Chapter 3: Hutt City Council

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1 Executive Summary

This report presents the results of the Housing and Business Development Capacity Assessment (HBA) update for Hutt City Council as required under the National Policy Statement on Urban Development (NPS-UD). The HBA reports on the demand for, and supply of, residential development capacity over the 30 years to 2051.

Strong on-going population growth combined with a decline in average household size will significantly increase demand for dwellings in Lower Hutt over the next 30 years. Lower Hutt has experienced rapid price and rent rises since about 2015 due to an emerging shortage of housing.

Lower Hutt's constrained geography means the city has limited scope for greenfield expansion and will have to increasingly rely on the intensification of existing urban areas to accommodate population growth.

1.1 Residential Demand

This report assesses demand for residential dwellings based on the Sense Partners median growth forecast. This demand is broken down further into two categories of dwelling types: 'stand-alone dwellings', and 'attached dwellings'.

The growth projections indicate that Lower Hutt will need to provide for 21,190 dwellings by 2051. Adding a 'competitiveness margin' of 15-20% to those numbers, as required by the NPS-UD, means that Lower Hutt will need to provide for 24,773 dwellings by 2051 based on the Sense Partners median growth projection.

1.2 Residential Capacity

The modelling of residential development capacity has been split into two parts: available capacity in greenfield areas, and infill and redevelopment capacity within existing urban areas. This modelling indicates that Lower Hutt has realisable development capacity for 16,847 residential dwellings and sections. This is made up of 15,944 feasible infill and redevelopment dwellings, and 903 greenfield sections.

Under the median projected growth scenario Lower Hutt has insufficient development capacity to meet demand over the 30 year time frame with a realisable capacity meeting only 68% of demand.

1.3 Infrastructure

An assessment of the three waters network for Lower Hutt City indicates that there are significant constraints in the existing and planned services for water supply, wastewater and stormwater. Upgrades will be needed to Lower Hutt's three waters infrastructure to support the anticipated population growth.

Lower Hutt has a number of existing constraints in its transport network and has identified improvement projects to address these. Concurrently, Lower Hutt is investing in its active mode network to provide attractive alternatives to driving.

There is capacity for population growth in Lower Hutt's schools and public open space.

1.4 Next Steps

Overall this assessment reveals that Lower Hutt has insufficient residential development capacity in the long term.

This shortage of supply cannot be overcome without also resolving constraints within the three waters network. While quantifying the exact impact of these constraints is beyond the scope of this assessment, in many areas of the city resolving the constraints will require further investment.

Hutt City Council is, at time of writing, preparing an Intensification Planning Instrument to enable more residential intensification capacity, and is also undertaking a full District Plan review. These will provide further opportunities to increase residential development capacity, including through implementing the intensification requirements of the NPS-UD.

2 Introduction

Under the NPS-UD every 'tier 1' local authority must prepare, and must make publicly available, a Housing and Business Development Capacity Assessment (HBA) every 3 years. According to the NPS-UD, if more than one tier 1 local authority has jurisdiction over a tier 1 urban environment, those local authorities are jointly responsible for preparing an HBA. Hutt City Council is a part of the Wellington tier 1 urban environment.

Under the NPS-UD, tier 1 local authorities must update their HBA as it relates to housing by 31 July 2021. This chapter of the Wellington Region HBA housing update seeks to meet this requirement of the NPS-UD for Hutt City Council.

According to policy 3.20 of the NPS-UD, the purpose of an HBA is to:

- provide information on the demand and supply of housing and of business land in the relevant tier 1 or tier 2 urban environment, and the impact of planning and infrastructure decisions of the relevant local authorities on that demand and supply; and
- inform RMA planning documents, future development strategies and long-term plans; and
- quantify the development capacity that is sufficient to meet expected demand for housing and for business land in the short term, medium term and long term.

This report should be read in conjunction with the Wellington Regional HBA housing update and associated appendices. The Regional HBA details the underlying methodology and assumptions that underpin the data presented in this report.

3 Existing Policy Context

3.1 City of Lower Hutt District Plan

The City of Lower Hutt District Plan is prepared under the Resource Management Act 1991. The District Plan was drafted in the early 1990s, was notified in 1995, became operative in 2003/2004 and is subject to an on-going rolling review. The District Plan is the Council's key planning document that manages the effects of the use of land by zoning land, setting out objectives and setting out policies and rules to achieve those objectives.

Plan Change 43 of the Lower Hut District Plan became fully operative in 2021. It fully reviewed the General Residential Activity Area provisions and introduced two new zones, providing for medium density residential development and suburban mixed use in targeted areas.

The purpose of District Plan Change 43 is to provide for greater housing capacity and a wider range of options for housing styles and sizes at medium densities within the existing urban area. This includes low-rise apartments and terraced houses in areas that have good access to public transport, shopping, parks and schools, but also minor additional dwellings on smaller sites that do not have the potential for traditional infill.

Hutt City Council is currently preparing an Intensification Planning Instrument to give effect to the intensification requirements of the National Policy Statement on Urban Development, and is also undertaking a full District Plan review in order to give effect to the National Planning Standards and provide for growth in other ways, including through the infrastructure provisions of the plan. The Intensification Planning Instrument must be notified by August 2022, and a proposed District Plan is due to be notified in 2023.

3.2 Urban Growth Strategy 2012 – 2032

The Urban Growth Strategy (UGS) sets out the long-term approach to managing growth and change for Lower Hutt. The UGS sets a target for increasing the population to 110,000, and increasing the number of homes by 6,000, by 2032. The UGS includes several strategies to progress growth by providing for intensification, greenfield development, and financial incentives. These include:

- Provide for targeted infill intensification in Waterloo and Epuni beyond 2018.
- Carry out further investigatory work on other areas that may be suitable for targeted infill intensification for example, the railway corridor and the periphery of the Central Business District (CBD).

- Provide for low-rise apartment developments in key locations in the City, namely:
  - Eastbourne against the hills, and other sites that will not have negative effects on views and shading of existing dwellings,
  - Jackson Street from Cuba Street West excluding the area covered by Plan Change 29, The Esplanade and Marine Parade area in Petone,
  - around the Waterloo shops and train stations with the exception of Ava station,
  - the periphery of the CBD (high-rise is already provided for in CBD), and
  - suburban shopping centres
- Provide for targeted multi-unit development rather than reducing lot size across the board.
- Develop and implement through the District Plan (where not already required) design guidelines for medium and high density developments (includes multi-unit developments and apartments) and all developments in the CBD and Petone West.
- Investigate the feasibility of relaxing CBD parking requirements per apartment to allow developers and apartment building owners to provide off-site parking where they are converting an existing building into apartments.
- Provide for residential development on approximately 24 hectares in the Upper Fitzherbert area above Wise Street and below the paper road, instead of pursuing greenfield development for whole of the Upper Fitzherbert area at this time.
- Provide for residential development on approximately 40-50 hectares in the Upper Kelson area.
- Provide for rural/residential development on approximately 265 hectares in Normandale and Moores Valley.
- Allow development of smaller lifestyle sections of 5,000 square metres and investigate reducing frontage and driveway requirements.
- Allow one hectare lots across the remaining rural residential areas in the city.
- Extend the financial incentives policy for another three years and make this available for high density developments and large non-residential developments in Lower Hutt.

3.3 Infrastructure Strategy 2021 – 2051

The Infrastructure Strategy 2021–2051 outlines council's long-term approach to ensuring provision of good three waters and transport infrastructure on which to build a sustainable future. The strategy goes beyond the scope of council's asset management plans and sets out Hutt City Council's vision and goals for infrastructure and an approach for managing infrastructure decisions. The strategy outlines significant issues and opportunities and presents proposals for how these will be managed.

The Infrastructure Strategy has two goals:

- Strong, reliable, efficient and effective three waters and multi-modal infrastructure networks.
- The provision of current and new infrastructure in a sustainable way, focusing on guardianship of our environment and communities.

The strategy identifies four key issues (ageing infrastructure and investment in renewals, the effects of climate change and natural hazards, growth and demand variations, technological advancements) and sets out responses to these.

3.4 Wellington Regional Growth Framework

The Wellington Regional Growth Framework is a spatial plan that has been developed in collaboration between the Wellington region's councils, Horowhenua District Council, central government and mana whenua. It sets a long-term vision for how the region will grow, change and respond to key urban development challenges and opportunities. The regional growth framework has the following objectives:

- Increase housing supply, and improve housing affordability and choice.
- Enable growth that protects and enhances the quality of the natural environment and accounts for a transition to a low/no carbon future.
- Improve multi-modal access to and between housing, employment, education and services.
- Encourage sustainable, resilient and affordable settlement patterns/urban form that make efficient use of existing infrastructure and resources.
- Build climate change resilience and avoid increasing the impacts and risks from natural hazards.
- Create employment opportunities.

The Growth Framework identifies the 'Central Hutt Triangle' (which includes the Lower Hutt CBD, Woburn, Waterloo, Epuni and Naenae), Petone North and Taitā as 'Urban Renewal Areas' for medium to high density development. The Growth Framework also identifies Wainuiomata North as a 'Future Urban Area', a classification which applies to areas with the potential to provide over 1000 new dwellings.

4 Housing Demand

Key Findings

- Lower Hutt City is projected to grow by 48,906 people between 2021 and 2051.
- To accommodate this growth, the City will require 24,773 new dwellings[1].

4.1 Population and Household Growth

Clause 3.24 of the NPS-UD requires every HBA to estimate the demand for additional housing over the short, medium, and long term in terms of different locations and different housing types. This assessment uses the years 2021 to 2024 for the short term, 2024 to 2031 for the medium term, and 2031 to 2051 for the long term.

Demand for housing is driven by population growth. Sense Partners have provided demographic and dwelling forecasts for the Wellington region based on a range of potential outcomes. The table below shows a range of potential outcomes for population growth based on 5th, 25th, 50th, 75th, and 95th percentile projections.

Table 3.1. Projected population growth, Lower Hutt 2021-2051.

	Population, June year ended				Changes			
Sense Partners forecast	**2021**	**2024**	**2031**	**2051**	**2021-2024**	**2024-2031**	**2031-2051**	**Total (2021 – 2051)**
Min 5th Percentile	113,263	117,811	123,266	118,003	4,548	5,455	-5,263	**4,740**
25th Percentile	113,649	119,062	129,140	138,174	5,413	10,078	9,034	**24,525**
Median 50th Percentile	113,905	120,113	133,457	162,811	6,208	13,344	29,354	**48,906**
75th Percentile	114,199	121,146	138,654	182,801	6,947	17,508	44,147	**68,602**
Max 95th Percentile	114,514	122,148	144,086	213,693	7,634	21,938	69,607	**99,179**

This assessment uses the Sense Partners 50th percentile, or median, projection of future population growth. More details about this projection are in Appendix 1.2.

Under this scenario population growth for Lower Hutt in number of additional people over the period 2021-2051 is projected as follows:

Table 3.2. Projected population growth under the median projection, Lower Hutt 2021-2051.

	2021-2024	2024-2031	2031-2051	Total
Sense Partners 50th percentile	6,208	13,344	29,354	**48,906**

Translating that population growth into households[1], the projected numbers of additional dwellings required to meet that growth are as follows:

Table 3.3. Demand for additional dwellings, Lower Hutt 2021-2051.

	2021-2024	2024-2031	2031-2051	Total
Sense Partners 50th percentile	2,434	5,657	13,099	**21,190**

For planning purposes it is important to provide capacity for a greater amount of housing than what is projected to be required, to account for uncertainty and the fact that not all feasible development opportunities will be taken up. Clause 3.22 of the NPS-UD requires inflating the demand number by 20% over the short and medium term, and 15% over the long term in order to

[1] *Based on the number of people per dwelling adjusting for changes in this over time.*

provide a 'competitiveness margin' of development capacity over and above expected demand. The resulting demand is as follows:

Table 3.4. Demand for additional dwellings, including competitiveness margin, Lower Hutt 2021-2051.

	2021-2024	2024-2031	2031-2051	Total
Sense Partners 50th percentile	2,921	6,788	15,064	**24,773**

4.2 Latent Demand

Another factor to consider when calculating housing demand is any existing latent demand based on a historic undersupply of housing. It is difficult to determine whether an undersupply of housing existed in Lower Hutt City prior to 2014. From 1998 to 2014 the city had low to negative household growth with the rate of building consents generally outpacing growth in new households[2]. Accordingly, between 2008 and 2015 there was flat growth in rents and sales prices in Lower Hutt when adjusted for inflation. Only since 2016 has growth in new households consistently exceeded building consent numbers. Over the same period rents and prices have risen rapidly.

An estimate of latent demand has not been included in the estimates of total demand for housing that form the basis of this assessment.

4.3 Demand by Typology

Overall demand for additional dwellings in the Sense Partners forecast is further broken down into two types of dwellings[3]:

- Stand-alone Housing – typically refers to stand-alone houses on separate allotments.
- Attached dwellings – broadly encompasses townhouses, terrace housing, units, semi-detached dwellings and apartments.

Based on the Sense Partners median projected demand for additional dwellings by these housing typologies is as follows:

[2]*Source: HUD. The building consent numbers do not take demolitions into account and there had been a significant number of demolitions of Housing New Zealand dwellings in Lower Hutt City prior to 2016.*

[3]*This excludes the category of "other dwellings" which includes dwellings in motor camps, mobile dwellings, improvised dwellings or shelters, and rough sleepers, and non-private dwellings.*

Table 3.5. Demand for additional dwellings by typology, Lower Hutt 2021-2051.

	2021-2024	2024-2031	2031-2051	Total
Stand-alone dwellings	1,900	3,748	9,330	**14,978**
Attached dwellings	538	1,909	3,769	**6,216**

Inflating these numbers by 20% over the short and medium term, and 15% over the long term in accordance with clause 3.22 of the NPS-UD, the following demand by dwelling type is projected:

Table 3.6. Projected dwellings by type inflated to add "competitiveness margin", Lower Hutt 2021-2051.

	2021-2024	2024-2031	2031-2051	Total
Stand-alone dwellings	2,280	4,498	10,730	**17,508**
Attached dwellings	646	2,291	4,334	**7,271**

A potential limitation is that the forecast may be overstating future demand for stand-alone housing based on the large number of stand-alone houses that currently exist. And in turn it may be insufficiently accounting for the limited ability to add large numbers of stand-alone houses in many areas of Lower Hutt, and the fact that people may be willing to accept different housing typologies in exchange for increased affordability or a more central location.

4.4 Demand by Location

In addition to addressing overall demand, the assessment considers the location of demand. For the purposes of this assessment Lower Hutt was divided into six broad "housing catchments" as shown in Figure 3.1 below.

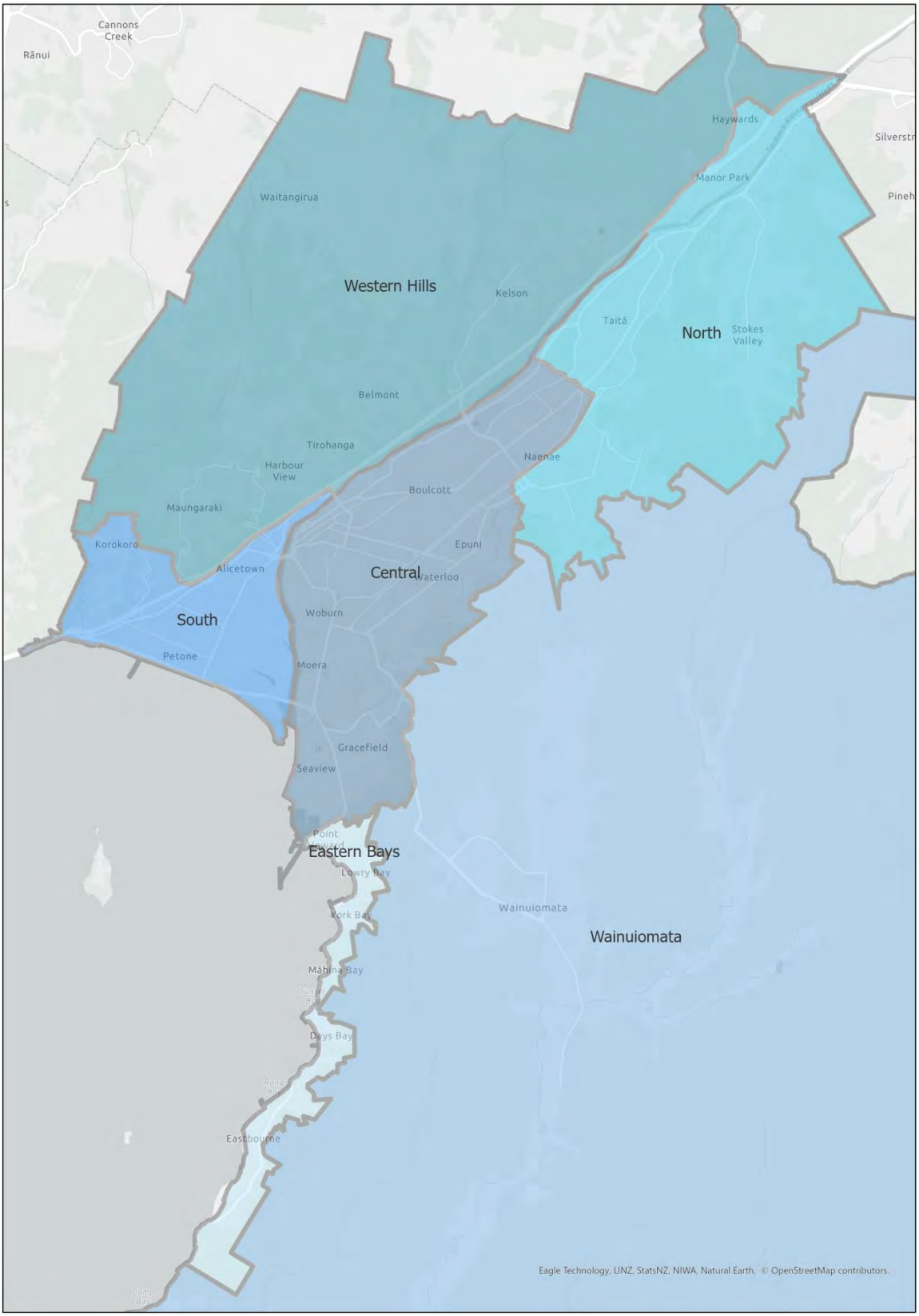

Figure 3.1. The six Lower Hutt housing area catchments.

These housing catchments are groupings of suburbs which were selected for containing broadly similar housing markets. The table below shows which Statistics New Zealand Statistical Area 2 areas are included in each catchment:

Table 3.7. Lower Hutt housing catchments by SA2 areas.

Housing catchment	SA2 areas included
Wainuiomata	Arakura Pencarrow Wainuiomata West Glendale Wainuiomata Central Homedale East Homedale West
Eastern Bays	Eastern Bays Eastbourne
Western Hills	Belmont Park Maungaraki Kelson Normandale Belmont (Lower Hutt City) Tirohanga
North	Manor Park Taita North Stokes Valley Central Taita South Stokes Valley North Naenae Central Delaney Naenae North Manuka Naenae South
Central	Boulcott Hutt Central North Avalon West Hutt Central South Epuni West Avalon East Woburn Waterloo West Epuni East Gracefield Moera Waiwhetu Waterloo East
South	Korokoro Petone Central Alicetown-Melling Petone East Petone Esplanade

The following table shows demand for additional housing across the six catchments:

Table 3.8. Demand for additional dwellings by location, Lower Hutt 2021-2051.

	2021-2024	2024-2031	2031-2051	Cumulative Total
Eastern Bays	67	51	291	**409**
Central	733	1,655	3,680	**6,068**
Western Hills	388	1,027	2,272	**3,687**
North	643	1,496	3,383	**5,522**
South	237	592	1,473	**2,302**
Wainuiomata	366	836	2,000	**3,202**
Total	**2,434**	**5,657**	**13,099**	**21,190**

And the demand for additional housing across the six housing catchments inflated to meet the requirements of clause 3.22 of the NPS-UD is as follows:

Table 3.9. Demand for additional dwellings by location inflated, Lower Hutt 2021-2051.

	2021-2024	2024-2031	2031-2051	Cumulative Total
Eastern Bays	80	61	335	476
Central	880	1,986	4,232	7,098
Western Hills	466	1,232	2613	4,311
North	772	1,795	3,890	6,457
South	284	710	1,694	2,689
Waiuniomata	439	1,003	2,300	3,742
Total	**2,921**	**6,788**	**15,064**	**24,773**

The assessment of demand by area shows that there is strong growth in demand for housing in all the catchments except Eastern Bays. However, there may be a limitation to this analysis. The projected population growth for each area is based in part on existing population and how much growth existing planning provisions allow for. This means it may not give a good measure of potential demand in certain areas under alternative planning rules that are more responsive to latent demand. This explains the comparatively low long term growth in demand for housing in the Eastern Bays catchment, where there is market demand for housing, as shown by comparatively

high prices and rents for existing housing, but limited ability to provide these houses under existing planning rules.

