16,790	3,010	35,442
10	Alexander Road	0	0	0
11	Fergusson Dr Silverstream	5,822	1,779	14,812
2	Silverstream	6,262	0	17,362
13	Eastern Hutt Road	0	0	0
<b>TOTAL:</b>		<b>281,179 m<sup>2</sup></b>	<b>50,480 m<sup>2</sup></b>	<b>483,370 m<sup>2</sup></b>

**Table 6.37.** Commercial Business capacity by infill, vacant land, and redeveloped

#	Site Name	Infill Industrial Floor Area Capacity (m <sup>2</sup> )	Vacant Industrial Floor Area Capacity (m <sup>2</sup> )	Redevelopment Floor Area Industrial Capacity (m <sup>2</sup> )
1	Maymorn Road	8,917	3,806	33,744
2	Upper Fergusson Drive	0	0	0
3	Montgomery Crescent	8,546	2,206	56,903
4	Park Street	7,390	13,077	74,150
5	CBD	0	0	0
6	Lane Street	5,599	6,421	40,763
7	Ward Street	0	0	0
8	Whakatiki Street	11,402	1,029	57,058
9	Lower Fergusson	1,644	0	10,334
10	Alexander Road	2,704	84,734	113,722
11	Fergusson Dr Silverstream	0	0	0
2	Silverstream	8,794	0	24,407
13	Eastern Hutt Road	0	0	0
<b>TOTAL:</b>		<b>54,996 m<sup>2</sup></b>	<b>111,273 m<sup>2</sup></b>	<b>411,081 m<sup>2</sup></b>

**Table 6.38.** Industrial Business capacity by infill, vacant land, and redeveloped

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The above demonstrates the contrasting scenarios commercial and industrial capacity results rely on. Commercial capacity is heavily weighted towards infill development, representing about 85% of overall capacity, whereas two thirds of industrial capacity is instead captured through vacant land.

These differences are largely due to the form of respective business types: commercial space is able to be multileveled, with industrial usually contained to a single level (or 1.5 levels with mezzanine across some of the ground floor). These differences are important as it highlights to council the value placed on easily developed business sites, such as vacant land. In this respect, the low levels of vacant commercial land means it is important for sites to best utilise available capacity on these sites by developing upwards. These form factor differences are also detailed in Business Demand results, which detail differences between land and floor space demand.

## 10.0 Business Feasibility and Sufficiency

### Key Findings

- Multi-Criteria Analysis scoring shows that Upper Hutt is considered to be a favourable place to develop and operate a business. There is also a strong alignment between feasibility scores and areas of high business floor space capacity.
- Upper Hutt has sufficient business development capacity to meet demand, with a total net capacity of just over 420,000m<sup>2</sup> of floor space still available in 2047, when incorporating both infill and vacant land development opportunities.
- There is a limited amount of vacant commercial floor space available overall, however scenario testing shows that even when 100% of demand is attributed to only vacant land capacity, Upper Hutt is still anticipated to have sufficient commercial capacity, with almost 13,000m<sup>2</sup> of floor space available in 2047. Good

### 10.1 Feasibility

Stakeholders from the local land development business and commerce sectors came together to form a panel to evaluate the feasibility of developing Upper Hutt Business Areas. Panellists were provided with remote access to an online web-map system, which detailed relevant District Plan layers, Business Areas, and other layers such as public transport, natural hazards, and residential demand results, as a means to assist in the evaluation of business area feasibility.

The panel met at UHCC on 29 January 2019 to evaluate Business Areas using the Multi-Criteria Analysis technique described earlier in this chapter. This assessment process was independently facilitated by Andrew Macleod of The Property Group, and was assisted by UHCC planning staff from consenting and policy teams.

Panellists were asked to score each site on a range of parameters that had been regionally agreed as those likely to influence the feasibility of business operation. Each score was out of 5, with 1 being the lowest score (i.e. poor level of feasibility). The panel discussed each parameter and a final score was agreed upon. It should be noted that the panel did not enter a score for 'Proximity to Seaport' and 'Proximity to Airport' criteria, as it was considered to have the same impact

across Upper Hutt and therefore not have a discernible impact on businesses who had already chosen to be located in Upper Hutt. A score of 2 was therefore entered for these following the panel session.

An overview of each business area is provided in **Appendix 6.6**, with an overview of the MCA process attached as **Appendix 1.6** to this HBA.

### 10.2 Business feasibility conclusions

Overall, scoring for Upper Hutt Business Areas showed that above all, access to labour supply and consumers / markets ranked highly throughout scoring, attaining average scores of 4.5 or higher across Business Areas. Other factors that also were seen to have a positive influence were Upper Hutt's accessibility to major roading corridors (4.4 average), parking availability and accessibility (4.3 average), and resilience to natural hazards (4.1 average).

These higher scores were largely driven by the conclusion of panellists that the close proximity, quantity, and demographic makeup of residential populations made for a secure and reliable labour force and consumer market. The ability to transit both consumers and business goods was also aided by the ease of accessibility via SH2, SH58, and the rail corridor, as well as the connectivity of local roading networks. Lastly, the low susceptibility Upper Hutt has to natural hazards was seen as a positive by panellists, with low risk of liquefaction, as well as the easy to develop business sites on relatively flat land. Flooding was the main identified natural hazard risk. When compared to other areas in Greater Wellington, the panellist found that Upper Hutt stood out in relation to these factors.

Parameters that did not rank so highly were: the proximity to air and seaports (2.1 average); developability/functionality (2.9 average); and supporting services/businesses in the area (3.1 average).

Low scoring for these parameters was firstly due to the proximity of Upper Hutt from other main business centres in Greater Wellington, but also the ability to easily connect with these centres. For example, the inaccessibility of rail yards (despite being in close proximity to the trunk line), and congestion issues over SH2 at peak times.

