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Housing Development Capacity Assessment 2021

M.E Consulting (For HBRC, HDC and NCC)

Housing Development Capacity Assessment 2021

Napier City Council

Hastings District Council

Hawke's Bay Regional Council

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m.e consulting

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Version date	Comment
4/7/2021	Initial draft and partial report Dealing with demand component of the assessment and initial capacity assessment
19/07/2021	Draft report with sections dealing with sufficiency and the implications included.
31/07/2021	Draft report incorporating comments from the Councils.
25/08/2021	Draft report addressing comments from the Councils and refining some presentation matters.
10/09/2021	Final draft report Additional commentary added around the latent demand, the approach followed for the population/dwelling projections and additional commentary added around the Hastings sufficiency assessment. Updated one capacity table and associated text with correct data.

Executive Summary

The urban area of Hastings and Napier is a Tier 2 area under the National Policy Statement for Urban Development 2020 (NPS-UD). This report is the Housing Development Capacity Assessment 2021 for the Napier-Hastings area and forms part of a joint response to the NPS-UD by the three Councils (Hastings District Council, Hawke's Bay Regional Council and Napier City Council). The focus of this assessment is on housing demand and the development capacity over the short, medium, and long term. The project objectives are to:

- Review and consider residential development patterns and conditions across Napier and Hastings,
- Estimate the current and future development capacity in terms of the plan enabled, and commercially feasible capacity and contrast it against the anticipated demand.

The assessment followed a pathway with three streams, covering the demand component, the capacity (supply) aspects as well as engagements. A range of assumptions underpin the modelling, which include assumptions about household size, population growth rates, development costs, land and building values, and so forth. An array of sources was consulted, and a selection of local developers were interviewed to sense check early assumptions and to gauge issues that are impacting the local residential development landscape.

HOUSING DEMAND

Demand for housing is inferred from the recent StatsNZ population projections and the medium-high projections are used. The recently released projections are considerably higher than earlier projection series. The population information is then translated into housing demand and disaggregated into different segments, like household types (e.g. age, number of children), household income levels, and ethnicity.

The future population structure impacts the demand profile and is used as a basis for determining housing affordability. The demand from each of the segments is examined according to dwelling tenure (owned and not owned) and by type of dwelling (detached and attached). The table summarises the growth outlook and a selection of ratios.

Growth outlook		
	Napier	Hastings
Population	65,300-66,000	86,000 - 87,500
Households	26,430	31,300
Outlook to 2050	32,600 (+6,200)	42,300 (+10,970)
Empty dwellings	2%	4%
Non-private dwellings	<1%	1%
Ownership		
Detached owned (include trusts)	61%	61%
Attached owned (include trusts)	7%	7%
Detached not-owned	23%	24%
Attached not-owned	9%	8%
Comment	• Ownership is concentrated in the higher income bands • Pacific, Māori and Asian households have the lowest ownership rates and are overrepresented as households who rent their dwelling.	

Looking forward, **an ongoing shift towards attached dwellings is anticipated.** In Napier, the relativity of attached-to-detached dwellings is expected to move from 0.25 attached dwelling demanded for every 1 detached dwelling demanded, to 0.75 over the long term. A similar profile is expected in Hastings where the relativity is expected to shift from 0.23 (attached dwelling demanded for every 1 detached dwelling demanded), to 0.69 (over the long term).

Competitiveness Margin

Clause 3.22 of the NPS-UD requires that a competitiveness margin be added to projected demand. The purpose of the margin is to support choice and competitiveness in housing and business land markets. These margins are +20% over the short and medium term, and 15% over the long term. The margin adds a sizeable, additional level to dwelling demand, effectively lifting demand levels[1] by:

- Napier:
  - Short term 2020-2023 +170 to +220,
  - Medium term 2023-2030 +258 to +400, and
  - Long term 2030-2050 +332 to +720.
- Hastings
  - Short term 2020-2023 +290 to +360,
  - Medium term 2023-2030 +450 to +620, and
  - Long term 2030-2050 +760 to +1,220.

These estimates do not include a separate allowance for any housing backlog issues. Work to understand the scale and implications (and how to respond to it) is ongoing.

HOUSING SUPPLY

The assessment considered the current dwelling composition and property values for both Napier and Hastings. Consent data, development trends and movements in land values, informed a view about the housing estate in the future and is underpinned by CoreLogic data[2]. The main points regarding the housing supply situation are (June 2020):

- Hastings – Current Estate:
  - The CoreLogic data indicates that there are 31,390 residential properties in total, which concords well with the Census-based estimates of 31,330 resident households. The overall value of the property estate is estimated at $18.4bn (rounded), broken down to:
    - Land value $8.3bn (45%)
    - Value of improvements $10.0bn (55%).
  - The mean values for land value (LV), value of improvements (VoI) and capital value (CV) across the portfolio, (excluding lifestyle properties) are:
    - Land value $246,000,
    - Value of Improvement $290,000, and
    - Capital Value $536,000.
  - Compared to NZ:
    - LVs appear to be lower than the NZ equivalents (62% of NZ levels).
    - The VoI are broadly similar.

[1] The margins are based on the medium-high projections, and the growth between the different periods.
[2] We have identified some anomalies in the data for Napier where the distribution of properties, per value band, appearing very concentrated in the lower bands . But, to maintain comparability with NZ-level trends that data is still used.