5 Housing Development Capacity

Key Findings

- Modelling indicates that Lower Hutt has plan enabled capacity for 120,518 additional dwellings.
- Of the plan enabled capacity, 39,077 dwellings or about 32% are modelled to be feasible to develop at the time of preparing this report.
- Of the 39,077 feasible dwellings, 903 come from greenfield land supply. The remainder come from existing urban areas through infill development, redevelopment, and intensification.
- Applying a further realisation test to the feasible capacity results in a realisable capacity of 16,847 dwellings over the 30 years to 2051.
- This is a nearly four-fold increase over the capacity in the 2019 assessment, largely driven by liberalised planning rules for intensification in residential areas, and market shifts resulting in greater feasibility for apartments in the city centre and Petone.

The modelling of residential development capacity has been split into two parts: available capacity in greenfield areas, and infill and redevelopment capacity within existing urban areas. All models use the current District Plan settings to determine "plan enabled capacity", and then assess the economic feasibility of that capacity.

Development 'feasibility' refers to analysis of whether expected revenues from developing a piece of land exceed the costs of development, including a profit margin to cover the effort and risk involved in the development process.

Somebody who is considering subdividing land for residential use will typically begin by asking whether current prices for residential sections are likely to cover the cost to buy a site, survey and plan it, undertake earthworks, provide roads and pipes, and market new sections. If the answer is 'no', then the development is unlikely to proceed.

Plan enabled capacity may not be feasible if the sales price of the resulting sections or dwellings are less than the cost of buying land and developing it including a profit. A major factor affecting greenfield development feasibility in Lower Hutt is the high costs of earthworks and providing

infrastructure to sites with steep topography. Generally, plan enabled capacity in Lower Hutt will be most feasible in areas with high sales prices, low development costs, or both.

Feasibility in Lower Hutt may change over time either through a reduction in development costs or an increase in dwelling and section prices. However, if there is an increase in the number of feasible dwellings as a result of higher sales prices this undermines the objective of improving affordability.

5.1 Greenfield

The Wellington Greenfield Feasibility Development Model was developed in 2018 as an input into the first HBA. This model estimates the commercial feasibility of developing new residential sections on greenfield land zoned for residential development in Lower Hutt. The model included all undeveloped sites over 5 hectares in size in Lower Hutt with a residential zoning.

The 2021 update to the Wellington Greenfield Feasibility Development Model only assessed greenfield sites with a residential zoning in the operative district plan. This contrasts with the 2018 assessment which took into account potential greenfield sites with rural zonings that had been identified for growth in long term planning strategies such as the Urban Growth Strategy.

The table below shows the number of "plan enabled" residential sections for the different catchment areas modelled in Lower Hutt as a part of the 2021 update, and the number of these sections that are commercially feasible to develop based on updated land prices, development costs, and house sales prices. The 2021 update to the Greenfield Feasibility Development Model applied a percentage increase to reflect approximate average changes to land prices, development costs, and house sales prices since 2018. The update was based on a 50% increase to house sales prices, a 10% increase to development costs, and land purchase costs 50% above the 2019 CV values[4].

Table 3.10. Plan enabled and development feasible sections in Lower Hutt greenfield sites by catchment.

	Plan Enabled	Feasible
Wainuiomata	648	547
Western Hills	280	280
North	76	76
Total	**1004**	**903**

The updated model shows that Lower Hutt City currently has 903 plan enabled and development feasible residential sections.

[4]*Based on approximate average changes since 2018 according to information from the Ministry of Housing and Urban Development affordability dashboard and Statistics New Zealand's Producers Price Index.*

5.2 Infill and Redevelopment

The infill and redevelopment model estimates the commercial feasibility of developing new residential sections or dwellings in the existing urban areas of Lower Hutt on sites less than 5 hectares, under the current operative planning rules. The model first estimates the "theoretical capacity" of development allowed for by the operative District Plan through either infill or redevelopment. The model then calculates how much of this theoretical capacity is commercially feasible to develop. A summary of the infill and redevelopment modelling is attached as Appendix 3.3.

The table below sets out the feasible infill and redevelopment capacity for Lower Hutt by dwelling type:

Table 3.11. Supply of feasible residential capacity by typology.

Typology	Quantity
Stand-alone Housing	11,454
Terrace Housing	11,451
Apartments	15,269
Total	**38,174**

This capacity can then be broken down into the six catchments, identified in Figure 3.1 above, which were used to assess residential demand.

Table 3.12. Supply of feasible infill and redevelopment residential capacity by typology and catchment.

	Standalone	Terrace	Apartments	Total
Wainuiomata	2,608	2,005	0	4,613
Eastern Bays	254	62	0	316
Western Hills	661	614	0	1,275
North	3,007	4,033	0	7,040
Central	4,571	3,295	7,251	15,117
South	353	1,442	8,018	9,813
Total	**11,454**	**11,451**	**15,269**	**38,174**

The 2019 HBA did not find that apartments were feasible anywhere in Lower Hutt. It is a notable change in this update that significant numbers of apartments are now feasible. It is worth noting

that it was an explicit assumption of the model that apartments were not possible outside of the commercial areas, due to resource consenting risk. For more detail, see Appendix 3.3.

5.3 Total Feasible Development Capacity

Combining Lower Hutt's Residential Greenfield capacity with that for Infill and Redevelopment gives an overall feasible development capacity of 39,077 dwellings.

Table 3.13. Overall supply of feasible residential capacity by typology and catchment (Infill, Redevelopment and Greenfield).

	Infill & Redevelopment Dwellings	Greenfield Sections	Total
Wainuiomata	4,613	515	5,128
Eastern Bays	316	0	316
Western Hills	1,275	280	1,555
North	7,040	76	7,116
Central	15,117	0	15,117
South	9,813	0	9,813
Total	**38,174**	**871**	**39,077**

5.4 Realisation

Not all development capacity that is commercially feasible will be delivered over the next 30 years. Landowners have different motivations around their land and may not wish to sell to a developer or develop themselves even if it is profitable to do so. Many landowners may wish to forgo potential profits and keep their property as it is.

Clause 3.22 of the NPS-UD requires a 20% oversupply of development capacity to be provided in the short and medium term, and a 15% oversupply in the long-term. This policy addresses the uncertainty around development and the fact that not all feasible development capacity will be taken up.

An estimate of the infill and redevelopment capacity that is likely to be realised in Lower Hutt has been provided by Property Economics. This is detailed further in the report by Property Economics attached as Appendix 3.4. This shows that the realisable capacity for infill and redevelopment across existing urban areas in Lower Hutt is 15,944 new dwellings. This represents a 42% realisation rate of the calculated feasible development capacity.

This is a nearly four-fold increase over the capacity in the 2019 assessment, largely driven by liberalised planning rules for intensification in residential areas, and market shifts resulting in greater feasibility for apartments in the city centre and Petone.

Table 3.14. Supply of realisable infill and redevelopment residential capacity by typology and catchment.

	Standalone	Terrace	Apartments	Total
Wainuiomata	2,484	133	0	2,617
Eastern Bays	137	38	0	175
Western Hills	678	251	0	929
North	3,257	558	0	3,815
Central	3,214	1,535	1,450	6,199
South	343	262	1,604	2,209
Total	**10,113**	**2,777**	**3,054**	**15,944**

The realisation figures are essentially an estimate of 'development chance' for the different typologies. While certain typologies may be 'feasible' to develop on the basis of a 20% profit margin, there is greater risk in some typologies than others, and for some developers than others. Generally, terrace houses and apartments carry greater development risk than stand-alone houses. The realisation estimates account for this risk by increasing the required profit level for a certain development typology to be considered 'realisable' on top of being feasible.

A realisation rate of 100% has been assigned to feasible greenfield development capacity. This realisation rate reflects the fact that plan enabled feasible development capacity in greenfield areas has a high certainty of being developed. Combining realisable infill and redevelopment capacity with greenfield capacity gives the following total realisable capacity:

Table 3.15. Supply of realisable greenfield capacity by catchment and typology.

	Standalone infill/ redevelopment	Greenfield sections	Total
Wainuiomata	2,617	515	3,132
Eastern Bays	175	0	175
Western Hills	929	280	1,209
North	3,815	76	3,891
Central	6,199	0	6,199
South	2,209	0	2,209
Total	**15,944**	**871**	**16,847**

6 Housing Sufficiency

Key Findings

- Realisable development capacity is insufficient to meet projected demand over the 30 years to 2047.
- The shortfall is 7,926 dwellings based on projected demand.

6.1 Sufficiency

Having established demand and supply, the two can now be contrasted. This will answer the question at the centre of this report – is there sufficient residential capacity to meet expected population growth to 2047?

At a city-wide level, the following comparison can be made between demand for housing and realisable development capacity:

Table 3.16. Residential development capacity sufficiency, Lower Hutt 2021 – 2051.

	Total
Demand[5]	24,773
Capacity	16,847
Shortfall/Surplus	-7,926

This shows that Lower Hutt has insufficient feasible development capacity to meet demand over the 30-year time frame, with a shortfall of 7,926 dwellings. Capacity only represents 68% of demand.

The table below provide a further breakdown of housing sufficiency across the short, medium, and long term.

[5]*Inflated to meet the requirements of Policy 3.22 of the NPS-UD. A calculation of any potential existing latent demand has not been included in these figures.*

Table 3.17. Demand and realisable capacity comparison over time.

	2021-2024	2024-2031	2031-2051
Demand	2,921	6,788	15,064
Surplus Capacity	13,926	7,138	-7,926
Sufficient?	Yes	Yes	No

These tables show that under the Sense Partners median projection Lower Hutt has sufficient realisable development capacity over the short and medium term, but insufficient realisable development capacity over the long term.

7 Infrastructure

Key Findings

- There are constraints across the three waters network that will impact on development capacity without intervention in the short, medium and long term. These constraints vary in their scale and location.
- Population growth will put further pressure on Lower Hutt's transport network. Projects for relieving constraints in the transport network have been identified.
- There is capacity for population growth in Lower Hutt's schools and public open space.

The NPS-UD requires councils to provide sufficient development capacity to meet expected demand for housing. In order to be sufficient to meet expected demand the development capacity must be both plan-enabled and *infrastructure-ready*. According to clause 3.4(3) of the NPS-UD development capacity is *infrastructure-ready* if:

(a) in relation to the short term, there is adequate existing development infrastructure to support the development of the land
(b) in relation to the medium term, either paragraph (a) applies, or funding for adequate infrastructure to support development of the land is identified in a long-term plan
(c) in relation to the long term, either paragraph (b) applies, or the development infrastructure to support the development capacity is identified in the local authority's infrastructure strategy (as required as part of its long-term plan).

Infrastructure is broadly defined. *Development infrastructure* refers to three waters[6] and land transport infrastructure. Other infrastructure refers to a broader range of infrastructure including open space, social and community infrastructure. The following section provides information on Lower Hutt's existing and planned infrastructure and its adequacy to meet expected demand for housing.

7.1 Three Waters

Wellington Water has undertaken an assessment of the three waters infrastructure for Hutt City. The full assessment is attached as Appendix 1.3. The report should be read alongside this summary

[6] *Three waters infrastructure refers to water, wastewater and stormwater.*

to fully understand the modelling methodology, assumptions, levels of service, and further commentary on mitigation measures.

The assessment indicates that there are significant constraints in the existing and planned services for water supply, wastewater and stormwater in Lower Hutt, and significant upgrades will be needed to support the anticipated population growth. It is expected that as growth continues, the appropriate releases to these constraints will be planned and implemented to facilitate further growth.

7.1.1 Water Supply

Capacity in water supply infrastructure is assessed in terms of "network capacity" and "storage capacity" for 20 Water Storage Areas (WSA) in Hutt City. WSAs are defined as a water supply network comprising of at least one reservoir, which can be expected to operate independently if the supply is interrupted. The Hutt City assessment indicates that there are capacity constraints for either network capacity or storage capacity in approximately two thirds of WSAs over the short, medium, and long terms.

Site specific growth may be accommodated by reconfiguring the water supply network, such as by expanding or reducing the area supplied by a specific reservoir. The assessment does not consider future efficiency of the network (leak prevention) and customer use (demand management).

7.1.2 Wastewater

The capacity of the wastewater networks were assessed using a 'calibrated hydraulic model' for the Wainuiomata catchment and only a 'limited design code analysis' for the larger Lower Hutt catchment. These analyses indicate significant capacity constraints in both catchments, with neither having sufficient infrastructure capacity for projected urban growth over the short, medium, or long term.

7.1.3 Stormwater

The Hutt Valley and Wainuiomata Valley are both subject to extensive flooding due to runoff from surrounding hills, and flat land which is difficult to drain by gravity. The existing natural features and pattern of development already create flooding issues in Lower Hutt. Options are being developed to handle the existing risks from flooding.

Therefore, the assessment of stormwater flooding was based on an assumption that planning and building restrictions will require new development to achieve hydraulic neutrality in all rainfall events up to and including the 1 in 100-year rainfall event, including the predicted impacts of climate change. Under this assumption stormwater risks would not be increased by increased population and its associated development. With this assumption the stormwater modelling results are relevant for today as well as for 2047.

For the stormwater modelling, Hutt City is divided into four stormwater catchments: Petone, Wainuiomata, Stokes Valley, and Hutt CBD/Waiwhetū. The hydraulic modelling of stormwater in the Hutt CBD/Waiwhetū catchment is not complete. The modelling indicates that there is stormwater

infrastructure enabled development capacity in the long term in the Wainuiomata catchment. The Stokes Valley catchment study is still ongoing. Preliminary results for Petone indicate likely significant limitations on development capacity due to its low-lying nature. For other areas, development is not enabled in the flood hazard areas along the rivers and large streams. In general, however, for most areas development can occur in combination with adequate planning provisions, and existing issues will need to be addressed regardless of future growth.

7.2 Transport

7.2.1 Local Road Network

The Hutt City Council Transport Division has provided an assessment of the local road network for Lower Hutt. The full assessment is attached as Appendix 3.1. The report should be read alongside this summary.

The Lower Hutt local road network is relatively uncongested at peak times with little significant congestion detected. The key features of the Lower Hutt road network can be summarised as follows:

- there is no pattern of fatal or serious injury road crashes that indicates a particular safety issue with any one part of the Lower Hutt road network;
- traffic flows into and out of the Lower Hutt CBD are distributed across at least 12 different routes;
- the Esplanade along the Petone foreshore is at capacity during peak times and there is a project underway for an alternate route across the valley floor that provides increased resilience, capacity and mode choice.
- some queuing occurs on the approaches to the High Street intersection with Daysh Street and Fairway Drive during both the weekday morning and evening and Saturday midday peaks.
- some congestion occurs within the CBD on Saturday associated with traffic accessing Queensgate and the Riverbank Market
- some queuing of vehicles turning right into and out of Waiwhetū Road at the intersection with Whites Line East occurs during the weekday morning peak.
- some queuing occurs during the evening peak for traffic accessing the Ewen Bridge, particularly from Queens Drive and High Street.

State Highway 2 provides the major roading connection between the Hutt Valley and Wellington. The intersections between the local road network and State Highway 2 all experience congestion during the morning and evening peaks.

There is significant traffic congestion on weekday mornings for southbound traffic heading towards Wellington on State Highway 2 to the south of Petone. Similar congestion occurs on weekday evenings as traffic exiting Wellington is joined by traffic from State Highway 1 at Ngauranga Gorge.

The existing constraints may compound if traffic volumes continue to grow with the expected population growth. However, a significant investment in the city's active mode network coupled with an increased focus on public transport could lead to a reduction in private vehicle use.

Additionally, a number of improvement projects intended to address the most critical existing constraints have been identified and are in various stages of planning.

7.2.2 State Highway Network

Waka Kotahi have provided an update to assess the impact of the state highway network on capacity and demand for business and housing land. This update is attached as Appendix 1.6.

According to Waka Kotahi overall capacity of the state highway is not a major constraining factor for development capacity in Lower Hutt, provided vehicle travel demand is managed to enable mode shift. Improvements are also planned to SH2 to improve safety outcomes.

Travel on SH2 through Lower Hutt has a pronounced commuter peak, with a similar commuter peak on the Melling and Hutt rail lines. Te Ara Tupua is expected to open in late 2024 providing a safe walking and cycling link between Ngauranga and Melling via Petone. This will enable modal shift away from driving for journeys between the Wellington City Centre and Lower Hutt.

Upgrades to the Melling Interchange, delivered as part of RiverLink, will alleviate growth constraints in the central city. The interchange will also improve safety, reliability and transport choice by providing more efficient travel in peak periods and separating pedestrians and cyclists from traffic.

7.2.3 Public Transport

A public transport assessment has been provided by the Greater Wellington Regional Council. The full assessment is attached as Appendix 1.5.

Rail plays a significant role in providing access from the Hutt Valley to the Wellington CBD. The urban rail network serves the Hutt Valley with high capacity, long distance commuter services. This rail network helps meet demand for travel from the Lower Hutt Valley to the Wellington CBD during peak periods and provides a means of bypassing road congestion on State Highway 2. Ongoing upgrades to the Hutt Valley line will improve reliability and frequency of train services. These upgrades include double tracking between Trentham and Upper Hutt, replacing overhead power systems, and installing new power supply for signals.

Lower Hutt is also served by a number of bus routes which provide all day services at low to medium frequency within suburban areas, and support the rail network with connecting feeder services. The capacity of the bus network is not currently an issue in the Hutt Valley but there is poor utilisation of existing services. Further intensification of existing urban areas will help improve the viability of bus services. Greater Wellington Regional Council is currently considering upgrades to core Lower Hutt bus services to achieve an all-day frequency of 7.5 to 15 minutes.

Overall public transport does not present any critical constraints on growth in Lower Hutt. However, further increases in capacity and frequency of services will be needed to service growth over the long term.

7.3 Social Infrastructure

7.3.1 Open Space

Hutt City Council's Open Space network has been assessed internally by council staff. The full assessment is attached as Appendix 3.2. This assessment only takes into account the Open Space network owned and administered by Hutt City Council. Lower Hutt also has significant areas of open space managed by Greater Wellington Regional Council and the Department of Conservation.

Hutt City Council currently manages 349 reserves comprising 2781 hectares.

Council, through its Reserves Strategy, aims to have a reserve within an 'easy walking distance' of all residential housing within its urban areas. An easy walking distance is defined as 400 metres - the distance that an elderly person or young child can generally walk in 8.5 minutes. A desktop exercise using GIS mapping tools indicates that over 98% of households in the current urban area are within a 400-metre radius of open space.

Lower Hutt has sufficient reserve land to accommodate formal sport and is likely to for the foreseeable future.

A 2012 review identified a small number of gaps in the distribution of formal playgrounds in the City based on a play space being within 600 metres of residents (direct line). Council has 62 playgrounds in total.

Greater Wellington Regional Council provided an assessment of regional open space as an input into the 2019 HBA. According to this assessment Lower Hutt has significant areas of regional open space within its boundaries. Nearly 50% of the total land area of Lower Hutt is made up of public open space and a large area of this is in regional parks.

Lower Hutt therefore has sufficient regional open space to meet the recreation needs of the community for the foreseeable future.

7.3.2 Education

The Ministry of Education has provided an assessment of school rolls and capacity for the region. This assessment, attached as Appendix 1.8, outlines the current capacity of schools, not their ability to increase their capacity in the future.

The Ministry of Education splits Lower Hutt into three zones: Wainuiomata, Lower Hutt South, and Lower Hutt North. The Wainuiomata and Lower Hutt North zones currently have spare capacity at both primary and secondary levels. The Lower Hutt South zone has spare capacity at primary level but the one state secondary school in the zone is at capacity. The Ministry of Education summary for Lower Hutt is as follows:

7.3.2.1 Wainuiomata:

- There are six state primary schools and one state-integrated school in this catchment. There is space for 660 students in the state school network and space for 60 students in the state-integrated network.
- There is one secondary school in Wainuiomata which currently has space for 400 students. The first stages of a redevelopment of the school started recently.

7.3.2.2 Lower Hutt South:

- There are 12 state primary schools and five state-integrated schools in this catchment. There is space for 700 students in the state primary network and 120 students in the state-integrated primary network.
- There is one state secondary school (Hutt Valley High School) and three state-integrated secondary schools. Hutt Valley High School is at capacity, although it has around 180 students from outside their enrolment scheme. There is space for 40 students in the state-integrated secondary school network.
- There is one state-integrated composite school, Raphael House Rudolf Steiner Area School. This school has space for 40 students.