Secondly, panellists also highlighted issues with the 'product that was on offer', with dated buildings and physical infrastructure impeding investment, as well as a possible disorganisation of urban form and land uses. This was most relevant for the CBD area where existing building structures (and the quality thereof) made them difficult and costly to develop. This last factor was also exacerbated by the lack of larger anchor businesses, which made it difficult to justify higher rents to recoup any investment costs, as well as the low levels of weekday populations due to high commuter rates.

Despite the above, Upper Hutt Business Areas scored well overall, with a median score across all parameters of 4 out of 5, or a feasibility rate of 73%, when calculated as a percentage.

#	Site Name	Max Score	Total Score	Median Score	Score as percentage	Existing business type
5	Upper Hutt CBD	70	59	5	84.30%	Commercial
10	Alexander Road	70	56	4.5	80.00%	Industrial
7	Ward Street	70	56	4	80.00%	Commercial
4	Park Street	70	55	4	78.60%	Industrial
1	Maymorn	70	54	4	77.10%	Industrial
6	Lane Street	70	53	4	75.70%	Commercial-Industrial
3	Montgomery Crescent	70	51	4	72.90%	Industrial
13	Eastern Hutt Road	70	49	4	70.00%	Industrial
8	Whakatiki Street	70	49	4	70.00%	Industrial
11	Fergusson Drive, Silverstream	70	48	3.5	68.60%	Commercial
12	Silverstream	70	48	3.5	68.60%	Commercial-Industrial
2	Upper Fergusson	70	44	3	62.90%	Suburban Commercial
9	Lower Fergusson	70	44	3	62.90%	Suburban Commercial-Industrial

**Table 6.39.** Business Areas ranked by overall score

Ranking overall Business Areas end-to-end shows the distribution of business types, as well as potential clusters of low or high feasibility rates. This shows that all industrial areas have a moderately high level of feasibility, whereas commercial areas generally score lower. The exception is the Upper Hutt CBD, which ranked the highest of all Business Areas.

Of note is that all business on Fergusson Drive had a below average score, at a rate of between 63% and 67% feasible, when calculated as a percentage. This is a potential area where there could be a greater focus on business generation or consideration of alternative uses.

Overall, Upper Hutt Business Areas scored well for feasibility. One can generally conclude that based on the MCA evaluation, in most areas it would be feasible to develop and operate a business. As above, four sites produced scores below 70%, which may mean that operating a business in these areas may be more challenging than other sites. These areas mostly cater for commercial use and represent less than 10% of all overall business floor area capacity; therefore it is unlikely to have a discernible impact on overall sufficiency.

Lastly, it is important to remember that the feasibility of business capacity only evaluates the prospects of operating a business in an area, rather than the feasibility of developing the business premises.

### 10.3 Sufficiency

Business capacity calculations showed that when combining infill and vacant land potential, there was an estimated 332,467m<sup>2</sup> of commercial floor space and 169,150m<sup>2</sup> of industrial floor space available in Upper Hutt.

The following projects predicted business demand against floor capacity to estimate sufficiency. In doing so, projections aggregate the business types described in the Sense Partners reporting as follows:

Upper Hutt Zoning	Sense Partners Business Type
Business Commercial	• Commercial
	• Government
	• Retail
	• Health, Education, and Training (HET)
	• Other <sup>(170)</sup>
Business Industrial	• Industrial

**Table 6.40.** Aggregation of Business Demand types

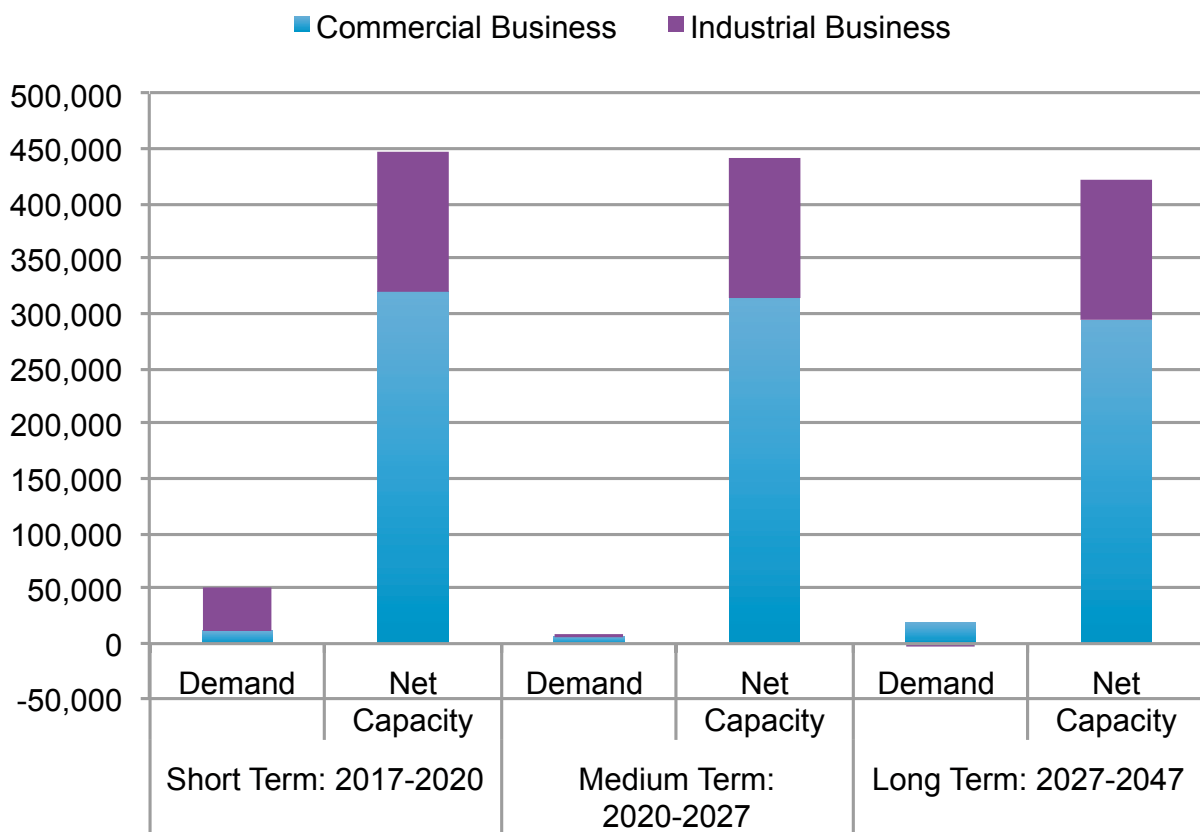
Business Type	Short Term: 2017-2020		Medium Term: 2020-2027		Long Term: 2027-2047	
	Demand	Net Capacity	Demand	Net Capacity	Demand	Net Capacity
Commercial Business	11,677	319,982	6,365	313,617	19,514	294,103
Industrial Business	38,366	127,903	698	127,205	-602	127,807
<b>Total Business</b>	<b>50,043</b>	<b>447,885</b>	<b>7,063</b>	<b>440,822</b>	<b>18,911</b>	<b>421,911</b>