7.3.2.3 Lower Hutt North:

- There are 14 state primary schools and two state-integrated primary schools in this catchment. The state schools have space for around 860 students, and the state-integrated schools have space for around 275 students.
- There are two state secondary schools in this catchment, (Taita College and Naenae College). They have space for around 450 students. In May 2020 the government announced a redevelopment for Taita College.
- There is one state-integrated composite school, Wā Ora Montessori School. It has space for around 50 students.

8 Analysis of housing market and impact of planning

Clause 3.23 of the NPS-UD requires every HBA to include analysis of how the local authority's planning decisions and provision of infrastructure affects the affordability and competitiveness of the local housing market. The analysis must be informed by:

1. market indicators, including:
   a. indicators of housing affordability, housing demand, and housing supply; and
   b. information about household incomes, housing prices, and rents; and
2. price efficiency indicators.

The following sections outline a range of relevant market and price efficiency indicators produced by the Ministry of Housing and Urban Development (HUD), and the Ministry for the Environment. Figures for Wellington City, and the Wellington Region, have been included as a point of comparison with Lower Hutt. A subsequent discussion considers the implications of these indicators.

8.1 Development trends – Market indicators

8.1.1 Residential Sales Prices

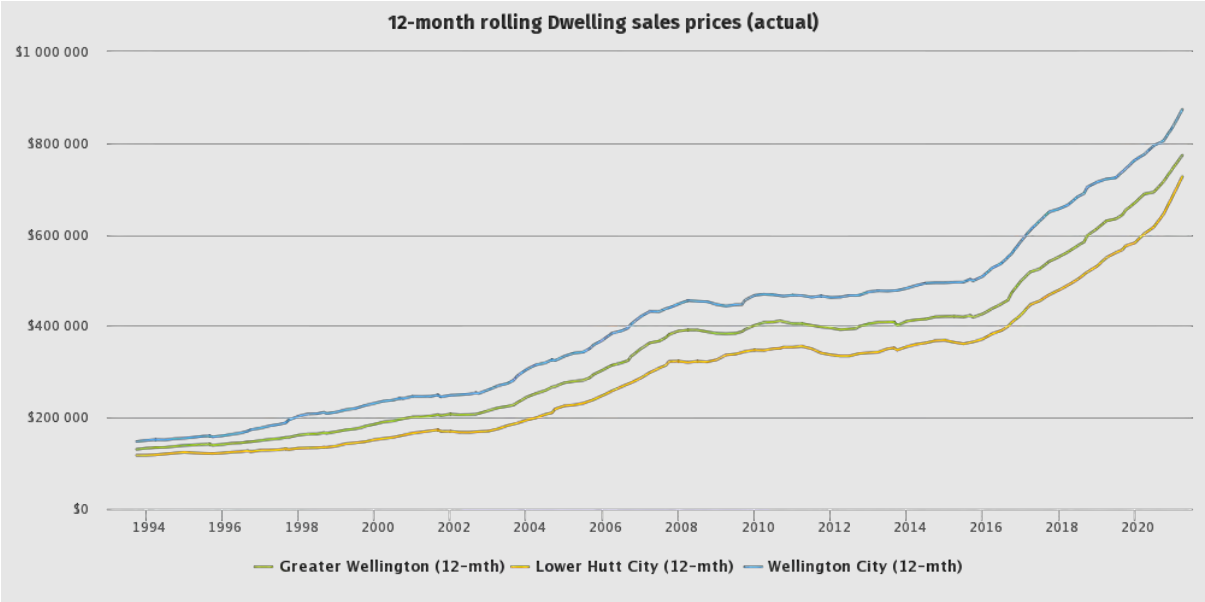

Figure 3.2. Median residential dwelling sale price for Lower Hutt. Source: HUD.[7]

The Residential Sales Price indicator shows a significant increase in sales prices in Lower Hutt commencing in early 2016, following a period of relatively flat growth from 2008 to 2015, and an earlier period of growth through the early 2000s. There has been a sharp increase in the rate of growth since 2020. This increase in sales prices in Lower Hutt broadly tracks with the regional trend.

[7] *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.*

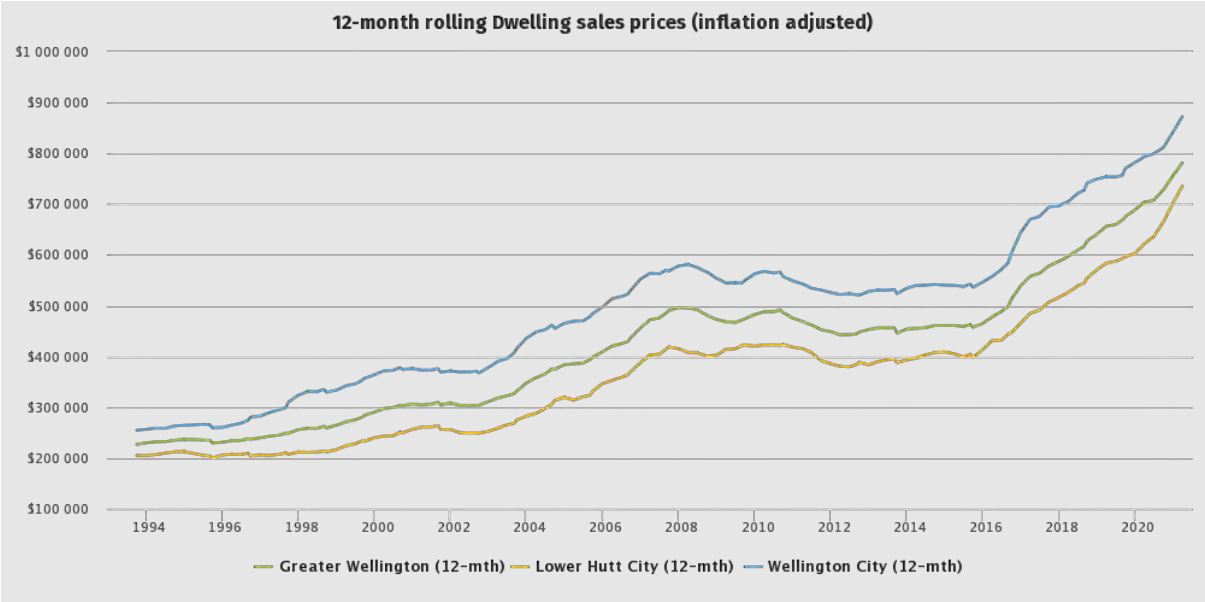

Figure 3.3. Median residential dwelling sale price for Lower Hutt City adjusted for inflation. Source: HUD.

The indicator above shows the median prices of residential dwellings sold in each quarter adjusted for inflation[8]. The inflation adjusted dwelling sales price indicator shows a pronounced trend of rising house prices in Lower Hutt commencing from about 2015.

[8]*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 inflation adjusted terms with a base period of the most current period. Note that when we remove the effects of inflation prices are higher in the past compared with unadjusted prices when viewed from today's prices.*

8.1.2 Residential Rents[9]

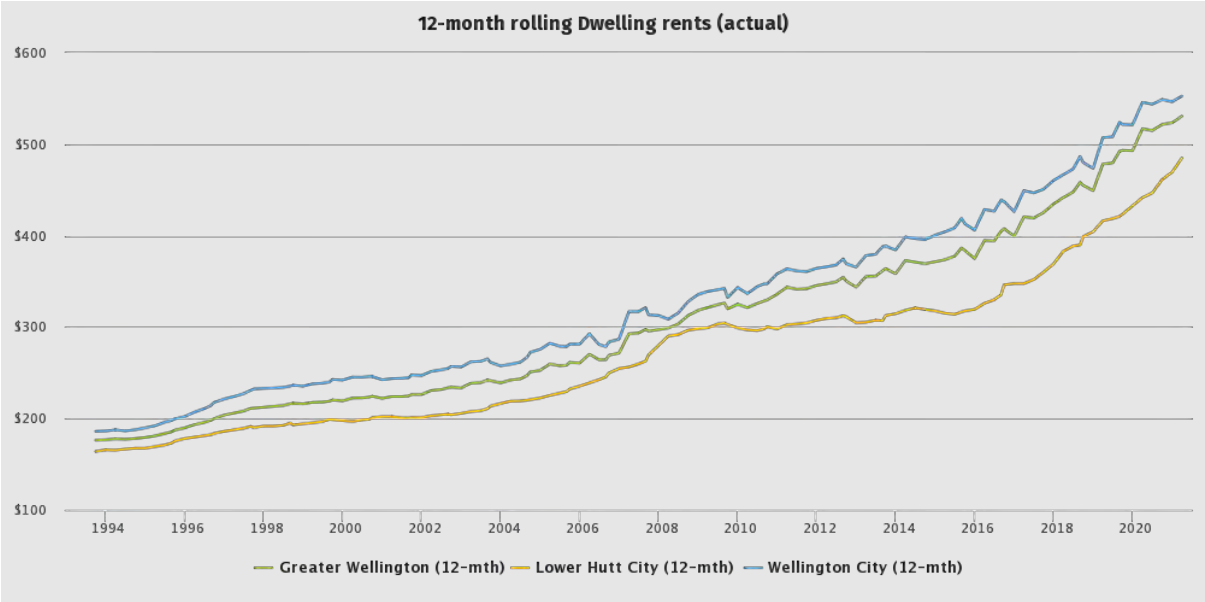

Figure 3.4. Lower Hutt City average dwelling rents. Source: HUD.

The rent indicator for Lower Hutt city shows rents rapidly rising since 2015, following little to no growth between 2010 and 2015. There was also an earlier period of growth between 2002 and 2008. The rise in rents in Lower Hutt roughly tracks with the Wellington region and Wellington City but the latest period of growth seems to have commenced slightly later for Lower Hutt in comparison.

[9]*This indicator reflects nominal mean rents as reported in new rental bonds lodged with MBIE. The mean used is a geometric mean. The reason for using this mean is that rents cluster around round numbers, and tend to plateau for months at a time (spiking up by say $10 or $20 at a time). This makes analysis of time series difficult and using the geometric mean is a way of removing this clustering effect. Prices are presented in nominal terms; they have not been adjusted for general price inflation. The data is for private bonds only and so excludes social housing.*

8.1.3 Housing Affordability

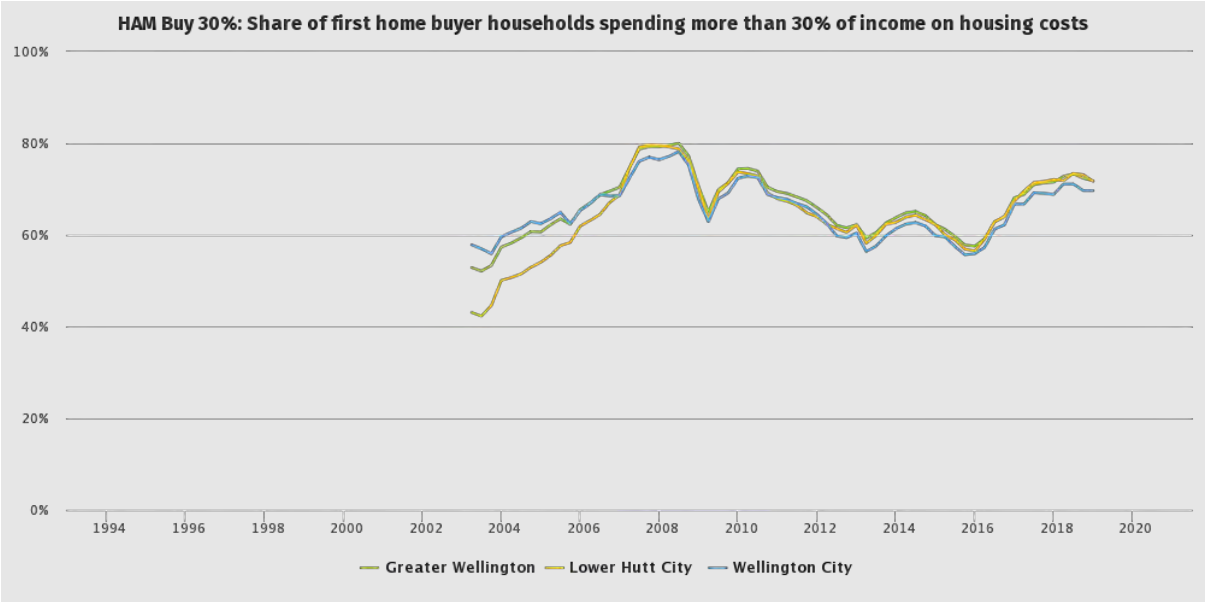

Figure 3.5. Housing Affordability Measure (Buy) for Lower Hutt City. Source: HUD.

The Housing Affordability Measure (HAM) measures trends in housing affordability for the first home buyer household.

For potential home-owning households, HAM Buy calculates what their residual income would be after housing costs if they were to buy a modest first home in the area in which they currently live. Affordability is affected by dwelling prices, mortgage interest rates and the incomes of rental households. A higher number on the chart indicates more households are below the average and a lower level of affordability.

There is a strong relationship across the three areas compared above which is a sign of the interconnectedness of these markets. The indicator shows that by this measure Lower Hutt is slightly less affordable than Wellington City and Greater Wellington. In general, the indicator shows continuing levels of unaffordability in Lower Hutt. However, this indicator has not been updated by HUD since 2018.

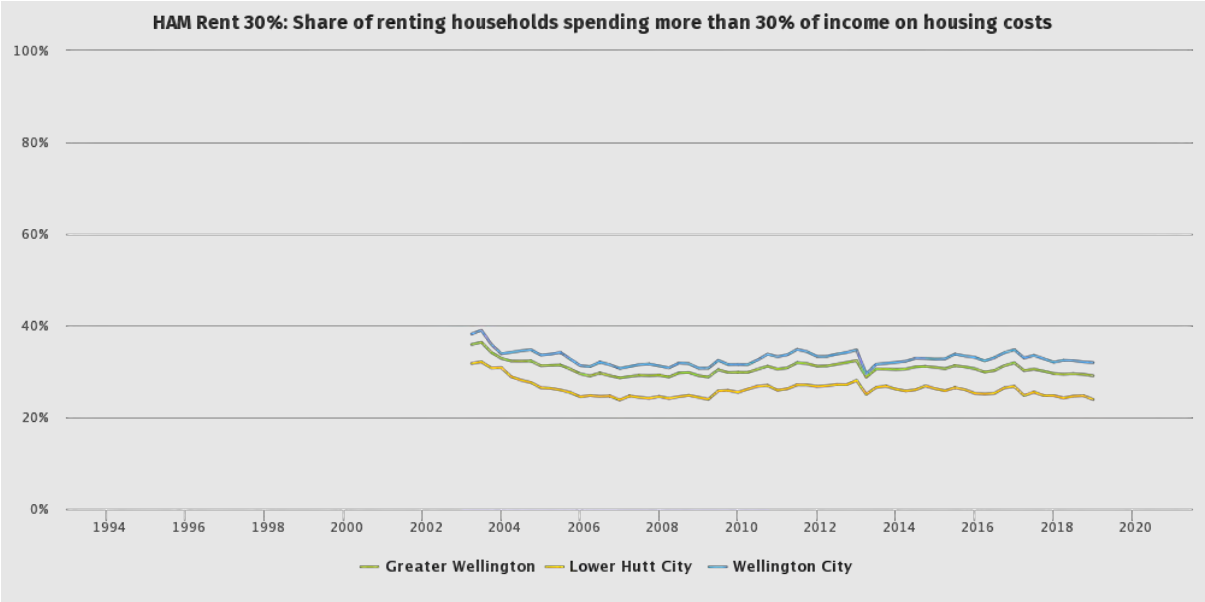

Figure 3.6. Housing Affordability Measure (Rent) for Lower Hutt. Source: HUD.

The Housing Affordability Measure (HAM Rent) measures trends in housing affordability for renting households. For renting households, HAM Rent calculates what their residual income would be after housing costs. A higher number on the chart indicates more households are below the average and a lower level of affordability. Lower Hutt again shows lower levels of affordability than Wellington City and the Greater Wellington region.

8.1.4 New dwelling consents compared to household growth[10]

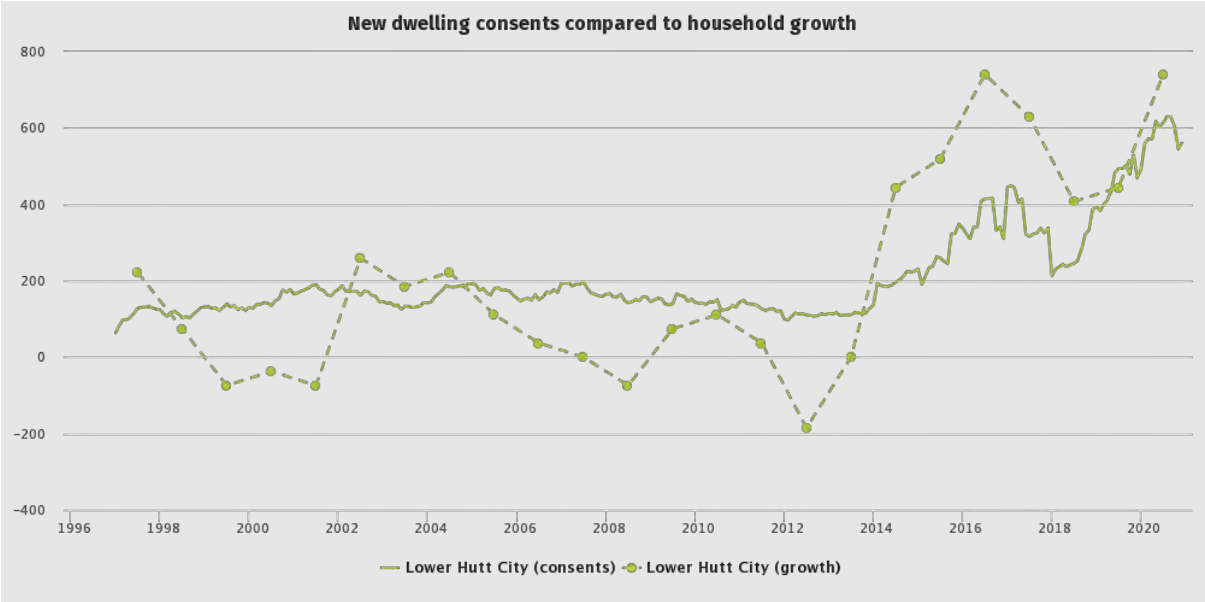

Figure 3.7. New dwelling consents compared to household growth for Lower Hutt. Source: HUD.

The comparison of new dwelling consents to household growth shows that prior to 2014 the growth in new dwelling consents generally outpaced the growth in new households in Lower Hutt. Since 2014 however household growth has exceeded new dwelling consents and this broadly coincides with the period of rapid rises in sales prices and rents observed earlier in this assessment. The number of dwelling consents approved has increased rapidly since 2018 but is still being outpaced by household growth.

8.1.5 Price efficiency indicators

Clause 3.23 of the NPS-UD requires councils to use price efficiency indicators to inform analysis of housing markets and the impact of planning. These indicators seek to provide a deeper insight into the operation of the land market and planning interventions in it.

The Ministry of Housing and Urban Development (HUD), and the Ministry for the Environment provide information on four such indicators:

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

[10] *This indicator approximates the demand for, and supply of, new dwellings. It measures changes in demand and how responsive supply is. The number of new dwelling building consents is lagged by six months (presented as a 12 month rolling average), to account for the time taken from consenting to completion. It is not adjusted for non-completions, or for demolitions. It is used as a proxy for supply.*

The most recent resident population, divided by the local average housing size, is used as a proxy for demand. Both sets of data are sourced from Statistics NZ.

8.1.6 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:

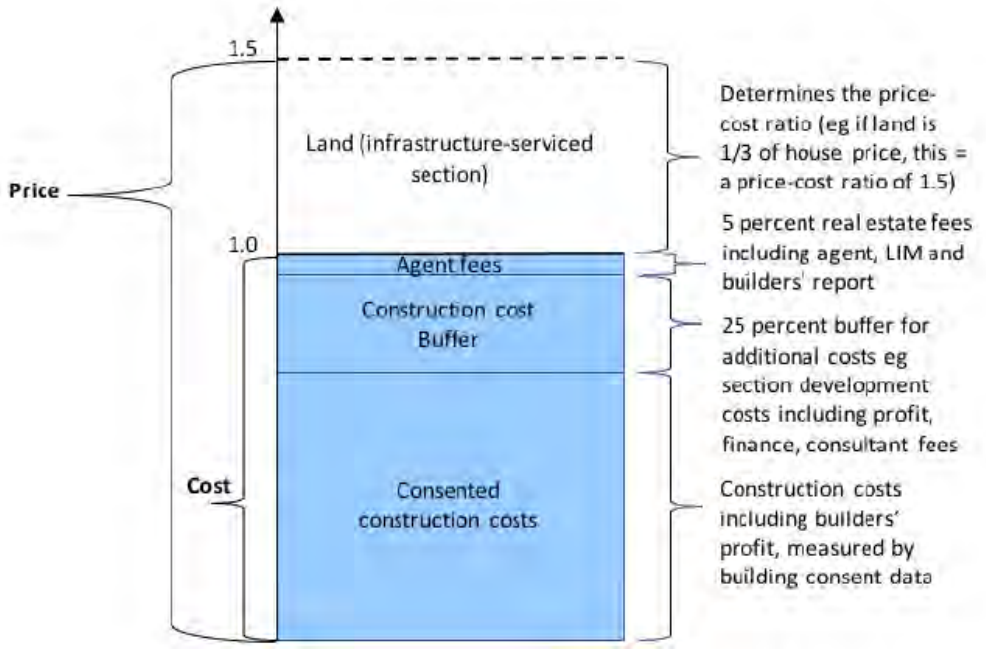

Figure 3.8. Composition of the Price Cost Ratio. Source: MBIE and MfE.

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 contraction.

A price cost ratio of between 1-1.5 is historically common where the supply of land, and development opportunities, are responsive to demand. As noted in the Evidence and Monitoring Guidelines[11] 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.

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 effect on house prices.

The price cost ratio for Lower Hutt is shown in Figure 3.9. It shows that the price cost ratio is approximately 1.7, suggesting that there may be an influence of land constraints and development opportunities on the price of dwellings. The Lower Hutt figure is lower than that of Wellington City but similar to Greater Wellington as a whole. This suggests that while land supply and development

[11] *National Policy Statement on Urban Development Capacity: Guide on Evidence and Monitoring*

opportunities are a constraint on affordability in Lower Hutt they are less of a factor than they are in Wellington City.

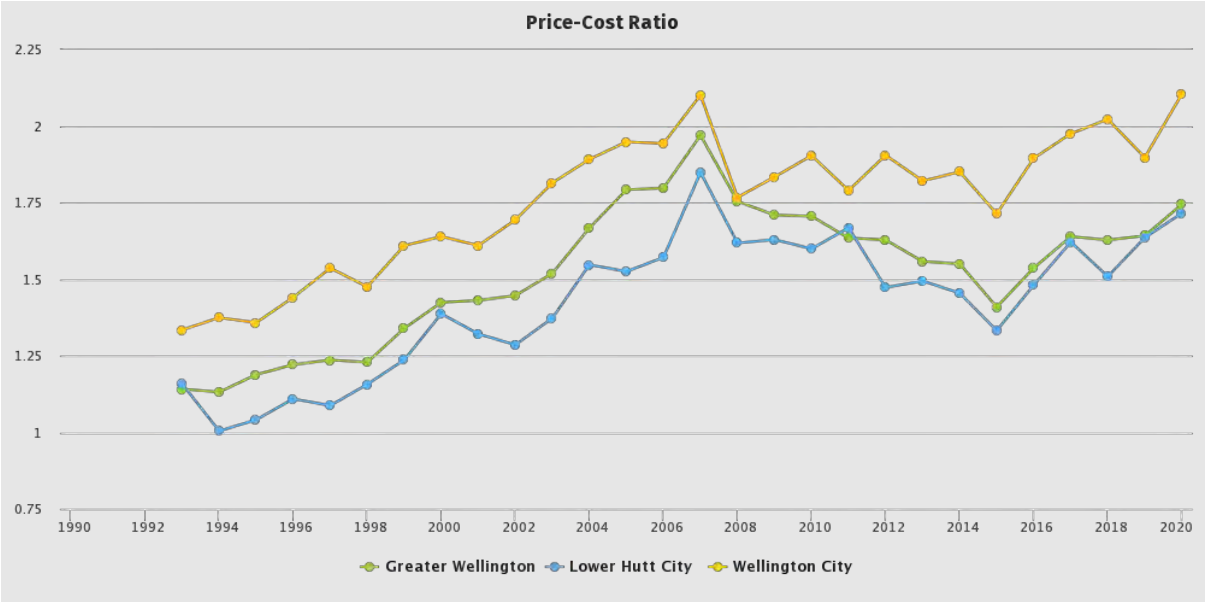

Figure 3.9. Price cost ratio for Lower Hutt. Source: HUD Dashboard.

8.1.7 Rural-urban differentials

The rural-urban differential seeks to measure the impact of land use regulations on urban sections on the edge of a city, compared with alternative land use regulations on the other side of the boundary. Traditionally this would be a distinction between residential and rural land uses.

The difference can be expressed as both a ratio and a dollar difference. The rural-urban ratio for the Wellington region is summarised in the table below.

Table 3.18. Rural-urban ratio for the Wellington region.

Urban Area	Ratio	Difference ($/m^2)	Difference ($/600m section)
Wellington	2.30	$201	$120,371

A ratio above 1.00 is a signal that zoning or other regulations are constraining development capacity, increasing urban land values. A ratio of 2.30 shows that urban land is worth more than twice the value of non-urban land. Additionally there is a per section difference of over $100,000. This suggests that there may be insufficient development capacity within the Wellington Region and that planning constraints are impacting on land costs. While these figures are for the wider Wellington region it is likely that these regional constraints are affecting house prices and rents in Lower Hutt.

8.1.8 Land Concentration

This indicator addresses land concentration, or more particularly land ownership concentration. The indicator attempts to show to what extent greenfield land is concentrated in ownership. This measure gives an indication of whether the decisions of a few individual landowners have the potential to significantly affect the supply and price of land for residential development, and hence affect housing supply. Generally, the potential for land banking is higher when land ownership is more concentrated.

The land concentration index score for Lower Hutt is 643. A higher number indicates a higher concentration of ownership. Lower Hutt has a much lower concentration of land ownership than Porirua or Upper Hutt, but higher than the Kāpiti Coast or Wellington City. However, the figure for Lower Hutt is somewhat skewed by the high concentration of land in ownership of Kāinga Ora (19.1% of land) and Hutt City Council itself (12.7% of land). If this publicly owned land is removed from consideration it is not clear that the concentration of land ownership in Lower Hutt presents a barrier to affordable housing supply at a city-wide level. However, the limited availability of suitable greenfield development areas in Lower Hutt means that there is the potential for land ownership concentration to hinder housing supply in specific areas.

8.1.9 Summary

A clear picture emerges from these indicators. Lower Hutt has experienced significant dwelling sales price increases and rent increases since about 2015. Household growth also began to outpace new dwelling consents in Lower Hutt from about 2015. This suggests that the failure of dwelling construction to keep up with household formation is leading to an emerging shortage of houses in Lower Hutt, and this housing shortage in turn is driving the rise in rents and sales prices. Lower Hutt may also be experiencing the spill-over effects of a much greater emerging housing shortage in Wellington City.

Recent changes to the City of Lower Hutt District Plan, such as Plan Change 43 and the removal of minimum parking requirements, have increased development opportunities in Lower Hutt, and there are signs that the market has responded to these with an uptick in housing construction. However, these changes have not been in place long enough to fully determine their full effect on affordability and housing market competitiveness.

8.2 Assessment of demand for housing by different groups in the community

Clause 3.23 of the NPS requires analysis of the housing market to include an assessment of how well demands for housing by Māori and different groups in the community are met.

Hutt City Council conducted a detailed assessment of demand and need in 2019[12], summarised below although with updated census and housing register information.

[12] *Housing Demand and Need in Hutt City, 2019 – http://iportal.huttcity.govt.nz/Record/ReadOnly?Tab=3&Uri=5560996*

8.2.1 Sizes and types of households

The 2019 assessment of housing found that the strongest growth in households was, and would continue to be, in one person and couple-only households, reflecting an aging population, and that the number and proportion of households who rent is likely to substantially increase. One person and couple-only households are projected to increase by 570 and 1,090 respectively from 2018-2038. This suggests an increasing need for smaller units compared to three or more bedroom houses.

8.2.2 Housing for Māori

At the 2018 census, Lower Hutt was home to 8,223 people who identified as Māori, 7.9% of the population.

Evidence suggests that affordability and availability of housing is an even greater issue for Māori than for the population in general. In Lower Hutt, 43.6% of Māori households own their home, as compared to 57.6% of non-Māori households. Nationally, Māori make up 37% of public housing tenants despite comprising 17% of the general population.

Hutt City Council is working in partnership with mana whenua to address housing needs for Māori, including through making special provision for papakāinga in the upcoming Intensification Planning Instrument.

8.2.3 Public housing

According to September 2021 figures for public housing in the Wellington Region[13], Lower Hutt has 3,317 public housing tenancies. Lower Hutt has 586 applicants on the public housing register. This is an increase of 65% over the previous three years, suggesting an increase in extreme housing need.

Lower Hutt has a large existing stock of state housing, much of which is well-located and served for intensification. Hutt City Council is working with Kāinga Ora to help enable redevelopment of this area in the upcoming Intensification Planning Instrument.

[13] *Public housing in Wellington Region, September 2021 quarterly report – https://www.hud.govt.nz/assets/News-and-Resources/Statistics-and-Research/Public-housing-reports/Regional-factsheets-September-2021/Housing-regional-factsheets-September-2021-Wellington.pdf*

9 Conclusion

This HBA has shown that:

Residential

- Lower Hutt has a theoretical District Plan enabled residential capacity of 120,518 dwellings.
- Once tested for feasibility, the feasible residential capacity falls to 39,077 dwellings.
- Applying a realisation test suggests that of that feasible capacity, only 16,847 dwellings will likely be realised over the next 30 years based on today's costs and sales values.
- The anticipated demand for housing over the next thirty years, including a competitiveness margin, is 24,773 households.
- Contrasting that realisable supply with the anticipated demand over the same time leads to an anticipated shortfall of 7,926 dwellings over the course of the next 30 years.
- The city has experienced significant price increases in both house and rental costs.

Infrastructure

- Lower Hutt has a number of constraints across its three waters network that, without intervention, will have a detrimental effect on the ability to realise the development capacity available to the city.
- Constraints vary in scale and severity across the network, and across the different types of water reticulation.
- Projects for relieving constraints in Lower Hutt's transport network have been identified and will need funding.
- Other community infrastructure such as open space and schools are largely sufficient to accommodate future growth.

Overall this HBA has identified that Hutt City Council needs to provide for additional residential development capacity to meet projected population growth. The timing of this HBA is helpful in informing Lower Hutt's intensification planning instrument and full district plan review. Through this process Hutt City Council can meaningfully address requirements under the NPS-UD to provide for sufficient development capacity.

10 Next Actions

The NPS-UD requires councils to prepare an HBA every 3 years. Prior to the preparation of the next HBA, the Hutt City Council will continue to monitor a range of indicators relating to the Lower Hutt property market.

Hutt City Council is currently preparing an intensification planning instrument to implement the intensification policies of the NPS-UD. It is also in the early stages of developing Te Mahere Tupu, a spatial plan that would show intentions and aspirations for future growth including planning, infrastructure, community, and other supporting elements. This will also inform the full review of the district plan. These will provide opportunities to address the deficiencies in infrastructure and residential development capacity identified in this report.

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Appendix 1.2	Infill and redevelopment plan-enabled residential capacity modelling methodology
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Appendix 1.4	Metlink public transport network overview and the role of public transport in responding to population growth
Appendix 1.5	Assessment of the State Highway Network and land transport issues for the Wellington Region – Waka Kotahi
Appendix 1.6	Overview of regional open space – Greater Wellington regional parks
Appendix 1.7	Ministry of Education school roll information capture 2021
Appendix 3.1	HCC Roading Infrastructure Assessment
Appendix 3.2	HCC Open Space Infrastructure Assessment
Appendix 3.3	Hutt City Residential Capacity Report – Property Economics

Appendix 3.1

HCC Roading Infrastructure Assessment

Kāpiti Coast District Council · poriruacity · Te Kaunihera o Te Awa Kairangi ki Uta Upper Hutt City Council · Hutt City Te Awa Kairangi · Absolutely Positively Wellington City Council Me Heke Ki Pōneke · Greater Wellington Te Pane Matua Taiao

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Assessment of Hutt City Road Network

Under National Policy Statement on Urban Development 2020

May 2021

Version Control

Version	Date	Notes
Draft 1.0	7 May 2021	First Draft

Purpose

This paper presents an assessment of Hutt City Council's road network to meet the requirements of the National Policy Statement on Urban Development (NPS-UD).

Under the NPS-UD council must provide sufficient development capacity to meet expected demand for housing. In order for this development capacity to be considered *sufficient it* must be *infrastructure ready.*

Development capacity is *infrastructure-ready* if:

a) in relation to the short term, there is adequate existing development infrastructure to support the development of the land

b) in relation to the medium term, either paragraph (a) applies, or funding for adequate infrastructure to support development of the land is identified in a long-term plan

c) in relation to the long term, either paragraph (b) applies, or the development infrastructure to support the development capacity is identified in the local authority's infrastructure strategy (as required as part of its long-term plan)

This assessment is not contingent on the location of development capacity, but assesses the infrastructure as it currently stands, and its potential to absorb further growth over the next 30 years.

For the purpose of this paper the scope of the road network includes facilities for walking, cycling, public transport and motorised traffic.

Hutt City Context

The Hutt City Council 2012-2032 Urban Growth Strategy contains a target of increasing the population of Hutt City to at least 110,000 people by 2032 (an increase of approximately 12,000 persons from the 2013 census) with an associated target of increasing the number of new homes in the City by at least 6,000 over the same period. The Urban Growth Strategy sets out the intention to provide this level of population and housing growth through:

> (i) residential intensification in existing urban areas including Waterloo, Epuni, residential areas adjacent to Lower Hutt CBD, Eastbourne, Petone and around suburban shopping centres;
> (ii) new greenfield development in Kelson, Wainuiomata and Stokes Valley; and
> (iii) additional residential development in rural areas.

The 2019 Housing and Business Development Capacity Assessment modelled projected population growth and assessed housing and business development capacity. The key findings of this assessment for Hutt City were as follows:

- The population of the city is projected to grow by between 9,515 and 20,359 people by 2047 from a base population of 101,200 people (2013).
- To accommodate this growth, the city will require between 6,105 and 11,256 additional dwellings. This growth in the need for housing is driven by population growth, as well as decreasing average household size.

District Plan Change 43 is intended to facilitate growth through providing for greater housing capacity and a wider range of options for housing styles and sizes at medium densities within the existing urban area in targeted locations.

The Regional Land Transport Programme, Hutt City's Infrastructure Strategy 2018 – 2048, Long Term Plan and Transport Activity Management Plan outline the strategic direction for our transport network development which includes the promotion of active modes and public transport.

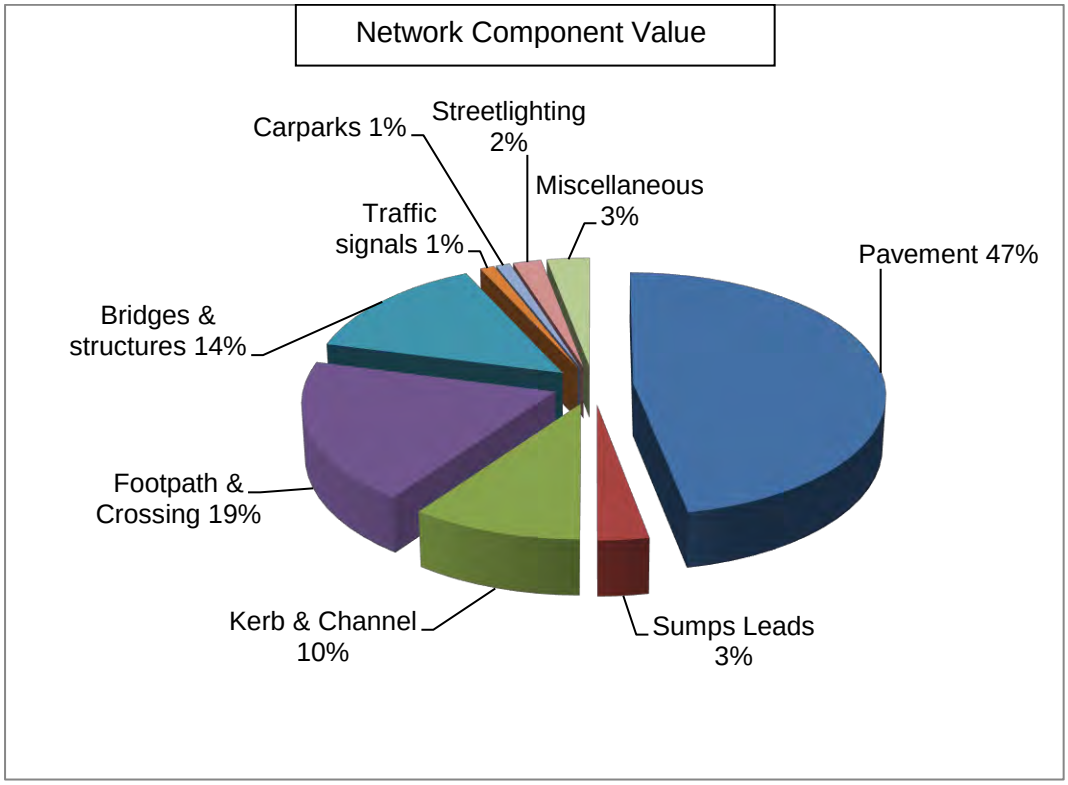
These documents and the analysis carried out when District Plan Change 43 was proposed form the basis of this assessment.

Overview of the Local Road Network

Hutt City Council's Transport Activity Management Plan provides a comprehensive summary of the condition and performance of the city's transport network and supports the following observations;

The city has an aspiration for economic and population growth and the strategies developed to support these goals are beginning to bear fruit. An aging demographic and our social wellbeing objectives require the transport network to provide for alternatives modes of travel, as well as accommodating the demands imposed by growth.
The economic activities within the city rely heavily on customer access from within the city and beyond, while the industrial activities rely on access within the city to regional and national transport links. The Seaview/Gracefield industrial area is the largest industrial area within the region, with Hutt City accounting for approximately 2.1% of the National GDP.
The urban area is elongated with outlying suburbs which results in just over 50% of the network being arterial and collector roads. The remainder is access and low volume roads. There are no unsealed roads and only 6% of the network is rural, predominantly secondary collector.
Effective, efficient and safe internal and external land transport is critical for an urban environment to function successfully and grow. The Hutt City transport system consists of multi modal networks linking the CBD, suburbs and surrounding cities.
HCC's Transport Activity supports the economic wellbeing of the city by responding to growth and development while promoting social and cultural wellbeing via our Road Safety Programme, Road Asset Maintenance and Renewal programme, and the Traffic Services Programme.
Our objectives are met through the operation and maintenance of a network that includes 485 kilometres of roadway, 686 kilometres of footpath and walkway, 70 bridges, 14,029 streetlights, 24 sets of traffic signals, 151 Pay & Display meters and 1,800 Pay & Display car-parks. The total replacement cost of the network is $902,803,000 as at December 2017.