**Table 6.41.** Business floor area sufficiency

When considering overall capacity, Upper Hutt is able to meet the anticipated business demand over the next 30 years: there is a net commercial floor area demand of 37,556m<sup>2</sup> with an overall 2017 capacity of 331,659m<sup>2</sup>, and an industrial floor area demand of 38,462m<sup>2</sup> with an overall 2017 capacity of 166,629m<sup>2</sup>.

170. It is again acknowledged that the likes of 'Other Business' may currently be captured by the Special Activity Zone.

## Business demand and net capacity: 2017-2047



**Figure 6.38.** Total Upper Hutt business demand and net capacity from 2017 to 2047

The above combines both infill and vacant land capacity to estimate overall sufficiency. This makes the assumption that business property owners with established buildings would utilise available capacity and seek to undertake an infill development, while landowners of vacant business land would undertake developments that would best utilise available capacity. There may be different considerations and motivations business property owners have to undertake development, which would alter the ability of owners to best utilise available capacity.



The following therefore tests business land sufficiency when 100% of business floor area demand is attributed to either infill capacity or vacant land capacity.

### Commercial and Industrial Floor Area Capacity with demand attributed to either infill or vacant land capacity (Upper Hutt, 2017 to 2047)

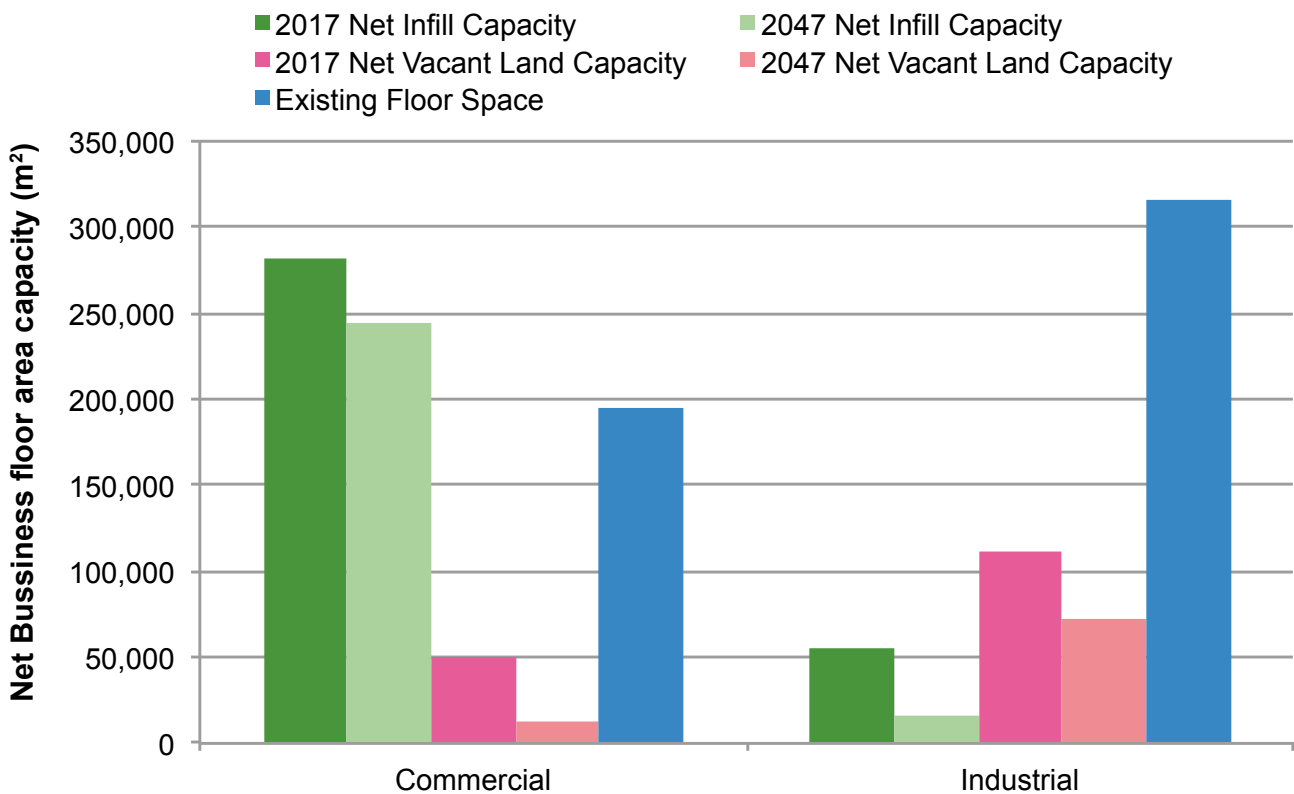


Figure 6.39. Comparison of net capacity scenarios under either infill or vacant land uptake from 2017 to 2047

The above demonstrates that under these scenarios there would be limited remaining supply of vacant commercial land, and under an infill scenario industrial floor capacity would also be limited.

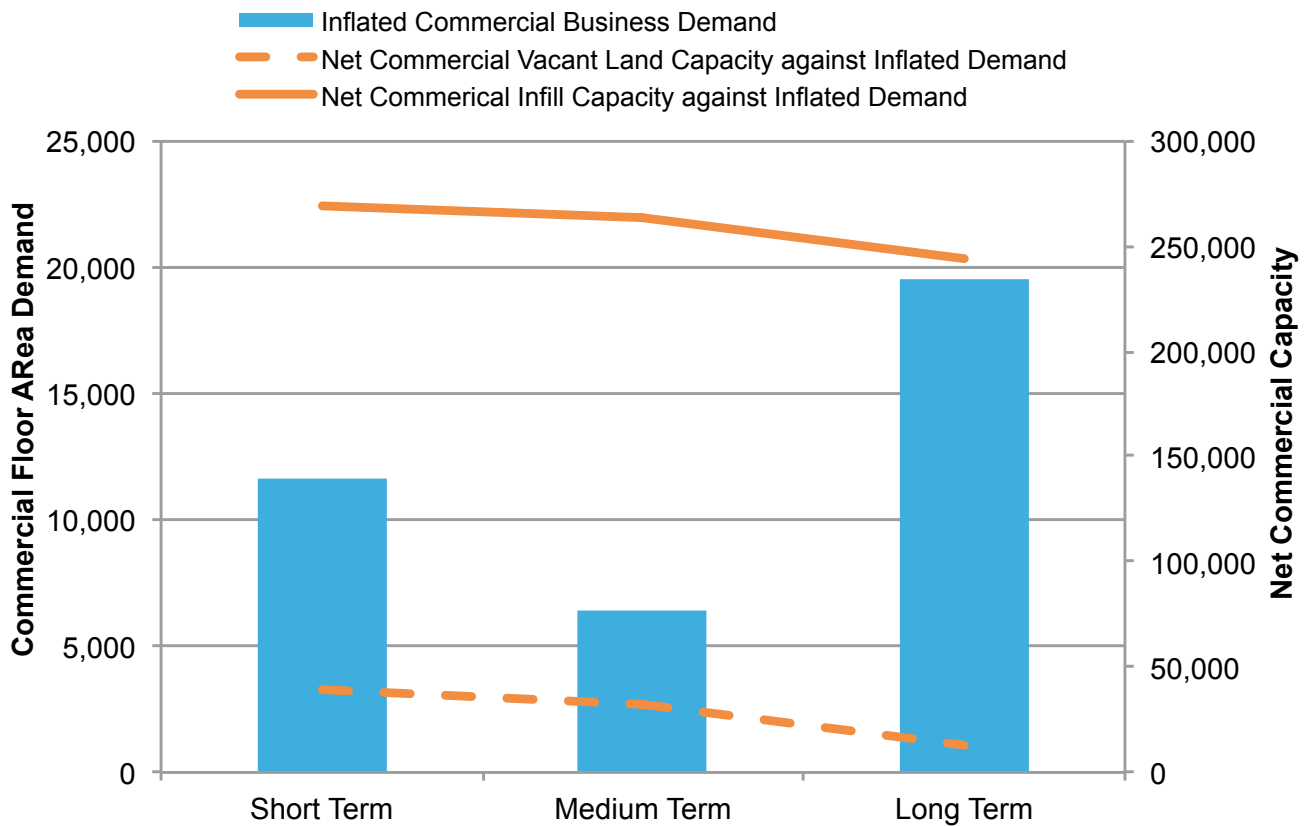
The infill and vacant land scenarios are summarised below:

	Commercial Net Capacity	Change (%)	Remaining capacity (%)	Industrial Net Capacity	Change (%)	Remaining capacity (%)
2017 Infill Net Capacity	281,179 m <sup>2</sup>	-13.36%	86.6%	54,996 m <sup>2</sup>	-70.0%	30.1%
2047 Infill Net Capacity	243,624 m <sup>2</sup>			16,534 m <sup>2</sup>		
2017 Vacant Net Capacity	50,480 m <sup>2</sup>	-74.4%	25.6%	111,273 m <sup>2</sup>	-34.57%	65.4%
2047 Vacant Net Capacity	12,924 m <sup>2</sup>			78,811 m <sup>2</sup>		

**Table 6.42.** Infill and vacant scenario sufficiency results for Upper Hutt

These scenarios for commercial and industrial sufficiency are charted below:

### Commercial floor area sufficiency for Infill and Vacant land scenarios in Upper Hutt over short, medium, and long term



**Figure 6.40.** Commercial floor area sufficiency under infill and vacant land scenarios in Upper Hutt

### Industrial floor area sufficiency for Infill and Vacant land scenarios in Upper Hutt over short, medium, and long term