Road Network Component Value – Chart

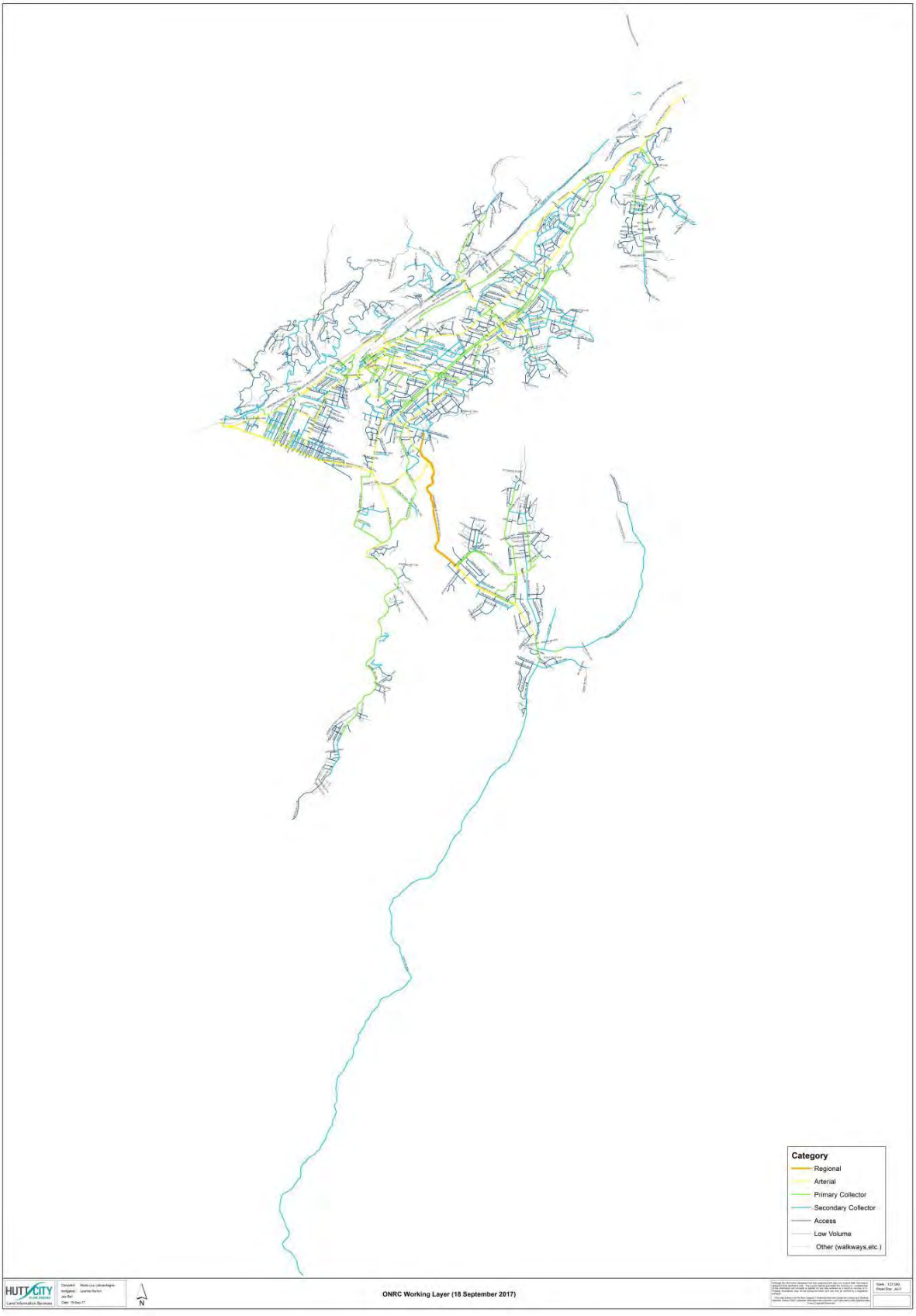


NZTA introduced the One Network Road Classification (ONRC) system to enable operational and cultural change in road activity management. The ONRC is a simple, but important, classification system based on traffic volume and road function. It reflects current travel demand and how communities are interconnected.

The Road Efficiency Group (REG) partnership is evolving the ONRC classifications to an updated system to be known as the One Network Framework (ONF).

The ONF will introduce the importance of adjacent land use and place functions in defining how the network should look and feel at any location. The ONF provides an opportunity for more integrated delivery of regional outcomes.

The following map illustrates the current ONRC classification of the Hutt City roading network;



HUTT CITY
Land Information Services

ONRC Working Layer (18 September 2017)

How Performance is Monitored

The Council monitors levels of service using seven measures:

- Resident satisfaction with seven aspects of the road assets and service –street lighting, litter, graffiti, traffic control, footpaths, roads, and parking
- Road condition index - measures quality of the road surface
- Smooth travel index – measure the quality of the ride
- Accident trend – for fatal and serious injury accidents measures safety
- Response to service requests – measures service delivery and promptness of reply
- Resurfacing achieved – shows whether the Council is doing adequate maintenance work to protect the assets
- Quality of footpaths – shows whether the footpaths are safe and meet the service standard for footpaths

We also receive performance feedback from various sources including;

- Feedback from consultative processes such as the LTP and the Annual Plan.
- Feedback from Council staff and the operations and maintenance contractor.
- Management knowledge of existing asset performance.
- Direct operational feedback from customers, community groups, industry and Councillors.
- NZTA's 'Maintenance Guidelines for Local Roads' document.
- Cycleway consultation group.
- Pedestrian consultation group.
- Eastern Bays walkway consultation group.
- Disabled persons consultation group.

New Performance Measures have been developed as part of the ONRC regime and these are important comparators with our peers. Councils are still validating the data used in determining the new measures to ensure accurate and relevant comparisons are made.

How Constraints and Issues are Responded To

Drivers of Demand

The future demand for roading network services in Hutt City will be driven by:

- Social – future demographic trends and the need to service population growth in the city.
- Changing customer expectations and the need to upgrade services in the parts of the network where gaps exist between existing and specified level of service.
- Changes in travel preferences.

- Environmental trends and changing expectations about how the adverse effects of roading and parking activity are mitigated.
- Technological changes.
- Economic changes, considering growth and the economic strength of the city.
- Commercial trends.

Increasing standards and community expectations will have an influence on the nature and design of future transport facilities. Furthermore, environmental issues are becoming increasingly important in decisions about the mode and form of future transport infrastructure. These environmental and social issues are identified and addressed in the Network Operating Framework from which the Network Operating Plan will be developed.

Responses to Constraints/Issues

Responses to constraints and issues relating to roading condition are normally covered by our maintenance and renewals strategies.

Maintenance

Maintenance strategies are designed to enable existing assets to operate to their service potential over their useful life. This is necessary to meet service standards, achieve target standards and prevent premature asset failure or deterioration. There are three types of maintenance:

- Programmed (proactive) maintenance - A base level of maintenance carried out to a predetermined schedule. Its objective is to maintain the service potential of the asset system.
- Condition maintenance - Maintenance actioned as a result of condition or performance evaluations of components of the road network system (e.g. weed spraying, bridge repairs). Its objective is to avoid critical asset or system failure.
- Response maintenance - Maintenance carried out in response to reported problems or system defects (e.g. pothole repairs). Its objective is to maintain day-to-day levels of service.

Renewals

The purpose of the renewal plan and the associated draft financial programme is to provide for the progressive replacement of individual assets which have reached the end of their useful life at a rate which maintains the standard and value of the system of assets as a whole. This programme does not increase the standards of service able to be provided, but maintains these standards at current levels. This programme must be maintained at adequate levels to maintain standards of service, and the overall quality of assets. Required levels of expenditure on the cyclic asset replacement programme will not be uniform but will vary from year to year and will reflect:

- the age profile of the system,

- the condition profile of the system,
- the ongoing maintenance demand, and
- the differing economic lives of individual assets which comprise the overall system of assets.

Failure to maintain an adequate cyclic asset replacement programme will be reflected in a decline in the overall standard of the system of assets. Thus Council aims to maintain this programme within a band of +/- 10% of the target programme on a cumulative basis. Where the actual programme falls below the cumulative budget target, the shortfall will be reflected in a reduction in the overall depreciated replacement cost value of the system. Age and condition profiles of roading network components will be used as reference points to determine forward renewal programmes. These programmes are intended to maintain the overall standard of the system.

Cyclic renewal works fall into two categories:

- Rehabilitation: Involves major work on an existing asset or asset component which is capitalised rather than expensed under maintenance. An example is pavement smoothing works to reinstate the quality of ride. Rehabilitation does not provide for a planned increase in the operating capacity or design loading. It is intended to enable the system to continue to be operated so as to meet the current standards of service.

- Renewal: Typically, complete replacement of an existing asset. Does not provide for a planned increase to the operating capacity or design loading. Some minor increase in capacity may result from the process of renewal, but a substantial improvement is needed before system development is considered to have occurred. An example is the renewal of kerbs and footpaths through the road reconstruction programme.

However, there are many response options to constraints and issues relating to network capacity. These include new assets, many of which are listed under the section on Planned and Budgeted Improvements, and works which upgrade or improve an existing asset beyond its existing capacity or performance in response to changes in traffic needs or customer expectations.

The capital works programme identifies two broad categories of projects planned:

Growth related – projects focused on meeting increased traffic or changes in traffic patterns

- Road widening
- Intersection upgrades including new traffic signals or controls
- New roads and bridges

Service level related – projects planned to improve the level of service

- Cycleway construction
- Bridge strengthening
- Neighbourhood street improvement works
- Footpath extensions

- Crash reduction projects

Planned and Budgeted Improvements

There are a number of transport infrastructure projects at various stages of planning from concept ideas through to funded and scheduled projects which may influence travel patterns and behaviour on the Hutt City road network. These projects include:

- Cross Valley Connection;
- Melling Interchange Upgrade;
- Melling Bridge Replacement;
- Relocation of Melling train station;
- CBD Eastern Access Route;
- Petone to Grenada Link;
- Petone Interchange Upgrade;
- Petone to Ngauranga Cycleway;
- Petone to Melling Cycleway;
- Beltway Cycleway;
- New cycling/pedestrian bridge linking the CBD with Melling Station;
- Eastern Bays Shared Path

More detail can be provided on these projects if required.

Linkages to State Highways

State Highway 2 runs along the foot of the Western Hills and provides a roading connection between Upper Hutt, the Wairarapa and beyond, to Wellington. Along with State Highway 58 it provides a connection between Pauatahanui and the Kapiti Coast and the Hutt Valley. Connections onto State Highway 58 in Hutt City are limited to the State Highway 2 intersection and the nearby intersection with Hebden Crescent. Opportunities for Hutt City traffic to access or leave State Highway 2 exist at the following locations going from south to north:

- Petone interchange;
- Priests Avenue and McKenzie Avenue;
- Dowse interchange;
- Melling interchange including Block Road and Tirohanga Road;
- Pomare Road and Wairere Road;
- Grounsell Crescent;
- Kennedy Good interchange including Major Drive;
- Owen Street;
- Hebden Crescent; and
- Haywards Interchange including Manor Park Road.

Assessment of Existing Constraints

The intersections between the local road network and State Highway 2 all experience congestion during the morning and evening peaks. In particular Melling and Petone are under capacity and have poor safety records. The Melling Interchange Upgrade as part of the River link Project and the Petone Interchange Upgrade which should accompany the Cross Valley Connection and Petone to Grenada Project considerations are critical in improving vehicle movements through and around Hutt City.

There is significant traffic congestion on weekday mornings for southbound traffic heading towards Wellington as a result of the limited capacity of State Highway 2 to the south of Petone. Similar congestion occurs on weekday evenings as traffic exiting Wellington is joined by traffic from State Highway 1 at Ngauranga Gorge.

The local Hutt road network generally operates effectively at peak times but there are some locations where it is at capacity. The key features of the Hutt City road network can be summarised as follows:

- currently there is no pattern of fatal or serious injury road crashes that indicates a particular safety issue with any one part of the Hutt City road network. Such issues on the Wainuiomata Hill road were addressed in 2000 with the introduction of a high friction surfacing programme.
- traffic flows into and out of the Hutt CBD are distributed across at least 12 different routes;
- the Esplanade along the Petone foreshore is at capacity during peak times and there is a project underway for an alternate route across the valley floor that provides increased resilience, capacity and mode choice.
- some queuing occurs on the approaches to the High Street intersection with Daysh Street and Fairway Drive during both the weekday morning and evening and Saturday midday peaks.
- some congestion occurs within the CBD on Saturday associated with traffic accessing Queensgate and the Riverbank Market
- some queuing of vehicles turning right into and out of Waiwhetu Road at the intersection with Whites Line East occurs during the weekday morning peak.
- Some queuing occurs during the evening peak for traffic accessing the Ewen Bridge, particularly from Queens Drive and High Street.

The improvement projects mentioned earlier are intended to address the most critical existing constraints.

It should be noted that Hutt City Council has developed a Network Operating Framework which assists in assessing service level gaps in the network for all travel modes. A recently developed traffic model will assist in validating the existing service levels and understanding the impact of various initiatives on future service levels.

Assessment of Anticipated Constraints

The existing constraints will compound if traffic volumes continue to grow with the expected population growth. Further, if the proposed improvement projects are not implemented then more of the roading network will come under pressure. The traffic model will assist in identifying these locations as the areas of growth are understood.

However, a significant investment in the Hutt City's active mode network coupled with an increased focus on the public transport offer could lead to a reduction in private vehicle use.

Technological advances are also an important consideration in assessing future traffic volumes and consequent network constraints. There is a variance of opinion on the impact of autonomous vehicles, some predicting higher traffic volumes as roading capacity is effectively increased through closer following distances while others see more shared vehicle usage reducing total vehicle numbers.

Summary

In summary, Hutt City has a number of existing constraints in its transport network and has identified improvement projects to address these. Concurrently, Hutt City is investing heavily in its active mode network to provide attractive mode choices for its growing population.

Appendix 3.2

HCC Open Space Infrastructure Assessment

Kāpiti Coast District Council · poriruacity · Te Kaunihera o Te Awa Kairangi ki Uta Upper Hutt City Council · Hutt City Te Awa Kairangi · Absolutely Positively Wellington City Council Me Heke Ki Pōneke · Greater Wellington Te Pane Matua Taiao

Hutt City Open Space Network Assessment for NPS – UD

Update: April 2021

Previous version: March 2019

Introduction

1. This brief document summarises the open space network owned and administered by the Hutt City Council. It draws information from the Reserves Strategy (Reserves Strategic Directions 2016 -2026) and from the Valley Floor Review, key documents in the strategic management of the City's open space network.
2. HCCs total land holdings are unchanged from the last update to this document in March 2019.
3. While the assessment covers only Hutt City Council owned land, it is noted that almost half (49.4%) of the entire City consists of public open space managed as reserve. Open Space managed by the Department of Conservation, the Greater Wellington Regional Council and Hutt City Council is shown in the aerial plan in the appendix, providing the wider context in which this assessment has been undertaken. From a user perspective, ownership of open space is less relevant than its presence and availability.

Hutt City Council Owned Network Overview

4. Hutt City Council manages 349 reserves comprising 2,781 hectares, most of which are classified and protected under the Reserves Act 1977. The table below breaks this down into different categories of reserve.

Reserve Category	Quantity	Hectares
Nature	67	2,074
Sports and Recreation	55	303
Ecological Corridor	88	271
Cultural and Heritage	9	83
Neighbourhood	83	35
Drainage	29	7
Civic Space	13	5
Public Garden	5	3
Total	**349**	**2,781**

5. Reserve categories are based on the New Zealand Recreation Association Parks Categories (except for Drainage Reserves) and are applied according to a reserve's character and primary purpose. They are described more fully in the appendix 4.
6. Within these reserve spaces there are approximately 166 kilometres of walking and cycling tracks, mostly within the surrounding hills, (nature reserves) and 62 playgrounds mostly situated in neighbourhood reserves.

Network Sufficiency

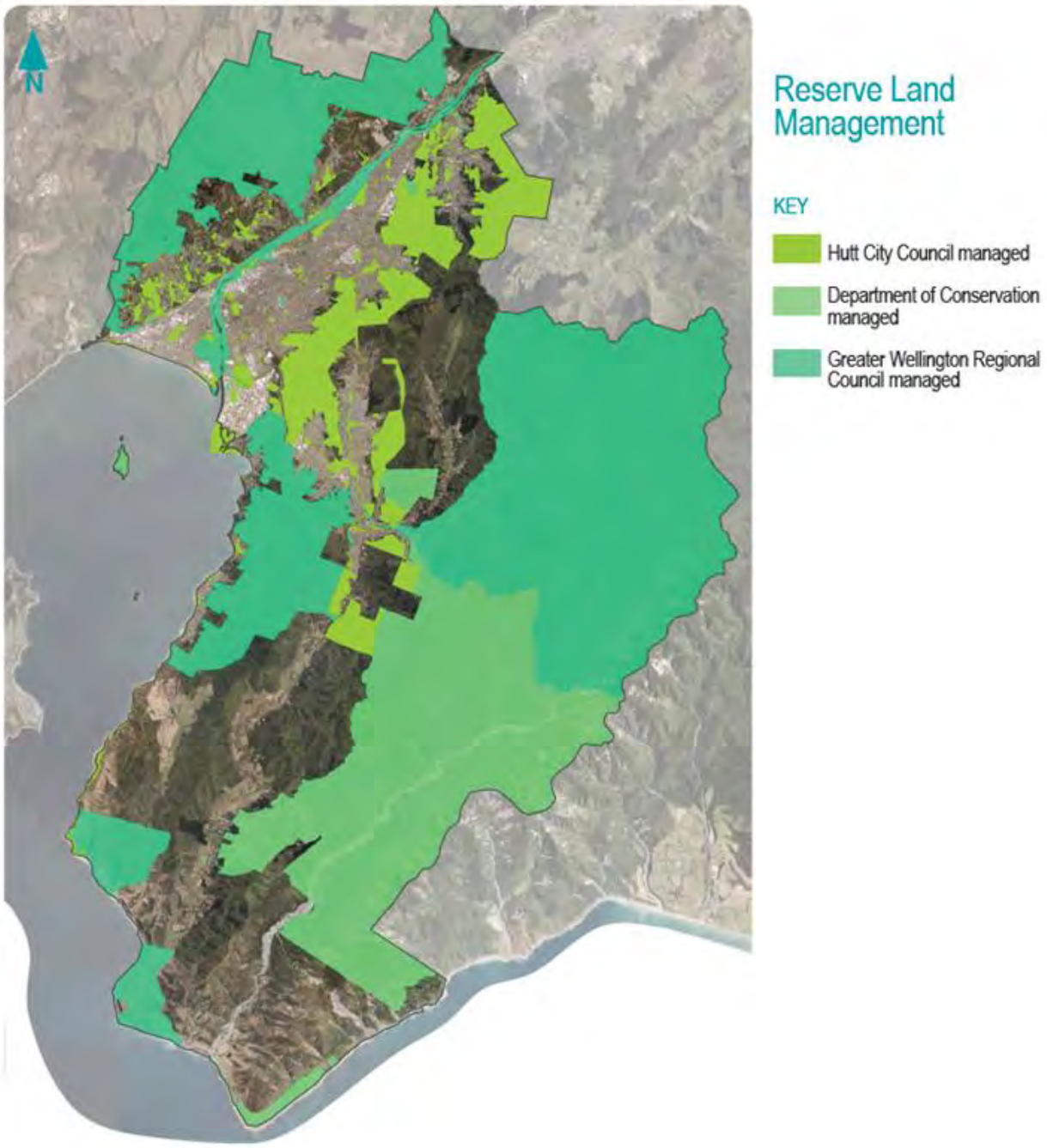
7. Council, through its Reserves Strategy, includes a service standard which aims to have a reserve within an easy walking distance from residential housing within its urban areas. An easy walking distance is defined as being within 400 metres or an 8.5-minute walk, which is the time it generally takes an elderly person or young child to walk 400 metres.
8. A desktop exercise using GIS mapping tools indicates that over 98% of households in the urban area are within a 400-metre radius of open space. This result excludes the rural areas largely within Wainuiomata and the Western Hills. A plan showing areas of the City that do not meet this standard is attached as Appendix 2.
    a. Appendices 5 & 6 show accessibility to neighbourhood reserves from areas on the valley floor. While most of the city has access to reserves, a large portion of those reserves are not actively managed e.g. bush reserves. While good for day hikes and exploring, these reserves do not provide amenities such as public toilets and playgrounds.
9. The Valley Floor Review, (a comprehensive review of reserve land on the most densely populated part of the City undertaken between 2013 and 2016) identified that the main two shortcomings of open space for the Valley floor were a lack of connectivity and reserve development, suitable to meet the needs of local communities. Council has developed an action plan and funding in the Long-Term Plan to address these two issues.
10. A review of the Wellington region's sports grounds undertaken in 2014 showed that Hutt City has sufficient reserve land to accommodate formal sport. This is unlikely to change in the foreseeable future given the overall participation trends for formal sports along with the development of artificial playing surfaces that have enabled more intensive use and thereby increasing overall capacity.