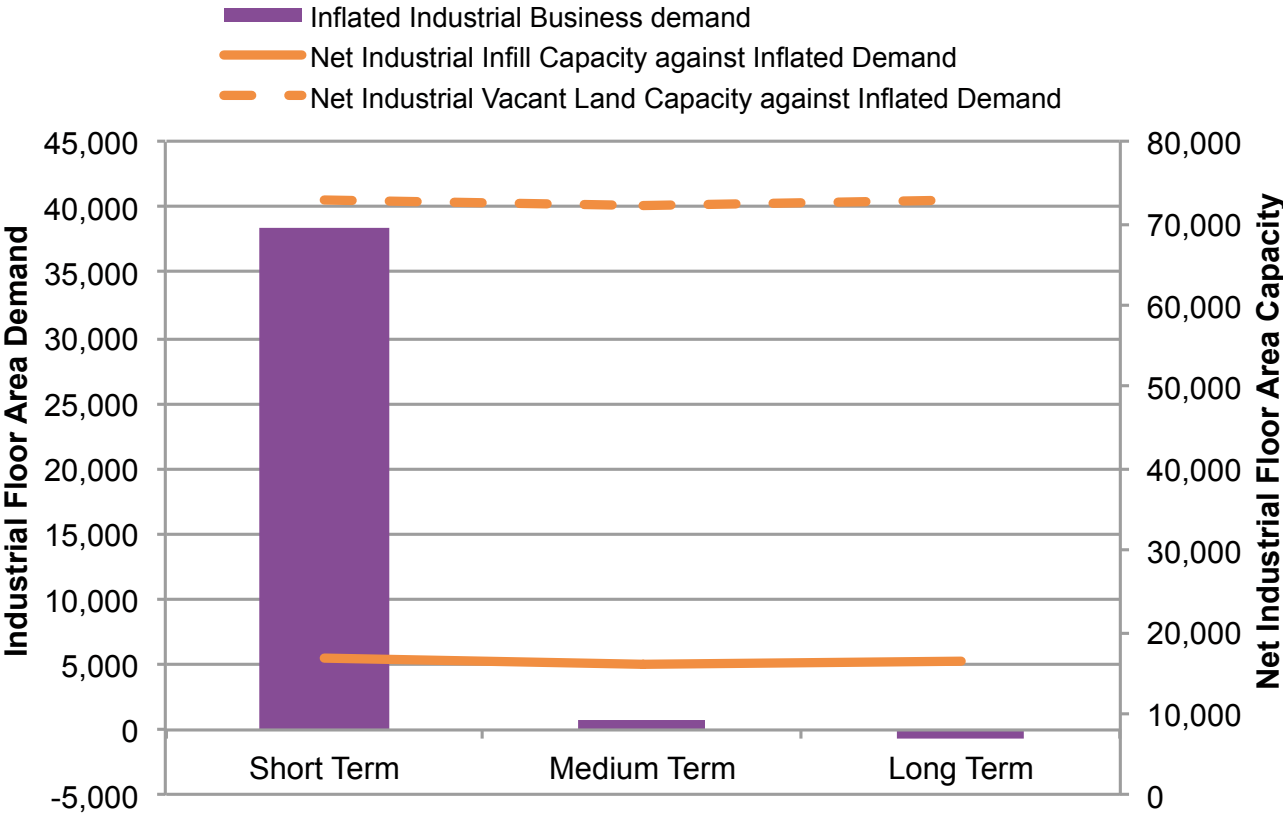


Figure 6.41. Industrial floor area sufficiency under infill and vacant land scenarios in Upper Hutt

This highlights how the sufficiency of business capacity relies on how this capacity is taken up, requiring a suitable split between infill development and vacant land development.

It means that under the industrial infill scenario, currently occupied industrial sites may largely be at capacity by the medium term and there may be additional pressure placed on vacant industrial land parcels. It should be noted that while the above indicates that there will be an increase in industrial floor area capacity due to an anticipated downturn of demand, in practice it is unlikely that this would result in additional capacity being generated. This relies on existing sites being re-purposed or demolished and reconstructed in a more efficient manner. However, there is sufficient vacant land capacity, which at its lowest, caters for just over 78,000m² in the medium term.

For commercial capacity, there will be an overall reliance on the active development of infill capacity over vacant land. However, the above does demonstrate that about 25% of the current (2017) vacant capacity will still be available in 2047 if vacant land is solely developed. Based on current average commercial business floor areas, this equates to a remaining capacity of about 16 buildings.

## 10.4 Business Capacity conclusion

Assessing each business area across MCA feasibility and calculated floor area capacity allows for an assessment of the likely uptake of overall capacity. An assessment for each business type is provided below:

Business Area	Site Name	MCA score as percentage	Industrial Infill capacity	Industrial Vacant capacity
1	Maymorn	77.10%	8,917	3,806
3	Montgomery Crescent	72.90%	8,546	2,206
4	Park Street	78.60%	7,390	13,077
8	Whakatiki Street	70.00%	11,402	1,029
10	Alexander Road	80.00%	2,704	84,734
13	Eastern Hutt Road	70.00%	0	0

**Table 6.43.** Industrial Business Area assessment of likely uptake

Business Area	Site Name	MCA score as percentage	Commercial Infill capacity	Commercial Vacant capacity
2	Upper Fergusson	62.90%	1,672	0
5	Upper Hutt CBD	84.30%	220,232	42,433
7	Ward Street	80.00%	9,059	3,257
9	Lower Fergusson	62.90%	16,790	3,010
11	Fergusson Drive, Silverstream	68.60%	5,822	1,779

**Table 6.44.** Commercial Business Area assessment of likely uptake

Business Area	Site Name	MCA score as percentage	Infill capacity	Vacant capacity
6	Lane Street	75.70%	15,791	6,421
12	Silverstream	68.60%	15,056	0

**Table 6.45.** Mixed-use Business Area assessment of likely uptake

For Industrial Areas, the above shows that areas of high MCA feasibility are generally well-placed to provide for capacity, with Alexander Road a standout. Some exceptions do exist however, with the likes of Montgomery Crescent unlikely to be able to deliver anticipated demand due to a restricted level of available capacity, needing to maximise on already developed lots. Eastern Hutt Road has a complete absence of capacity, which is due to modelling input requirements, rather than an actual lack of capacity (as noted previously).