Network Gaps and Pressures

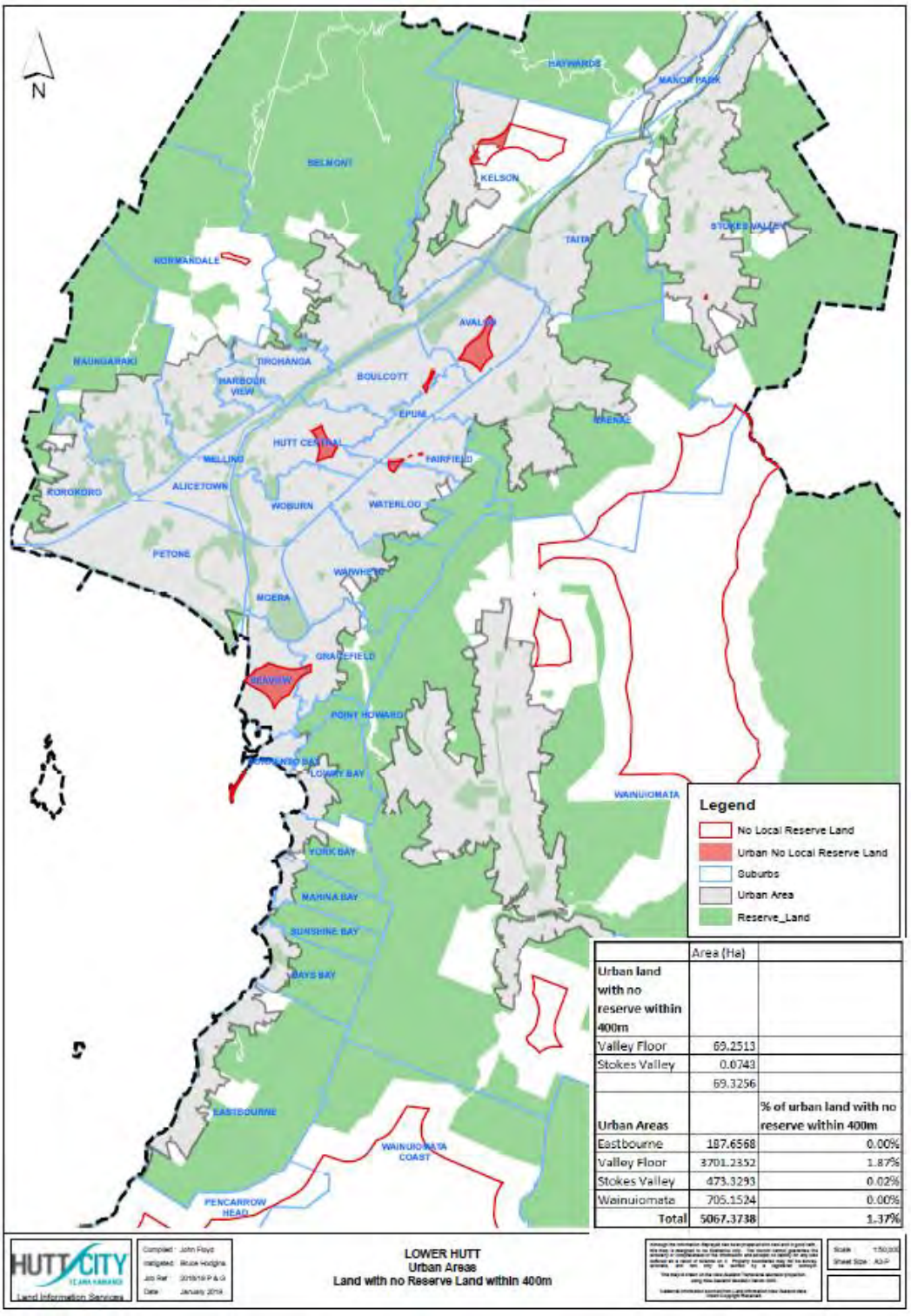
11. Council has identified some gaps within the open space network that would improve biodiversity. These are largely to improve ecological corridors such as the network of reserves on the Eastern Hills and in Wainuiomata. As opportunities arise, such as subdivision, Council will consider purchase or other mechanisms to ensure ecological linkages can be maintained and protected.
12. A review of play spaces undertaken in 2012 (Go Outside and Play) identified a small number of gaps in the distribution of formal playgrounds in the City based on a play space being within 600 metres of residents (direct line). Council has 62 playgrounds in total.
    a. A map of playground accessibility can be seen in appendix 3.

Appendices

Appendix 1


N
Reserve Land Management
KEY
Hutt City Council managed
Department of Conservation managed
Greater Wellington Regional Council managed

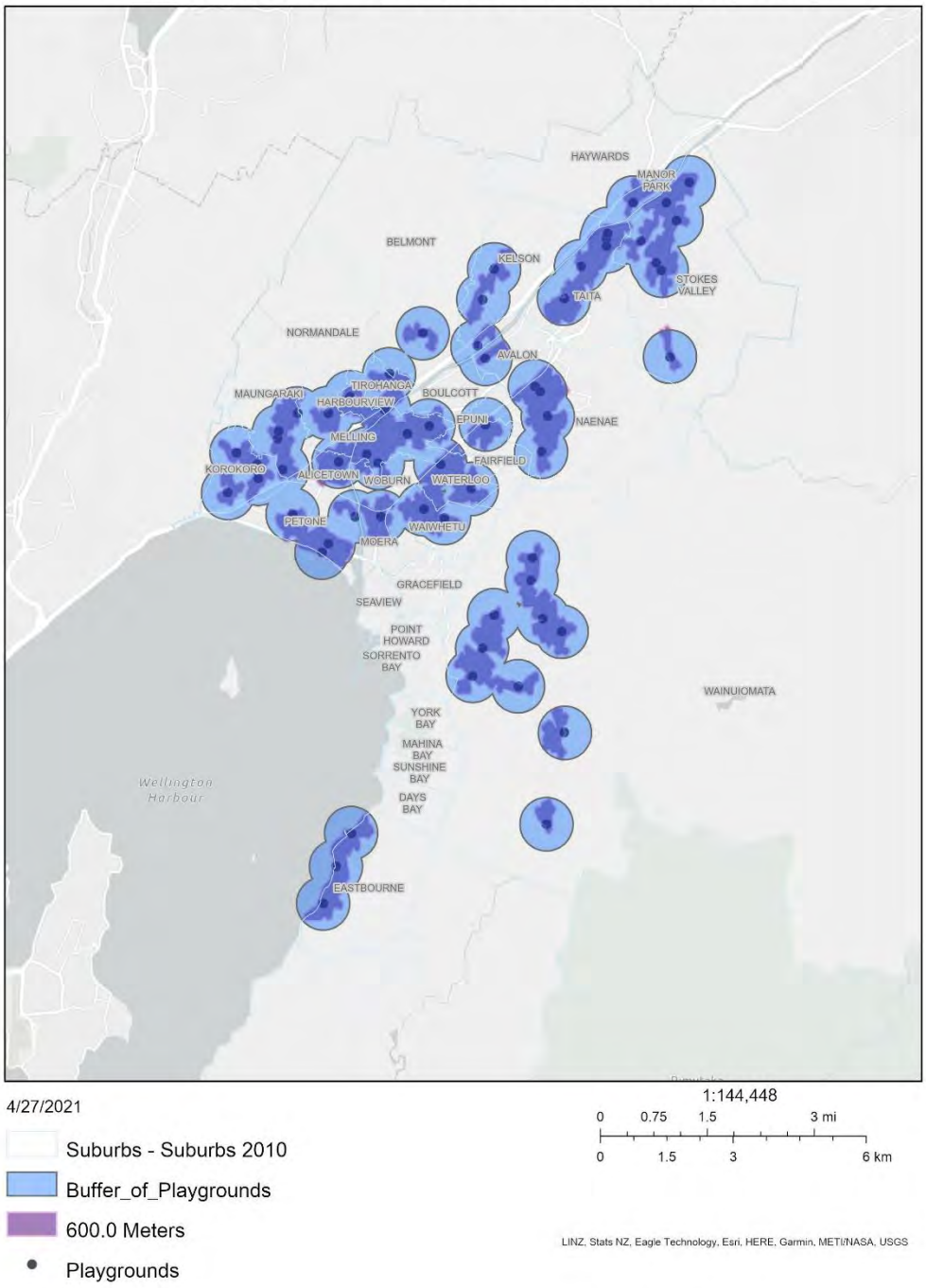
Appendix 2



	Area (Ha)	
Urban land with no reserve within 400m		
Valley Floor	69.2513	
Stokes Valley	0.0743	
	69.3256	
Urban Areas		**% of urban land with no reserve within 400m**
Eastbourne	187.6568	0.00%
Valley Floor	3701.2352	1.87%
Stokes Valley	473.3293	0.02%
Wainuiomata	705.1524	0.00%
Total	**5067.3738**	**1.37%**

Appendix 3

Playgrounds with buffer and walking distance (600m)



4/27/2021

1:144,448

0 0.75 1.5 3 mi

0 1.5 3 6 km

Suburbs - Suburbs 2010

Buffer_of_Playgrounds

600.0 Meters

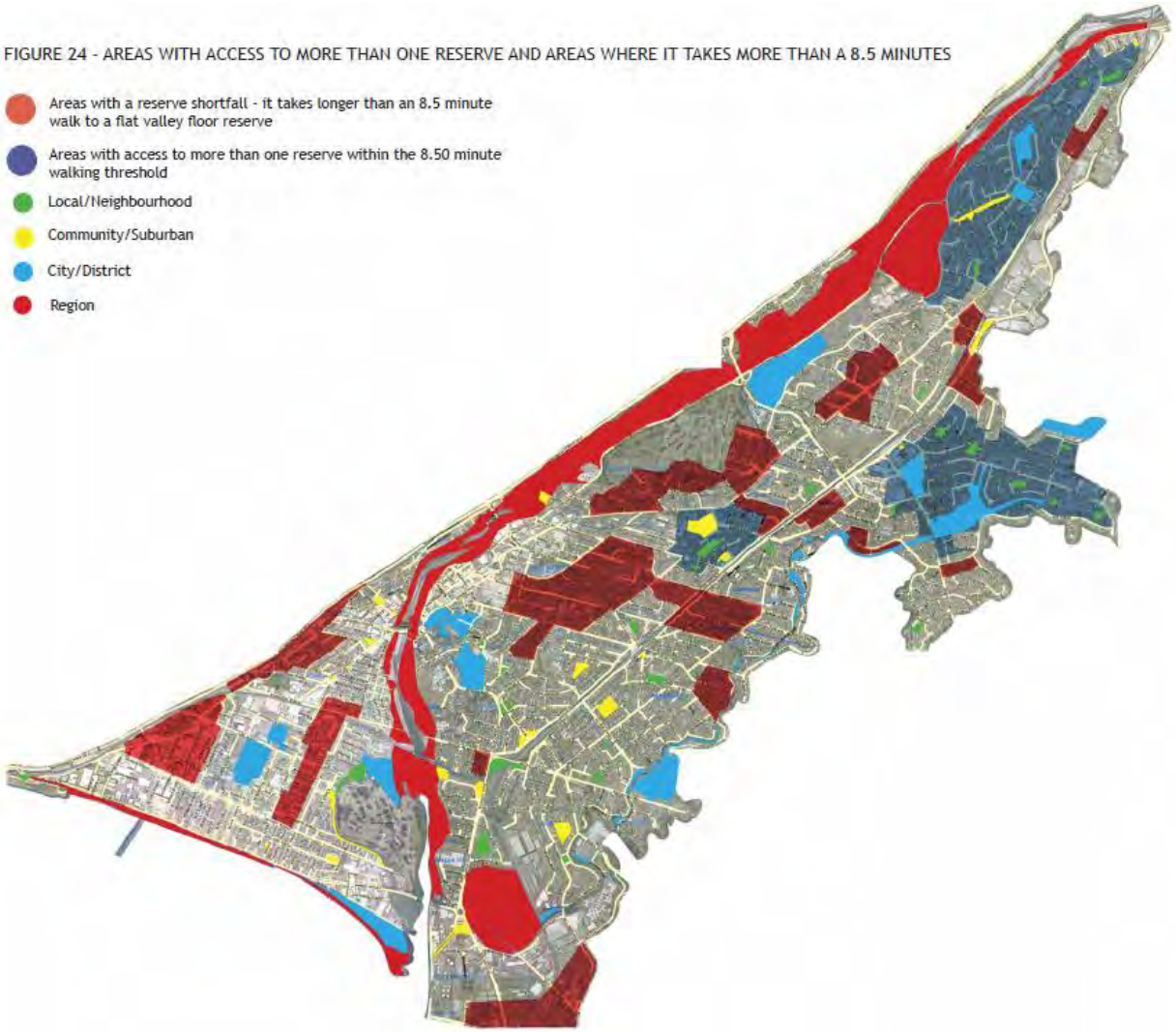
Playgrounds

Appendix 4

Category	Description/Primary Purpose	Alternative Names
Sports and Recreation	Parks (often quite large areas) set aside and developed for organised sport and recreation activities, recreation facilities and buildings, often multiple use.	• Active • Sports
Neighbourhood	Parks developed and used for informal recreation and sporting activities, play and family based activities, and social and community activities.	• Local • Social Recreation • Community
Public Gardens	Parks and gardens developed to a very high horticultural standard with collections of plants and landscaping for relaxation, contemplation, appreciation, education, events, functions and amenity/intrinsic value.	• Botanic Gardens • Horticultural • Premier
Nature	Parks that offer the experience and/or protection of the natural environment, containing native bush, coastal margins, forestry, farm parks, wetlands, riparian areas and water bodies.	• Conservation • Bushland • Forest • Protected • Environmental
Cultural Heritage	Parks that protect the built cultural and historical environment, and/or provide for heritage conservation, education, commemoration, mourning and remembrance.	• Cemeteries • Cultural • Heritage
Outdoor Adventure	Parks developed and used for recreation and sporting activities and associated built facilities that require a large scale, forested, rural or peri-urban environment.	• Regional • Forest • Farm • All Terrain
Civic	Areas of open space often provided within or adjacent to central business districts, and developed to provide a space for social gatherings, meeting places, relaxation and enjoyment	• Plaza • Community Hub • Town Squares • Streetscape
Recreation and Ecological Linkages	Areas of open space that are often linear in nature that provide pedestrian and cycle linkages, wildlife corridors and access to water margins. May provide for environmental protection, and access to waterways.	• Linear • Walkways • Corridor • Green Corridors • Environmental Corridors • Esplanade • Linkage

Appendix 5

FIGURE 24 - AREAS WITH ACCESS TO MORE THAN ONE RESERVE AND AREAS WHERE IT TAKES MORE THAN A 8.5 MINUTES



Some parts of the valley floor have access to more than one neighbourhood reserve within the 8.5 minute walk threshold. In other words, people in these areas live within 400 metres of more than one reserve.

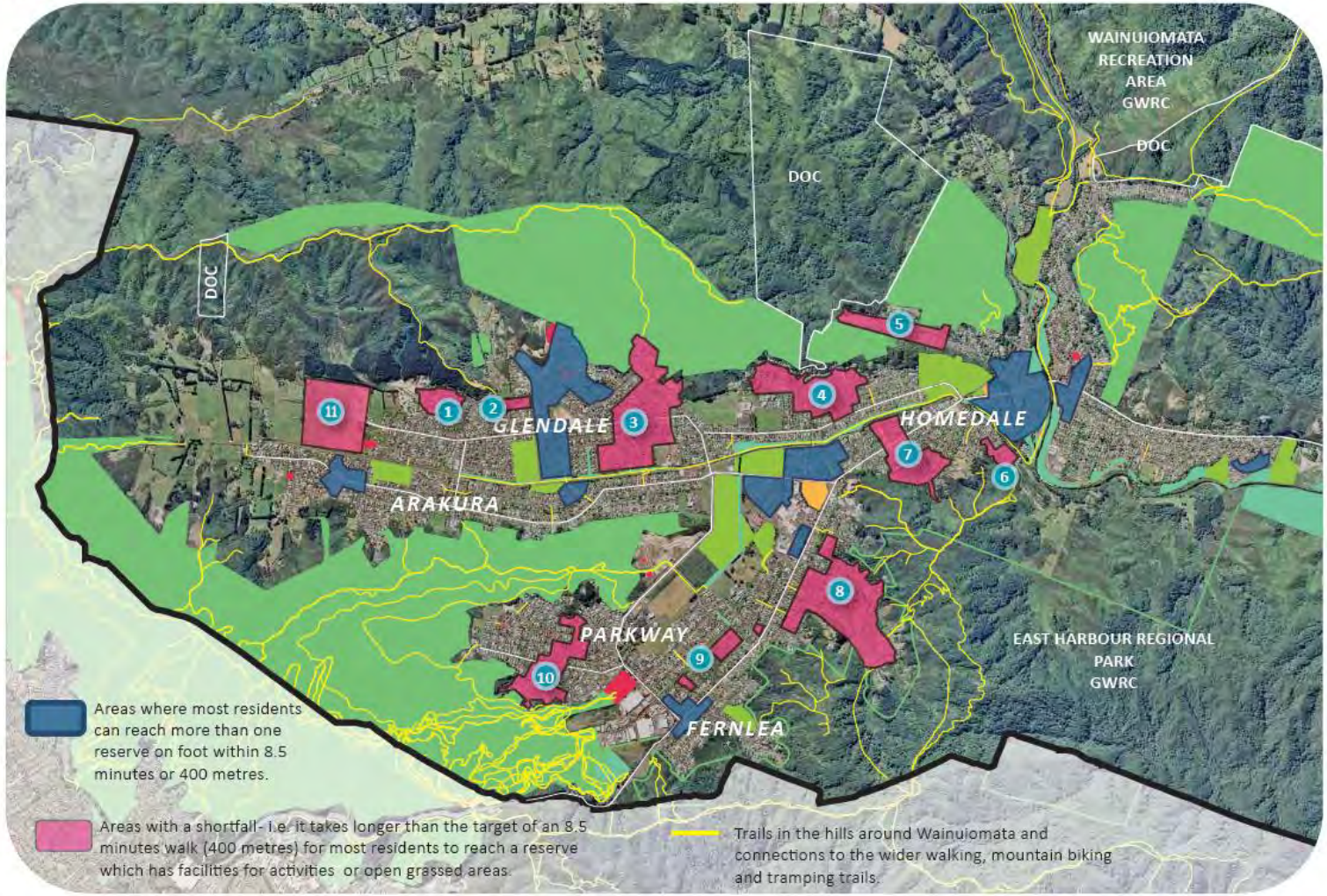
Areas with access to more than one reserve within the 8.5 minute walking threshold are in Taita, Naenae and central Epuni. These areas have social housing and high levels of social deprivation. In New Zealand it is not unusual for such areas to have high levels of reserve provision, in contrast to the United Kingdom, Australia, Canada and the United States (Stevenson, Anna et al, NZ Geographer (2009), 'Neighbourhoods and health: a review of the New Zealand literature', pge 219). The parts of Naenae, Taita and Epuni where people live within 400 metres of more than one reserve have high levels of social housing and social deprivation and were planned developments at a time when the value of public open spaces for recreation and health was recognised.

The map also shows areas on the valley where people are outside the 400 metre threshold (more than 8.50 minutes walk) of a reserve with suitable space for a ball game or a playground. This indicates a shortfall in neighbourhood reserve provision.

Jackson Street and the block immediately to its south are just within 400 metres of the Petone foreshore which means it can be reached in 8.50 minutes from most properties. This area is earmarked for intensification including apartments, and given the relatively exposed foreshore, more sheltered neighbourhood reserves may be warranted.

Appendix 6

Reserve access



Appendix 3.3

Hutt City Residential Capacity Report – Property Economics

Kāpiti Coast District Council · poriruacity · Te Kaunihera o Te Awa Kairangi ki Uta Upper Hutt City Council · Hutt City Te Awa Kairangi · Absolutely Positively Wellington City Council Me Heke Ki Pōneke · Greater Wellington Te Pane Matua Taiao

PROPERTY ECONOMICS

HUTT CITY COMMERCIALLY FEASIBLE RESIDENTIAL CAPACITY ASSESSMENT

Client: Hutt City Council

Project No: 51970

Date: February 2022

W: www.propertyeconomics.co.nz E: phil@propertyeconomics.co.nz P: 09 479 9311 PO: Box 315596, Silverdale 0944

SCHEDULE

Code	Date	Information / Comments	Project Leader
51970.4	February 2022	Report	Tim Heath / Phil Osborne

DISCLAIMER

DISCLAIMER

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Property Economics has taken every care to ensure the correctness and reliability of all the information, forecasts and opinions contained in this report. All data utilised in this report has been obtained by what Property Economics consider to be credible sources, and Property Economics has no reason to doubt its accuracy.

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1. INTRODUCTION

Property Economics has been engaged by Hutt City Council (**HCC**) as part of a wider region residential capacity project team, to undertake an assessment of the commercially feasible residential capacity (supply) of the Lower Hutt City District (Lower Hutt City) within the context of Council's obligations under the National Policy Statement on Urban Development (**NPS UD**).

The purpose of this report is to provide HCC with robust market intelligence to assist in making more informed and economically justified decisions in regard to the design and implementation of a residential policy framework for the District Plan and other long-term planning documents.

This report discusses the work undertaken by both Property Economics and Hutt City Council analysing the existing theoretical residential capacity of Lower Hutt City and developing a capacity model for calculating the level of feasible development within the district. This will inform policy makers on the feasible level of housing supply, and which areas are able to accommodate future residential development based on current zonings, policy settings and market parameters.