Results for Commercial Areas are more varied, with the CBD very much being over-represented in both available capacity

and MCA feasibility. An impetus to utilise available infill capacity may therefore be required. Ward Street is likely to act as an additional back-up, with a high level of MCA feasibility and a moderate level of capacity currently available.

Mixed Use Business Areas of Lane Street and Silverstream are fairly similar, with the likely uptake of business capacity in Lane Street being slightly more likely.

Based on the above, it is conceivable that areas in and in close proximity to the Upper Hutt CBD are likely to see continued business development uptake.

# 11.0 Infrastructure

## Key Findings

- Three waters services require substantive upgrade works in order to enable future development. Specifically, while there is high demand in the Urban North Housing Area, this faces significant infrastructure capacity constraints.
- Other local infrastructure such as roads and open spaces are considered to be sufficient, but the roading Level of Service on State Highway 2 through Upper Hutt remains an issue.
- The design of future development will need to consider how best to utilise the public transport network in order to increase network efficiency.

The NPS-UDC requires the consideration of available infrastructure in the assessment of capacity. Development capacity must be either:

- serviced with infrastructure in the short term;
- in the medium term it must be either serviced or funding for the infrastructure is identified in the Council's Long Term Plan; and
- in the long term infrastructure requirements must be identified in the Council's Infrastructure Strategy.

Infrastructure is broadly defined. Development infrastructure refers to three waters infrastructure (potable water, storm water and waste water) and roading infrastructure. Other infrastructure refers to a broader range of infrastructure including open space, social infrastructure, public transport and community infrastructure.

The assessment of infrastructure is set out below.

## 11.1 Three Waters

Wellington Water Limited (WWL) has undertaken an assessment of the three waters infrastructure for the city. The full assessment is attached as **Appendix 6.1**. That report should be read alongside this summary to fully understand the modelling methodology, assumptions, levels of service, and further commentary on mitigation measures. Reporting by WWL takes into consideration anticipated population / dwelling growth, as well as planned infrastructure upgrades in Council's Infrastructure Strategy.

WWL establishes an anticipated Level of Service (LOS) for three waters to assist in the evaluation of three water sufficiency. The LOS for drinking water assumes a minimum level of pressure head, as well as reservoir storage requirements based on a number of different factors. These LOS requirements are referred to as Network and Storage LOS, the latter of which is based on either operational storage or seismic LOS requirements.

The LOS for wastewater assumes a peak wet weather flow capacity, whereby overflows shall not be made worse from present. The wastewater model assumes the SNZ High growth scenario under the UDC. Lastly, the LOS for stormwater is multifaceted, but generally assumes safe access and protection in flood hazard events.

Results for potable water are varied across the network and storage LOS requirements. Network capacity across the urban extent of Upper Hutt is positive, with almost all areas anticipated to have adequate capacity until 2047. The exception is the Maoribank and Mount Marua areas, which are not anticipated to have adequate capacity over any time period. Storage capacity however is more varied, with the Pinehaven, Birchville/Akatarawa, Maymorn, and Plateau/Te Marua already unable to provide storage LOS currently at the base year, or throughout the 30 year time horizon. In the long term it is anticipated that this lack of capacity will extend to almost all of the Upper Hutt urban area, excluding the Maoribank, Emerald Hill, and Mount Marua areas. As a result, it is anticipated that the entire urban extent of Upper Hutt will have some form of network or storage constraint.

The approach to wastewater modelling differs, where the entire network is captured under a single catchment, rather than sub-catchments under the potable water model (known as Water Storage Areas (WSAs)). The model tests sewer pipe capacity in 2047 with a high growth scenario, under a one year design stormwater event. This is a means to test stormwater infiltration and resultant wastewater overflows. Results here show that the Pinehaven / Silverstream area is most constrained, with moderately high levels of sewer overflows. Other areas include the base of Mount Marua, Birchville, Emerald Hill, the base of the Plateau, and Maymorn.

WWL attribute this to a high degree of rainwater infiltration in storm events, severely affecting capacity limits of sewer pipes, as well as a potentially high water table and the cumulative effects of a gravity sewer system. Reporting notes that the model does not yet consider the Lower Hutt network, or the capacity effects on the Silverstream wastewater storage facility<sup>(171)</sup>.

Finally, Stormwater capacity results are generally positive, however the scope of the assessment is only limited to the Pinehaven area. This shows an overall limitation of current stormwater modelling and an area for improvement. Modelling for stormwater also assumes that hydraulic neutrality is achieved for all new developments.

Overall three waters capacity is summarised below for each urban Housing Area.

Urban Housing Area	Network Capacity	Storage Capacity	Wastewater Capacity	Stormwater Capacity
Urban South	Available	Constrained	Highly Constrained	Available*
Trentham / Riverstone	Available	Highly Constrained	Moderate	Not modelled
Upper Hutt CBD	Available	Highly Constrained	Moderate	Not modelled
Urban North	Highly Constrained	Highly Constrained	Constrained	Not modelled

\* Assuming hydraulic neutrality is achieved.

**Table 6.46.** Overview of three waters capacity in Upper Hutt in Urban Housing Areas

## 11.2 Local Road Network

The capacity of Upper Hutt's local road network has been assessed internally by Council staff. The full report can be found at **Appendix 6.2**.

Reporting highlights that local roading in Upper Hutt is generally in good condition. Council has completed work through its Infrastructure Strategy to anticipate future demands. Reporting highlights that the roading network needs to accommodate the growth anticipated in the Land Use Strategy (identified greenfield areas), as well as changes to community desires for alternative transport options.

Council has identified that the quality and safety of rural roads is an issue for the rural community. Existing infrastructure is physically constrained and struggles to deal with multiple users at peak times and as additional areas are developed.

Additionally, as the majority of Upper Hutt's working population commutes outside of the district, arterial routes and connections to State Highway 2 are priorities.

Level of Service (LOS) modelling conducted by UHCC shows that the local network is able to meet agreed levels of service. Modelling however also indicates that there will be degraded service levels in the future, and accordingly, council has scheduled several infrastructure upgrades to meet demand. Modelling shows that LOS at State Highway 2 is unacceptable and has been identified as a key constraint.

171. The report notes that: In 2016/17 there were 10 events which discharged a total of 243,480 m<sup>3</sup> to the Te Awa Kairangi/Hutt River. In 2017/18 there were 8 events which spilled 214,927 m<sup>3</sup>.

Reporting concludes with overall anticipated upgrades to meet identified constraints as follows:

Term	Statement
<b>Short term 0 – 3 years:</b> Assessment of whether development capacity is serviced with transport infrastructure	Business-as-usual land transport programmes, including some capital projects, are provided for in Council's Long Term Plan and Infrastructure Strategy for this period, including: <ul style="list-style-type: none"> <li>• Rural roads high-priority safety projects (2018 – 2028)</li> <li>• Fergusson/Ward/Whakatiki intersection upgrade (2019 – 2020)</li> <li>• Fergusson/Main/Gibbons intersection upgrade (2020 – 2021)</li> <li>• Totara Park Bridge widening (2020 – 2021)</li> </ul>
<b>Medium term 3 – 10 years:</b> Assessment of whether development infrastructure required to service development is identified in the Council's Long Term Plan, or Infrastructure Strategy.	Business-as-usual land transport programmes, including some capital projects, are provided for in Council's Long Term Plan and Infrastructure Strategy for this period, including: <ul style="list-style-type: none"> <li>• Silverstream Bridge replacement (2021 – 2025)</li> <li>• Eastern Hutt/Fergusson Drive intersection and access to county lane (2023 – 2024)</li> </ul>
<b>Long Term 10 – 30 years:</b> Development capacity must be feasible, identified in relevant plans and strategies, and the development infrastructure required to service it must be identified in the relevant Infrastructure Strategy required under the Local Government Act 2002.	Council's Infrastructure Strategy and Land Use Strategy cover this period, providing the basis for Council's high level planning of infrastructure provision to service development capacity. The Infrastructure Strategy is reviewed every three years in line with the Long Term Plan to adjust Council's work programmes and funding requirements accordingly in response to a range of factors, including growth.

**Table 6.47.** UHCC local road works over NPS-UDC timeframes

### 11.3 State Highway Network

Upper Hutt has two State Highway roading corridors within its territorial boundaries, dominated by State Highway 2, which runs through the district. As previous, LOS modelling has shown that the level of service offered is quite restricted.

NZTA have completed a regional assessment to inform the overall Greater Wellington UDC area, previously referenced in this assessment. The reporting notes that no works are anticipated across the proportion of State Highway 2 within Upper Hutt.

A copy of the NZTA State Highway assessment is attached as **Appendix 1.8** to this HBA.

### 11.4 Public Transport

The Greater Wellington Regional Council (GWRC) has completed a regional assessment of public transport across the study area.

Upper Hutt is currently serviced by six train stations, five of which are spread across the urban extent, providing connections to both Wellington City and Masterton.

The remaining urban area is serviced by a number of bus routes, all of which conclude in the CBD, adjacent to the Upper Hutt Railway Station. This affords the community comprehensive accessibility to public transport options. However, reporting stresses that the uptake of these services remains limited, and is largely due to a dispersed population base, where private transport alternatives are easily accessible.

Overall, GWRC attributes increasing network congestion and higher than anticipated patronage as some of the more pressing issues to being able to provide sufficient public transport. Reporting highlights how improving the efficiency of the rail system in accordance with travel patterns is therefore one of the key priorities, including more express services to the Wellington City Centre. This includes the expansion of park and ride facilities and railway station upgrades.

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UHCC will need to carefully consider the integration of public transport with any future growth areas, ensuring that density increases the efficiency of the network and that additional housing capitalises on established transport hubs.

A copy of GWRC's Public Transport Assessment is attached as **Appendix 1.9** to this HBA.

### **11.5 Open Space**

The capacity of Upper Hutt's Open Spaces have been assessed internally by Council staff. The full report can be found at **Appendix 6.3**.

Reporting highlights the substantial open space resources located within Upper Hutt, with a total of 54 parks, 67 sportfields, and 37kms of walking and cycling tracks, amongst others. Upper Hutt's extensive natural habitat affords ample opportunity for the creation of additional reserves, and indeed is home to the majority of Regional Parks in the Greater Wellington Region.

The Open Spaces Strategy provides the strategic direction for parks and open spaces (note, this was adopted in 2018 after the base year of this assessment). Additionally, Council's Infrastructure Strategy also manages open space, focusing on larger infrastructure projects, such as sports ground upgrades and cycle ways.

Community surveys highlight that the overwhelming majority of people are satisfied with current facilities provided. Reporting highlights that changes to demographics and a focus on infill housing will put additional pressure on existing open spaces, highlighting the need for appropriate management regimes. Here, the Open Space Strategy provides guidelines for how open spaces should be managed in line with anticipated demand.



A summary of overall works across the NPS-UDC timeframes is provided below.