This represents an update to the similar work Property Economics undertook in 2019 for the Wellington Region's first HBA.

1.1. GLOSSARY

- Theoretical Yield / Plan Enabled Capacity – The total number of properties that could be developed according to the current Hutt City District Plan provisions within the permitted building envelope, irrelevant of market conditions.
- Comprehensive Development – A development option that assumes the removal of all existing buildings for a comprehensive redevelopment of the entire site with less restrictions.
- Infill Development - A development option that assumes the existing building is retained, and new residential house(s) are developed on balance of the site (i.e. the backyard).
- Standalone House – Single detached dwelling.
- Terraced – Dwellings that are attached horizontally to other dwellings but not vertically. This typology is always built to the ground floor (i.e., does not include homes built above retail stores).
- Apartments – Dwellings that are attached vertically and potentially horizontally. Usually in multi-storey developments of higher density.
- Total Yield- The total number of dwellings developed.

  Net Yield – The total number of dwellings constructed net of any existing dwellings removed. For Infill development, the total yield is equal to the net yield, while for Comprehensive development the net yield is equal to the total yield less the existing dwellings.

2. THEORETICAL CAPACITY

Property Economics have been provided with GIS layers containing the sites within Lower Hutt City that provided for infill, or comprehensive redevelopment. Theoretical residential capacity was calculated utilising current theoretical District Plan policy settings and algorithmic, GIS and 3D modelling. The information contained several different scenarios, based on housing typology and quantum, that were identified as theoretically viable to develop.

Table 1 below outlines the theoretical capacity output by the model provided to Property Economics by HCC by suburb.

TABLE 1 – LOWER HUTT CITY THEORETICAL RESIDENTIAL DEVELOPMENT CAPACITY BY SUBURB

Suburbs	Commercial /Mixed Use	Medium Density Residential	Other Residential	Total
ALICETOWN	37	-	1,145	1,182
AVALON	80	1,110	2,850	4,040
BELMONT	-	-	946	946
BOULCOTT	161	1,361	1,279	2,801
DAYS BAY	-	-	124	124
EASTBOURNE	16	-	775	791
EPUNI	285	2,482	1,303	4,070
FAIRFIELD	36	1,493	1,331	2,860
HARBOUR VIEW	-	-	263	263
HAYWARDS	-	-	113	113
HUTT CENTRAL	15,048	1,016	1,729	17,793
KELSON	-	-	1,506	1,506
KOROKORO	-	-	32	32
LOWRY BAY	-	-	39	39
MAHINA BAY	-	-	4	4
MANOR PARK	-	-	224	224
MAUNGARAKI	10	-	1,465	1,475
MELLING	-	-	330	330
MOERA	87	-	1,114	1,201
NAENAE	516	1,840	8,363	10,719
NORMANDALE	-	-	1,184	1,184
PETONE	13,080	-	2,571	15,651
STOKES VALLEY	209	292	8,721	9,222
TAITA	392	2,570	5,171	8,133
TIROHANGA	-	-	195	195
WAINUIOMATA	1,325	1,403	23,126	25,854
WAIWHETU	134	535	2,461	3,130
WATERLOO	266	938	2,913	4,117
WOBURN	1	188	1,307	1,496
YORK BAY	-	-	19	19
Grand Total	**31,683**	**15,228**	**72,603**	**119,514**

Source: Property Economics, HCC

Table 1 shows there is theoretical capacity within Lower Hutt City for around 119,514 new dwellings. The suburbs of Hutt Central and Wainuiomata have the highest level of theoretical capacity at 17,793 and 25,854 respectively.

It is important to note that Table 1 represents the sum of the maximum attainable yield of any typology on an individual site basis. The theoretical model outputs passed to Property Economics contained several different development scenarios on each site, therefore the theoretical yield represents the scenarios on each site where the development potential is the highest.

This new theoretical capacity number represents a significant increase over the previous report. HCC has indicated that this is the result of major changes within the General Residential Chapter of their District Plan, as well as the introduction of the Medium Density Residential Zone and Suburban Mixed-Use Zone that are both more enabling.

However, the theoretical capacity numbers provided have been adjusted by Property Economics to represent more practical outcomes, despite potentially being plan enabled.

Firstly, the height of standalone and terraced dwellings is limited to three stories, or the maximum height of the zone. Specifically, the 8m height limit in General Residential Zone allows for only realistically two stories. Property Economics considers that this height limitation makes apartment typologies unlikely and have therefore removed apartment options from this zone.

Additionally, a practical minimum site size of 80sqm for a terraced dwelling and 150sqm for standalone has been applied. This practical adjustment primarily comes into effect on commercial sites where there is no minimum site size or maximum coverage rules. In some of the other zones the minimum site size is set by the district plan regulations (e.g., Hill Residential ~ 1,000sqm).

The Subdivision chapter allows for subdivision down to 400sqm except where it can be demonstrated that the proposed development is able to meet the General Residential Development Standards on smaller sites. By request of the Hutt City Council, the density of activity in the general residential zone is defined by other requirements (i.e., yard and site coverage) rather than a set minimum site size

Comprehensive Residential Development (as defined by the District Plan), is a planned integrated development option on sites of at least 1,400sqm, which requires a Restricted Discretionary Consent in the General Residential Zone but allows for site coverages of up to 60%.

Property Economics have therefore run two coverage rules for every General Residential Zoned site. Development options that do not exceed a 40% site coverage are labelled as Permitted, while development options that exceed 40% (limited to 60%) are Restricted Discretionary. This activity status has no influence over the theoretical or feasible numbers but is accounted for in the Realisable Capacity.

In the Petone Commercial Area 1, Petone Commercial Area 2, along Jackson Street and the Central Commercial Zone, Residential is only permitted above ground. This means that both Standalone and Terraced typologies will be required to apply for a Discretionary Consent, something that the Council considers is unlikely to be granted in most cases. For this reason, Property Economics have removed these options in both these zones.

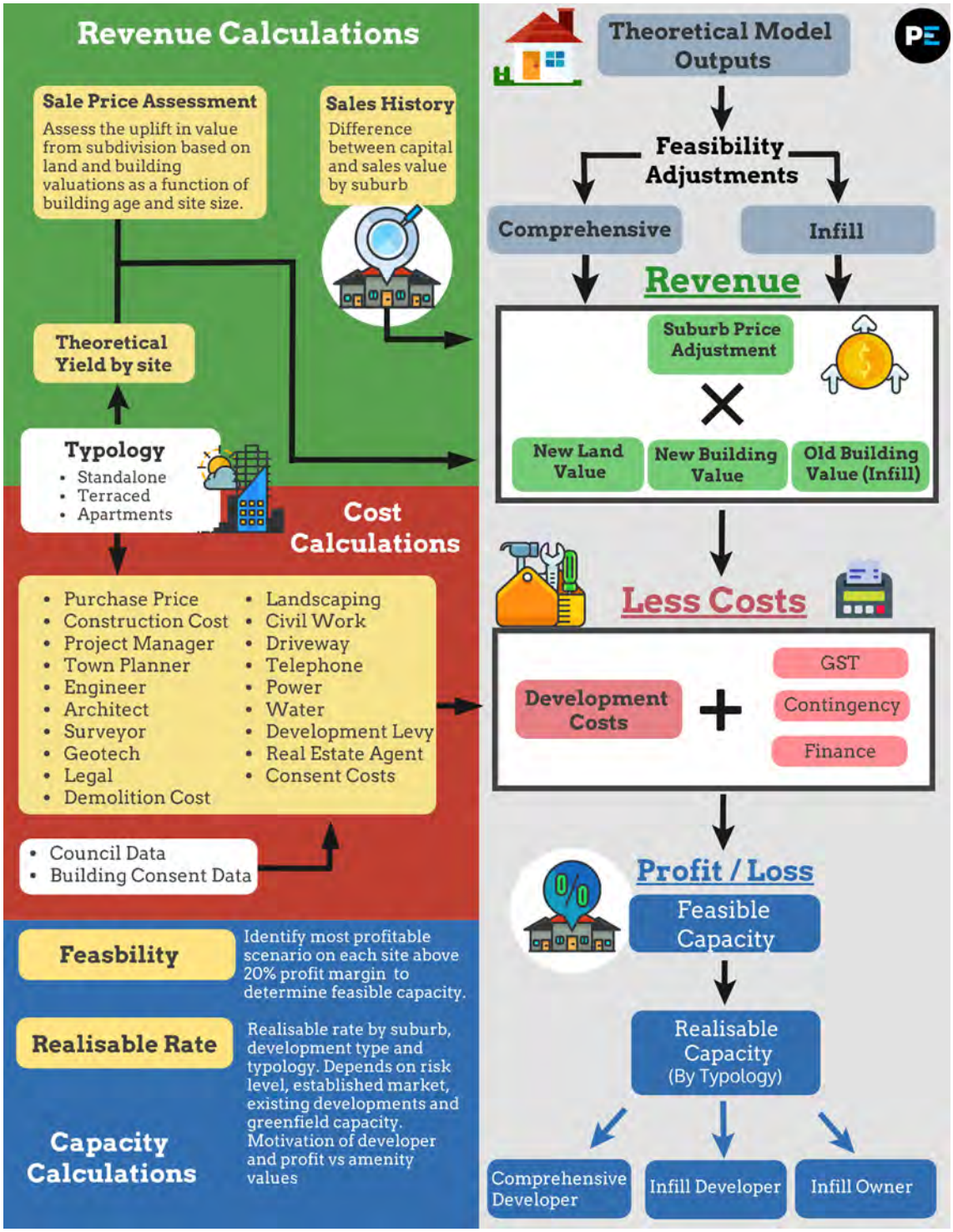
Apartments on the other hand can be built with commercial / retail space on the ground floor, and residential apartments on the floors above as a permitted activity. However, competing activities (i.e., demand for office space) in commercial areas means that not all feasible residential activity can be reasonably expected to be developed. As with the RD consents in General Residential Zone, this is addressed in the Realisable Capacity section.

Finally, infill development options have been removed from the Commercial Zones. The reason for this is that in most instances the "vacant" space that has been identified for infill, is a parking lot or some other space that is utilised. While the loss of parking could be offset by the construction of multi-storey parking lots, the cost of this is not accounted for in the Property Economics model. Therefore, while occasionally appropriate, Property Economics considers the inclusion of infill in the commercial zone will result in potential un-realistic outcomes.

3. FEASIBLE CAPACITY MODELLING

A high-level overview of the model utilised by Property Economics in determining the feasible residential capacity for Lower Hutt City is outlined in the flow chart in Figure 1 below, with detailed descriptions of each stage of the process given following.

FIGURE 1: PROPERTY ECONOMICS RESIDENTIAL FEASIBILITY MODEL OVERVIEW



Using the ratings database provided by Hutt City Council, the land value per sqm and improvement value per sqm is calculated. This is then summarised by suburb, size and typology to give the average per sqm value for various types of dwellings.

By splitting the valuation into land and improvement value, it accounts for variations of both sizes e.g., a large dwelling on a small piece of land compared to the same size dwelling on a larger piece of land.

Values are not the same across each suburb (due to differing structures and quality), and thus it is required to give the per sqm value for each suburb individually. Also, the per sqm rate for land and improvement value are shown not to be consistent across all sizes. For example, a larger dwelling has on average a lower per sqm improvement value than a smaller one. This inverse relationship between size and per sqm value is the same for both land value per sqm and building value per sqm.

It was also found that in modern residential developments, terraced dwellings do not have a statistically distinct improvement value to that of standalone dwellings. That is, building a 100sqm terraced home, is unlikely to sell for more than the same quality standalone home on the same sized land area. Although they typically cost slightly more on average due to the noise mitigation, this does not translate into additional value to the consumer over the standalone typologies. Therefore, the resulting build values are assumed to be the same between terraced and standalone for Lower Hutt City.

Rather, the value of terraced housing is inherent in the greater land utilisation and resulting higher land value per square metre.

TABLE 2: EXAMPLE OF HOW BUILDING VALUE AND LAND VALUE CAN VARY BETWEEN STANDALONE AND TERRACED DEVELOPMENT OPTIONS

Development Option on 500sqm site	Building Value per dwelling	Site Size per dwelling	Land Value per dwelling	Sale Price per dwelling	Land Value Per SQM	Total Land Value
One 100sqm Standalone	$ 400,000	500	$ 500,000	$900,000	$ 1,000	$ 500,000
Two 100sqm Standalone	$ 400,000	250	$ 400,000	$800,000	$ 1,600	$ 800,000
Three 100sqm Terraces	$ 400,000	167	$ 360,000	$760,000	$ 2,160	$ 1,080,000

Source: Property Economics,

This is demonstrated in Table 2 below which shows how the building value and land value varies between standalone and terraced development options. Note is a generic example, (i.e. does not represent a specific site in Hutt City) but is based on typical inputs into the Property Economics model and land value to site size ratios.

As this table shows, the value of each individual 100sqm building does not change. Rather the value in building more terraces is inherit in the increase in land value from $1,600 per sqm to $2,160 per sqm, which is the result of being able to build more homes on the same site. If building terraces did not result in a greater yield (i.e., only two terraces or two standalone

options) then the Feasible Capacity Model results would likely show the standalone to be the preferred option.

Table 3 below show the build value per sqm utilised in the commercially feasible capacity modelling for varying building sizes for standalone and terraced typologies.

TABLE 3 – LOWER HUTT CITY STANDALONE BUILD VALUE / SQM BY SUBURB

Standalone	50	75	100	125	150	175	200	225	250	280
ALICETOWN	$ 4,247	$ 4,013	$ 3,835	$ 3,685	$ 3,504	$ 3,393	$ 3,229	$ 3,111	$ 3,065	$ 2,953
AVALON	$ 4,302	$ 4,065	$ 3,885	$ 3,733	$ 3,549	$ 3,437	$ 3,271	$ 3,151	$ 3,105	$ 2,991
BELMONT	$ 4,012	$ 3,790	$ 3,622	$ 3,481	$ 3,309	$ 3,205	$ 3,050	$ 2,938	$ 2,895	$ 2,789
BOULCOTT	$ 4,484	$ 4,237	$ 4,049	$ 3,891	$ 3,699	$ 3,582	$ 3,409	$ 3,284	$ 3,236	$ 3,118
DAYS BAY	$ 4,682	$ 4,424	$ 4,228	$ 4,063	$ 3,863	$ 3,740	$ 3,560	$ 3,429	$ 3,379	$ 3,256
EASTBOURNE	$ 5,052	$ 4,773	$ 4,561	$ 4,383	$ 4,167	$ 4,035	$ 3,840	$ 3,699	$ 3,645	$ 3,512
EPUNI	$ 4,385	$ 4,143	$ 3,960	$ 3,805	$ 3,618	$ 3,503	$ 3,334	$ 3,212	$ 3,165	$ 3,049
FAIRFIELD	$ 4,279	$ 4,043	$ 3,864	$ 3,713	$ 3,530	$ 3,418	$ 3,253	$ 3,134	$ 3,088	$ 2,975
HARBOUR VIEW	$ 3,946	$ 3,728	$ 3,563	$ 3,424	$ 3,255	$ 3,152	$ 3,000	$ 2,890	$ 2,847	$ 2,743
HAYWARDS	$ 3,789	$ 3,580	$ 3,422	$ 3,288	$ 3,126	$ 3,027	$ 2,881	$ 2,775	$ 2,735	$ 2,635
HUTT CENTRAL	$ 4,645	$ 4,389	$ 4,194	$ 4,031	$ 3,832	$ 3,710	$ 3,531	$ 3,402	$ 3,352	$ 3,230
KELSON	$ 3,883	$ 3,669	$ 3,506	$ 3,370	$ 3,203	$ 3,102	$ 2,952	$ 2,844	$ 2,802	$ 2,700
KOROKORO	$ 3,913	$ 3,697	$ 3,533	$ 3,395	$ 3,228	$ 3,126	$ 2,975	$ 2,866	$ 2,824	$ 2,721
LOWRY BAY	$ 4,303	$ 4,065	$ 3,885	$ 3,733	$ 3,549	$ 3,437	$ 3,271	$ 3,151	$ 3,105	$ 2,992
MAHINA BAY	$ 3,913	$ 3,697	$ 3,533	$ 3,395	$ 3,228	$ 3,126	$ 2,975	$ 2,866	$ 2,824	$ 2,721
MANOR PARK	$ 3,844	$ 3,632	$ 3,471	$ 3,336	$ 3,171	$ 3,071	$ 2,922	$ 2,815	$ 2,774	$ 2,673
MAUNGARAKI	$ 3,996	$ 3,776	$ 3,608	$ 3,468	$ 3,297	$ 3,192	$ 3,038	$ 2,927	$ 2,884	$ 2,779
MELLING	$ 4,095	$ 3,869	$ 3,698	$ 3,553	$ 3,378	$ 3,271	$ 3,113	$ 2,999	$ 2,955	$ 2,847
MOERA	$ 4,048	$ 3,825	$ 3,655	$ 3,513	$ 3,339	$ 3,234	$ 3,077	$ 2,965	$ 2,921	$ 2,815
NAENAE	$ 4,055	$ 3,831	$ 3,661	$ 3,518	$ 3,345	$ 3,239	$ 3,082	$ 2,969	$ 2,926	$ 2,819
NORMANDALE	$ 3,925	$ 3,708	$ 3,544	$ 3,406	$ 3,238	$ 3,135	$ 2,984	$ 2,874	$ 2,832	$ 2,729
PETONE	$ 4,518	$ 4,268	$ 4,079	$ 3,920	$ 3,727	$ 3,609	$ 3,435	$ 3,309	$ 3,260	$ 3,141
POINT HOWARD	$ 3,913	$ 3,697	$ 3,533	$ 3,395	$ 3,228	$ 3,126	$ 2,975	$ 2,866	$ 2,824	$ 2,721
STOKES VALLEY	$ 3,858	$ 3,645	$ 3,484	$ 3,348	$ 3,183	$ 3,082	$ 2,933	$ 2,825	$ 2,784	$ 2,682
TAITA	$ 3,974	$ 3,755	$ 3,588	$ 3,448	$ 3,278	$ 3,174	$ 3,021	$ 2,910	$ 2,868	$ 2,763
TIROHANGA	$ 3,921	$ 3,705	$ 3,541	$ 3,403	$ 3,235	$ 3,132	$ 2,981	$ 2,872	$ 2,830	$ 2,727
WAINUIOMATA	$ 3,785	$ 3,577	$ 3,418	$ 3,285	$ 3,123	$ 3,024	$ 2,878	$ 2,772	$ 2,732	$ 2,632
WAIWHETU	$ 4,188	$ 3,957	$ 3,781	$ 3,634	$ 3,455	$ 3,345	$ 3,184	$ 3,067	$ 3,022	$ 2,912
WATERLOO	$ 4,299	$ 4,062	$ 3,882	$ 3,731	$ 3,547	$ 3,434	$ 3,269	$ 3,149	$ 3,103	$ 2,989
WOBURN	$ 4,771	$ 4,508	$ 4,308	$ 4,140	$ 3,936	$ 3,811	$ 3,627	$ 3,494	$ 3,443	$ 3,317
YORK BAY	$ 3,913	$ 3,697	$ 3,533	$ 3,395	$ 3,228	$ 3,126	$ 2,975	$ 2,866	$ 2,824	$ 2,721

Source: Property Economics,

Due to limited availability of ratings data for apartment typologies, nominal values were used for a range of apartment sizes, with capital value determined by interpolating between these points. Additionally, the relative value of site-specific land value, per square metre, has been utilised to differentiate between sites in good locations (i.e., Hutt Central which typically has higher price points) against those further out in the Suburbs. The district wide average sale price for apartments is shown in Table 4.

TABLE 4 – LOWER HUTT CITY NOMINAL APARTMENT VALUES

Apartment	25	50	75	100	125	150
Average	$ 407,411	$ 502,882	$ 636,189	$ 828,673	$ 981,426	$ 1,123,488

Source: Property Economics

It should be mentioned that these sale prices do not represent the sale price of the apartments that are deemed feasible. As expected, it is primarily only Petone and Hutt Central which have feasible apartments and this is due the higher expected sale price, upwards of 25% higher than the values shown in Table 4

Land Value per SQM

The land value per sqm utilised in the commercially feasible capacity modelling for varying land sizes. This was utilised for both standalone and terraced typologies, however as described above apartments were modelled using nominal capital values.

A limitation identified during the modelling process was that by applying a percentage increase on the site-specific land value through the process of subdivision, meant that sites with a proportionally high underlying land value resulted in an impractical subdivided land value on a per sqm basis. This was identified as a specific problem for sites with underlying commercial land values.

As a solution, the maximum residentially zoned land value per sqm identified within the ratings database was used as a maximum limit for the land value per sqm after subdivision. This removed the impact of sites with underlying commercial land values resulting in impractically high profitability, and thus feasible yield.

Sales vs Capital Value (CV)

A statistically significant sample dataset of sales in Lower Hutt City over 2021 was used to find the difference between the average sales price and the most recent valuation. This is to ensure the capacity modelling utilises the most up to date values data critical to the determination of current day feasible capacity.

Previously, this was done at a suburb level with an average Capital Value to Sales Value ratio dictating the increases to both land and improvement value. In this model update however, the increase in value has been calculated separately for both land and building at a district level. This was done by regressing the sale price of properties against both their valuation land and improvement value. Utilising this methodology, it was found that on average, the sale price is a product of an 93% increase in land value and a 20% increase in improvement value.

Following this, adjustments have been made to suburbs which demonstrated a statistically significant difference to the rest of district. Eastbourne had an average land value increase that was roughly 40 percentage points lower than the rest of the district while some of the more central suburbs required adjustments of around 10%.

Construction Costs

Suburb based differentials between constructions costs for new dwellings were found by analysing the value of recent building consents granted within Lower Hutt City. The historical building consent data shows that the average value of building consents varies across suburb within Lower Hutt City, indicating the variety of product quality that is built.

Because of this, a table of average building consent per sqm by suburb was extracted from the building consent data in order to represent the average construction costs in a suburb. This is then used in the model as the construction costs of building a new dwelling. Note, this is only used for standalone and terraced dwellings, as apartments have been modelled using nominal capital values.

Table 5 shows the Standalone Dwelling build cost by Suburb. Terraced dwelling construction costs are simply calculated at 8% higher than the standalone construction cost across the board.

TABLE 5 – LOWER HUTT CITY STANDALONE BUILD COST BY SUBURB

Standalone	50	75	100	125	150	175	200	225	250	280
ALICETOWN	$ 4,330	$ 3,494	$ 3,039	$ 2,745	$ 2,539	$ 2,499	$ 2,363	$ 2,254	$ 2,163	$ 2,073
AVALON	$ 4,385	$ 3,539	$ 3,078	$ 2,781	$ 2,572	$ 2,531	$ 2,393	$ 2,283	$ 2,191	$ 2,100
BELMONT	$ 4,089	$ 3,300	$ 2,870	$ 2,593	$ 2,398	$ 2,360	$ 2,232	$ 2,129	$ 2,043	$ 1,958
BOULCOTT	$ 4,571	$ 3,689	$ 3,208	$ 2,898	$ 2,681	$ 2,638	$ 2,494	$ 2,379	$ 2,283	$ 2,189
DAYS BAY	$ 4,773	$ 3,852	$ 3,350	$ 3,027	$ 2,799	$ 2,755	$ 2,605	$ 2,485	$ 2,384	$ 2,286
EASTBOURNE	$ 5,149	$ 4,156	$ 3,614	$ 3,265	$ 3,020	$ 2,972	$ 2,810	$ 2,680	$ 2,572	$ 2,466
EPUNI	$ 4,470	$ 3,608	$ 3,137	$ 2,835	$ 2,622	$ 2,580	$ 2,439	$ 2,327	$ 2,233	$ 2,141
FAIRFIELD	$ 4,362	$ 3,520	$ 3,061	$ 2,766	$ 2,558	$ 2,518	$ 2,380	$ 2,271	$ 2,179	$ 2,089
HARBOUR VIEW	$ 4,022	$ 3,246	$ 2,823	$ 2,550	$ 2,359	$ 2,321	$ 2,195	$ 2,094	$ 2,009	$ 1,926
HAYWARDS	$ 3,863	$ 3,117	$ 2,711	$ 2,449	$ 2,265	$ 2,229	$ 2,108	$ 2,011	$ 1,930	$ 1,850
HUTT CENTRAL	$ 4,735	$ 3,821	$ 3,323	$ 3,002	$ 2,777	$ 2,733	$ 2,584	$ 2,465	$ 2,365	$ 2,267
KELSON	$ 3,959	$ 3,195	$ 2,778	$ 2,510	$ 2,322	$ 2,285	$ 2,160	$ 2,061	$ 1,977	$ 1,896
KOROKORO	$ 3,989	$ 3,219	$ 2,800	$ 2,529	$ 2,339	$ 2,302	$ 2,177	$ 2,076	$ 1,993	$ 1,910
LOWRY BAY	$ 4,386	$ 3,540	$ 3,078	$ 2,781	$ 2,572	$ 2,531	$ 2,393	$ 2,283	$ 2,191	$ 2,100
MAHINA BAY	$ 3,989	$ 3,219	$ 2,800	$ 2,529	$ 2,339	$ 2,302	$ 2,177	$ 2,076	$ 1,993	$ 1,910
MANOR PARK	$ 3,919	$ 3,162	$ 2,750	$ 2,485	$ 2,298	$ 2,262	$ 2,138	$ 2,040	$ 1,958	$ 1,877
MAUNGARAKI	$ 4,074	$ 3,288	$ 2,859	$ 2,583	$ 2,389	$ 2,351	$ 2,223	$ 2,120	$ 2,035	$ 1,951
MELLING	$ 4,174	$ 3,369	$ 2,930	$ 2,647	$ 2,448	$ 2,409	$ 2,278	$ 2,173	$ 2,085	$ 1,999
MOERA	$ 4,127	$ 3,330	$ 2,896	$ 2,617	$ 2,420	$ 2,382	$ 2,252	$ 2,148	$ 2,061	$ 1,976
NAENAE	$ 4,133	$ 3,336	$ 2,901	$ 2,621	$ 2,424	$ 2,386	$ 2,255	$ 2,151	$ 2,065	$ 1,979
NORMANDALE	$ 4,001	$ 3,229	$ 2,808	$ 2,537	$ 2,346	$ 2,309	$ 2,183	$ 2,083	$ 1,999	$ 1,916
PETONE	$ 4,605	$ 3,716	$ 3,232	$ 2,920	$ 2,701	$ 2,658	$ 2,513	$ 2,397	$ 2,301	$ 2,205
POINT HOWARD	$ 3,989	$ 3,219	$ 2,800	$ 2,529	$ 2,339	$ 2,302	$ 2,177	$ 2,076	$ 1,993	$ 1,910
STOKES VALLEY	$ 3,933	$ 3,174	$ 2,760	$ 2,494	$ 2,306	$ 2,270	$ 2,146	$ 2,047	$ 1,965	$ 1,883
TAITA	$ 4,051	$ 3,269	$ 2,843	$ 2,569	$ 2,376	$ 2,338	$ 2,211	$ 2,109	$ 2,024	$ 1,940
TIROHANGA	$ 3,997	$ 3,226	$ 2,805	$ 2,535	$ 2,344	$ 2,307	$ 2,181	$ 2,081	$ 1,997	$ 1,914
WAINUIOMATA	$ 3,859	$ 3,114	$ 2,708	$ 2,447	$ 2,263	$ 2,227	$ 2,106	$ 2,009	$ 1,928	$ 1,848
WAIWHETU	$ 4,269	$ 3,445	$ 2,996	$ 2,707	$ 2,504	$ 2,464	$ 2,330	$ 2,222	$ 2,133	$ 2,044
WATERLOO	$ 4,383	$ 3,537	$ 3,076	$ 2,779	$ 2,570	$ 2,530	$ 2,392	$ 2,281	$ 2,189	$ 2,099
WOBURN	$ 4,863	$ 3,925	$ 3,413	$ 3,084	$ 2,852	$ 2,807	$ 2,654	$ 2,531	$ 2,429	$ 2,329
YORK BAY	$ 3,989	$ 3,219	$ 2,800	$ 2,529	$ 2,339	$ 2,302	$ 2,177	$ 2,076	$ 1,993	$ 1,910

Source: Property Economics

Table 6 on the other hand shows the Apartment Construction Costs which were not differentiated by suburb.

TABLE 6 – LOWER HUTT CITY APARTMENT BUILD COST BY SUBURB

Apartment	50	75	100	125	150
Average	$ 5,864	$ 4,960	$ 5,000	$ 4,647	$ 4,518

Source: Property Economics

Other Development Costs

As well as construction costs, a number of other costs have been incorporated into the feasibility model on a per dwelling basis. Some of the key costs are outlined below in Table 7. Other costs are identified in Figure 1 but also include commercial interest at 8% p.a. and a 10% contingency on total costs (risk).

Although parking requirements have been removed from the District Plan in accordance with changes to the NPS-UD, all developments are anticipated to provide for some sort of driveway / accessway. Therefore, the costs shown in Table 7 are applied to every site according to its development option.

TABLE 7 – LOWER HUTT CITY PER DWELLING DEVELOPMENT COSTS

COMPREHENSIVE COSTS	Standalone	Terraced	Apartment
Demo Cost (per sqm)	$ 100	$ 100	$ 100
Landscaping	$ 3,125	$ 3,750	$ 750
Civil Work	$ 20,000	$ 15,000	$ 5,000
Driveway	$ 20,000	$ 6,600	$ 3,300
Telephone	$ 4,500	$ 2,500	$ 2,000
Power	$ 6,000	$ 6,000	$ 2,250
Water and Wastewater	$ 16,500	$ 7,500	$ 7,500

INFILL COSTS	Standalone	Terraced	Apartment
Demo Cost (per sqm)	$ -	$ -	$ -
Landscaping	$ 3,125	$ 3,750	$ 750
Civil Work	$ 20,000	$ 15,000	$ 5,000
Driveway	$ 20,000	$ 6,600	$ 3,300
Telephone	$ 4,500	$ 2,500	$ 2,000
Power	$ 6,000	$ 6,000	$ 2,250
Water and Wastewater	$ 16,500	$ 7,500	$ 7,500

Source: Property Economics

4. FEASIBILITY MODELLING OUTPUTS

4.1. FEASIBLE CAPACITY OUTPUTS

Property Economics has assessed the variables outlined above in the Lower Hutt City market and run feasible capacity models across the range of locations, land values, improvement values, and land value changes. A key component of the market's willingness to develop infill is the relationship between a site's land value, fixed subdivision costs and the identifiable 'uptake' in value (sqm) through subdivision.

Table 8 below outlines a summary of the number of potential sections on sites where the ratios meet a profit level suitable to meet market expectations (20% for the purpose of this analysis).

TABLE 8 – LOWER HUTT CITY FEASIBLE RESIDENTIAL CAPACITY BY SUBURB – OWNER AND DEVELOPER

Feasible Capacity						
Suburbs	Theoretical Capacity	Feasible Apartment	Feasible Standalone	Feasible Terraced	Total Feasible Capacity	Feasibility Rate
ALICETOWN	1182	-	54	76	130	11%
AVALON	4040	-	803	340	1,143	28%
BELMONT	946	-	207	65	272	29%
BOULCOTT	2801	-	358	349	707	25%
DAYS BAY	124	-	30	4	34	27%
EASTBOURNE	791	-	214	50	264	33%
EPUNI	4070	-	373	645	1,018	25%
FAIRFIELD	2860	-	406	316	722	25%
HARBOUR VIEW	263	-	3	28	31	12%
HAYWARDS	113	-	24	19	43	38%
HUTT CENTRAL	17777	7,251	838	245	8,334	47%
KELSON	1506	-	6	246	252	17%
KOROKORO	32	-	10	6	16	50%
LOWRY BAY	39	-	6	2	8	21%
MAHINA BAY	4	-	-	4	4	100%
MANOR PARK	224	-	23	12	35	16%
MAUNGARAKI	1475	-	121	111	232	16%
MELLING	330	-	21	29	50	15%
MOERA	1201	-	67	111	178	15%
NAENAE	10719	-	1,050	1,493	2,543	24%
NORMANDALE	1184	-	311	152	463	39%
PETONE	15593	8,018	268	1,331	9,617	62%
STOKES VALLEY	9222	-	1,146	1,147	2,293	25%
TAITA	8133	-	764	1,362	2,126	26%
TIROHANGA	195	-	13	12	25	13%
WAINUIOMATA	25850	-	2,608	2,005	4,613	18%
WAIWHETU	3130	-	369	716	1,085	35%
WATERLOO	4117	-	687	461	1,148	28%
WOBURN	1496	-	670	112	782	52%
YORK BAY	19	-	4	2	6	32%
Total	119,436	15,269	11,454	11,451	38,174	32%

Source: Property Economics

Table 8 represents the subdivision undertaken by either an owner occupier or a developer, with the capacity representing the most profitable. This is an important difference as motivations and capital outlay are often different. These figures have removed all 'double ups' i.e., where multiple instances were tested on a specific site and represent the most profitable scenario for that site.

If developments were to be undertaken by either a developer or owner occupier, there is then potential for 38,174 additional units within the Lower Hutt City market. As all development options have been considered in Table 8, this represents the total feasible capacity in the market. This level of feasible capacity represents a 32% feasibility rate on the theoretical capacity.

Table 9 summarises the Feasible Capacity by the District Plan zone. This shows that 43% of the feasible capacity is located in the Commercial and Mixed-Use Zones. The lower feasibility rate of the Medium Density Residential Zones is likely due to the area being already built up, so infill development (which is typically more profitable) is less practical.

TABLE 9: LOWER HUTT CITY FEASIBLE RESIDENTIAL DEVELOPMENT CAPACITY BY DP ZONE

Feasible Capacity (Max Profit)	Theoretical	Apartment	Standalone	Terraced	Total	% of Theoretical
Commercial/Mixed Use	31,605	15,269	279	713	16,261	51%
Medium Density Residential	15,228		1,008	2,078	3,086	20%
Residential	72,603		10,167	8,660	18,827	26%
Total	**119,436**	**15,269**	**11,454**	**11,451**	**38,174**	**32%**

Source: Property Economics

4.2. REALISABLE CAPACITY OUTPUTS

On top of the feasible capacity modelling, practical considerations must be taken into account as to what is likely to be developed in the real world. The realisation rates essentially provide for 'development chance' given the propensity for development variances.

These considerations are based on:

- Dwelling typology
- Development option
- Greenfield competition

The identification of these variables not only provides for sensitivities but also addresses the relativity between typologies. While all three typologies may be feasible the development model identifies the site scenario with the highest profit margin. However, practically while the model assesses the standard 20% profit margin, there is greater risk in some typologies. The assessment below endeavours to consider these risks, and motivation, differentials.

The capacity for greenfield development within Lower Hutt City has been provided to Property Economics, and this has been cross referenced against future residential demand to give an indication of the proportion of demand that can be satisfied by greenfield development. Forecast demand for residential product has been based on Sense Partners 50th percentile dwelling projection.

Table 10 outlines greenfield capacity and future residential demand:

TABLE 10 – LOWER HUTT CITY GREENFIELD DEVELOPMENT CAPACITY

	Greenfield Capacity	30 - Year Demand	Including Buffer	Greenfield % of Demand	Required Brownfield Capacity
Lower Hutt City	903	21,190	24,773	3.6%	23,870

Source: Property Economics, Sense Partners

Over the 30-year forecast period from 2021 – 2051, Lower Hutt City is forecast to require an additional 21,190 dwellings. Including the NPS directed competitiveness margin, Lower Hutt City would require capacity for an additional 24,773. Greenfield modelling provided by HCC has indicated that the district has capacity for 903 feasible greenfield dwellings, making up 3.6% of 30-year demand (including buffer). This suggests that there is likely to be significant residential demand that will encourage brownfield redevelopment.

On top of greenfield consideration, the relative risk of each development type must be considered in quantifying what will practically be developed by the market. The risk is not homogenous across typology or development type, and thus a matrix of 'risk factors' have been applied across each combination of typology and development type.

Risk has been accounted for developments undertaking by developers by increasing the required profit level for a development to be classified as 'realisable', on top of being feasible.

Table 11 below shows the profit levels required for each combination of typology and development option to be considered realisable by the model.

TABLE 11 – DEVELOPER REALISABLE PROFIT RATES

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

Source: Property Economics

This reflects the market practicality that developments taken on by a developer have relatively lower risk if they are an infill development, rather than a comprehensive development. It also shows the increasing risk of development as the typology increases in scale from standalone dwellings, through to terraced product, and finally apartments.

For an owner occupier the model considers the profit level of the development relative to the capital value of the existing dwelling(s). This is because motivations for an owner to subdivide their property are inherently linked with the relative profit, they can achieve against the value of their own home e.g., a $100,000 profit on a $1,000,000 site will be less likely to be developed by the owner, compared to a $100,000 profit on a $500,000 site, assuming similar fixed costs.

Therefore, as a methodology for this, the model considers that the lowest quartile of feasible infill developments in terms of the relative profit / CV ratio will not be realised by the market.

For the activities in the General Residential Zone that incur a Restricted Discretionary Consent, the realisable profit margin has been increased by 20% to account for the increased risk.

Finally, for the Commercial Zone, the Realisable Capacity has been limited to 20% of the Feasible Capacity in the Commercial Zone. This 20% estimate is based on the average proportion of commercial capacity that is used for Residential in similar areas.

Taking these market practicalities into consideration, Table 12 shows the realisable capacity for the Residential Zones within Lower Hutt City:

TABLE 12 – LOWER HUTT CITY REALISABLE RESIDENTIAL DEVELOPMENT CAPACITY BY SUBURB

Realisable Capacity						
Suburbs	Theoretical Capacity	Realisable Apartment	Realisable Standal	Realisable Terraced	Total Realisable Capacity	Realisation Rate
ALICETOWN	1182	-	34	32	66	6%
AVALON	4040	-	553	130	683	17%
BELMONT	946	-	177	55	232	25%
BOULCOTT	2801	-	286	214	500	18%
DAYS BAY	124	-	13	2	15	12%
EASTBOURNE	791	-	114	28	142	18%
EPUNI	4070	-	336	300	636	16%
FAIRFIELD	2860	-	333	190	523	18%
HARBOUR VIEW	263	-	5	8	13	5%
HAYWARDS	113	-	22	-	22	19%
HUTT CENTRAL	17777	1,450	539	195	2,185	12%
KELSON	1506	-	88	44	132	9%
KOROKORO	32	-	5	6	11	34%
LOWRY BAY	39	-	6	2	8	21%
MAHINA BAY	4	-	-	4	4	100%
MANOR PARK	224	-	23	4	27	12%
MAUNGARAKI	1475	-	105	41	146	10%
MELLING	330	-	17	9	26	8%
MOERA	1201	-	38	8	46	4%
NAENAE	10719	-	1,024	159	1,183	11%
NORMANDALE	1184	-	290	97	387	33%
PETONE	15593	1,604	287	215	2,105	14%
STOKES VALLEY	9222	-	1,463	233	1,696	18%
TAITA	8133	-	725	162	887	11%
TIROHANGA	195	-	13	6	19	10%
WAINUIOMATA	25850	-	2,484	133	2,617	10%
WAIWHETU	3130	-	422	130	552	18%
WATERLOO	4117	-	348	263	611	15%
WOBURN	1496	-	359	105	464	31%
YORK BAY	19	-	4	2	6	32%
Total	119,436	3,054	10,114	2,778	15,945	13%

Source: Property Economics

Table 12 shows that the realisable capacity across Lower Hutt City is around 15,945 new dwellings, representing a 13% realisation rate across the district. In essence, this represents a 42% realisation rate of the already calculated feasible capacity outlined in Table 8.

As expected, the realisation on standalone developments is higher than terraced, with realisable capacity for standalone developments higher than feasible capacity, due to the higher 'margin' of profit levels over the realisable profit rate. Standalone capacity increases by over and above feasible capacity, as it has higher realisable profit margins than more feasible terraced developments.

Table 13 shows the Realisable capacity by district plan zone. Although, the General Residential Zone had a significant higher feasibility rate than the Medium Density Residential Zone, a smaller proportion is expected to be realised. This is because the realisable capacity adjustments remove a larger proportion of the Restricted Discretionary activities.

TABLE 13: LOWER HUTT CITY REALISABLE RESIDENTIAL DEVELOPMENT CAPACITY BY DP ZONE

Realisable Capacity	Theoretical	Apartment	Standalone	Terraced	Total	% of Theoretical
Commercial/Mixed Use	31,605	3,054	56	143	3,252	10%
Medium Density Residential	15,228		1,368	1,125	2,493	16%
Residential	72,603		8,690	1,510	10,200	14%
Total	**119,436**	**3,054**	**10,114**	**2,778**	**15,945**	**13%**

Source: Property Economics

Combined with the greenfield capacity of 903, Lower Hutt City has estimated capacity for an additional 16,848 homes over the next 30 years. This is around 68% of the total 30-year capacity requirement, meaning additional capacity may be required after the first two decades.