Term	Statement
<b>Short term 0 – 3 years:</b> Assessment of whether development capacity is serviced with open space infrastructure	Business-as-usual work programmes, including some capital projects, are provided for in Council's Long Term Plan and Infrastructure Strategy for this period, including: <ul style="list-style-type: none"> <li>• Maidstone Sports Hub Stage 1 (2018 – 2019)</li> <li>• Trentham Memorial Park upgrade (2018 – 2019)</li> <li>• Maidstone Max upgrade (2019 – 2020)</li> <li>• Walking and cycling network project (2018 – 2028)</li> <li>• Regional cycle trails (2018 – 2028)</li> </ul>
<b>Medium term 3 – 10 years:</b> Assessment of whether development infrastructure required to service development is identified in the Council's Long Term Plan, or Infrastructure Strategy.	Business-as-usual work programmes, including some capital projects, are provided for in Council's Long Term Plan and Infrastructure Strategy for this period, including: <ul style="list-style-type: none"> <li>• City Centre open space (2021 – 2024)</li> <li>• Maidstone Sports Hub Stage 2 (2022 – 2023)</li> <li>• Maidstone Park artificial turf renewals (2023 – 2024)</li> <li>• Walking and cycling network project (2018 – 2028)</li> <li>• Regional cycle trails (2018 – 2028)</li> </ul>
<b>Long Term 10 – 30 years:</b> Development capacity must be feasible, identified in relevant plans and strategies, and the development infrastructure required to service it must be identified in the relevant Infrastructure Strategy required under the Local Government Act 2002.	Council's Infrastructure Strategy and Land Use Strategy cover this period, providing the basis for Council's high level planning of infrastructure provision to service development capacity. In addition, Council's Open Space Strategy has specifically analysed network gaps and deficiencies to enable the continued management and development of the open space network to meet current and future community needs. The Infrastructure Strategy is reviewed every three years in line with the Long Term Plan to adjust Council's work programmes and funding requirements accordingly in response to a range of factors, including growth. The Open Space Strategy has a ten-year planning horizon and will be reviewed on this basis (around 2028).

**Table 6.48.** Planned Open Space works in UDC timeframes

## 6.11.6 Education

The Ministry of Education has completed a regional assessment of public transport across the study area.

Reporting from the Ministry highlights that state-integrated schools are largely at capacity, with the capacity for secondary schools generally constrained. The Ministry anticipates that UHCC will consult with them when considering the development of future growth areas due to identified constraints.

A copy of the Ministry's Education Schooling Assessment is attached as **Appendix 1.11** to this HBA.

## 12.0 Conclusions

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The HBA results for Upper Hutt have shown that:

### Historic consenting and sales:

- Median residential sale prices have substantially increased since 2014, at over 24% to 2017. There was an increase in the number of property sales and an increase in business unit sales over the same period.
- Historically, the rate of allotments being created and new dwellings consented have not aligned well with population growth. For example, while yearly population increased 150% between 2007 and 2011, the yearly number of consents issued dropped by 36%.
- The relative value (and consequential spend) of building consents does align with the relative ease of lending and economic growth, as expressed through the regional GDP.

### Residential:

- Infill capacity modelling has shown that Upper Hutt will struggle to provide feasible infill opportunities. This is due to a number of factors including: existing housing stock; District Plan controls; and the relative competition of greenfield developments, which make up the majority of overall capacity.
- Sensitivity analysis shows that there is a significant opportunity to add additional capacity, with over 4,000 additional dwellings possibly being feasible (over 1,500 infill and about 2,500 greenfield dwellings). If this opportunity can be realised, then overall demand could be met.
- There is an immediate need to enable more medium density typologies, with a total undersupply of about 1,000 terraced dwellings and about 100 apartments between 2017 and 2047. The resultant overall typology make-up in Upper Hutt is anticipated to be similar to that of Lower Hutt, with a lower proportional demand for standalone dwellings than the likes of Porirua or Kapiti Coast.
- Results from the Urban North Housing Area show that there is a consistent undersupply of housing over the 30 year projection.
- Overall residential results show that it will be important for the District Plan Review to carefully evaluate the typology make-up of each growth area, as well as the form and function of infill areas, in order to enable housing densities described in sensitivity testing. The review will also need to consider updates to Council strategies/policies, and

may require a specific focus on the Urban North Housing Area. Plan Change 50 will likely present the opportunity to address the overall forecasted undersupply of housing.

### Business:

- Upper Hutt is generally well placed to serve business needs, with sufficient floor space capacity and an attractive level of feasibility identified by the MCA panel.
- Overall, business demand over the 30 year period is anticipated to transition from industrial demand to commercial demand. The CBD is heavily relied on to cater for this future commercial business demand (with 79% of commercial capacity), meaning there will need to be a greater focus on upward infill building development upon existing allotments. Various incentives and development controls may need to be realised to ensure this type of development is undertaken.
- Current District Plan zoning does not adequately capture the diversity within general commercial and industrial zones. This could be further refined to better enable the likes of heavy industry.

### Infrastructure:

- Three waters infrastructure remains one of the largest obstacles to enabling future residential and business growth demands. There are significant issues with wastewater and drinking water storage capacity over the short, medium and long term.
- While local roading infrastructure is generally at an acceptable level of service, the State Highway network within the Upper Hutt District requires upgrades to meet current transport pressures.
- Council will need to work closely with the Ministry of Education to ensure education needs are met within the community, in line with population growth.

## 13.0 Next Actions

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UHCC has begun to review the rural and residential chapters within the Upper Hutt District Plan through Plan Change 50. This plan change will need to respond to the findings generated through this first generation HBA. The existing Land Use Strategy will provide the framework for how and where growth is apportioned, as this has already signalled areas for both infill intensification and greenfield development.

The timeframe of review requirements under the NPS will mean that there is likely to be a second generation HBA released prior to the notification of Plan Change 50, which is expected to be in early 2022. Council will need to proactively monitor whether currently projected demand has been taken up to ensure the plan change can be adequately informed by HBA results.

Both local and regional strategies will also need to be evaluated as to whether they enable sufficiency. To this end, Council remains committed to evaluating how Upper Hutt is able to meet the region's housing needs.