- Napier – Current Estate:
    - CoreLogic data shows there are 25,760 residential properties in total in Napier, compared to Census-based estimates of 26,400 resident households (but we note the slight undercount[3]). The aggregate value of the residential property estate is estimated at $12.6bn, broken down to:
        - Land value $5.7bn (45%), and
        - Value of improvements $6.9bn (55%).
    - The mean values[4] across the estate are:
        - Land value $215,000,
        - Value of Improvement $262,000, and
        - Capital Value $478,000.
    - Napier's LVs are lower than the NZ equivalents, with the residential sub-total showing a 55% rate (that is, the median value is 55% of the NZ median value)[5]
    - For CVs, the values are also lower than the NZ equivalents and the VoIs are also below the NZ levels (70% for CV and 92% for VoI)

Over the past twenty years, house prices (in real terms, accounting for inflation), have shifted 332% for Hastings, and in the Napier market prices moved by 284%. These shifts were both higher than the NZ level movements where the real price shift was 271%. **In the past 5 years, both Hastings and Napier have seen very strong price increases. In real terms, prices have increased by 78% and 74% for Hastings and Napier, respectively. This is higher than the 33% recorded across the NZ property estate for the same period. In fact, the increase is more than double the NZ rate**. This underlines the relative attractiveness of the local markets, as well as the relatively low base from which the growth occurred (i.e., the properties are comparatively cheaper). The consent data reveals the effects of the price shifts:

- The data shows a (slow) shift towards higher density typologies, and with intermittent spikes in retirement dwellings.
- The weighted average size of consents is tracking down, influenced by higher density developments.
- Overall, detached houses still dominate activity and town houses, and higher density typologies form a small portion of the overall delivery.

Housing affordability

Household affordability is assessed by comparing the values of the housing estate against affordability levels. This comparison focuses on the non-owner segment, because households that own their dwellings can afford them. The relationship is illustrated by showing what share of properties households in different income bands could afford. In Napier, there are very few houses (<1%) which would be affordable to low-income households. Households with an income less than $30,000 can theoretically afford a dwelling valued around $150,000 - $200,000. However, there are only 60 of these in the current stock (according to council rating data).

[3] That is the mismatch between residential properties and households.
[4] Excluding lifestyle properties.
[5] This observation is based on the CoreLogic data, and we have identified some potential issues with the data. It appears that the CoreLogic data is less than (lower) than expected.

Currently, around 3,220 households are in this low income band, highlighting the need for non-market, and social housing options. Similar patterns are observed in Hastings.

The analysis also drew from information published by MBIE regarding sales and rental information. Generally, the data shows that since 2016-2017, the **rate of change in Hastings-Napier has been amongst the fastest across all locations around NZ.**

CAPACITY ASSESSMENT

According to Policy 2 of the NPS-UD, local authorities are to 'provide at least sufficient development capacity to meet expected demand for housing and for business land over the short term, medium term and long term.' The NPS-UD outlines the types of capacity to consider. The capacity assessment is run at a city/district wide level, reflecting the current planning rules as well as the anticipated planning rules. A combination of GIS and FME[6] modelling is used to identify parcels that could accommodate additional dwellings. The assessment reflects redevelopment, infill, vacant and greenfield potential. The assessment estimates the plan enabled capacity, commercially feasible[7] and reasonably expected to be realised (RER) capacity.

The modelling suggests that under the existing planning rules (Operative District Plan), the capacity across Hastings is for an additional 7,330 dwellings. This includes 1,000 dwellings in rural areas. The redevelopment capacity in the commercial areas is estimated at 3,630 dwellings. In addition to this capacity, there is vacant capacity for a further 330 dwellings. The analysis shows that plan enabled capacity for medium density dwellings is considerable (+2,065). The plan enabled capacity for Hastings remains stable looking forward and does not change because the relevant planning provisions remain constant.

As expected, there is a shift between plan enabled- and commercially feasible capacity (FC) over the immediate (current) and the short term. Currently, around half of the redevelopment capacity (standalone dwellings) is feasible, but the share increases for infill (77%) and vacant (63%) capacity. The share of plan enabled capacity that becomes feasible, increases over time. The shift shows the interplay between land values and development costs. The number of feasible dwellings (capacity) is expected to increase:

- Short term (2023): 3,060, and 1,435 for the suburban[8] and commercial areas, respectively,
- Medium term (2030): 3,425, and 1,500 for the suburban and commercial areas, respectively, and
- Long term (2050): 5,450, and 1,810 for the suburban and commercial areas, respectively.

The weighted average value of the FC is estimated as follows:

	Current	3 year	10 year	30 year
Standalone	$860,000	$920,000	$1,070,000	$1,570,000
Medium Density and Commercial Areas	$560,000	$600,000	$700,000	$1,080,000

The capacity in Napier City, enabled under the Operative District Plan (ODP) in the short, medium, and long term is distributed across the city's residential zones. Current brownfield[9] capacity under the ODP is 2,360 (infill + vacant development) to 6,720 additional detached dwellings (redevelopment). A further 240 to 280 detached dwellings are supported in the rural areas. The plan enabled capacity increases over time because

[6] FME is a Feature Manipulating Engine and provides an ability to include geometric shapes and information in analysis.
[7] The commercially feasible capacity assessment is consistent with the MBIE approach and the relevant developers' margins have been applied.
[8] These figures exclude rural areas, as well as the smaller locations like Haumoana and Clive.
[9] Development that occurs on land serviced by existing infrastructure.

the planning provisions are being reviewed will enable higher density development over time. The modelling suggests potential capacity for between 2,750 and 10,460 additional detached dwellings within the urban area, in the short term and between 2,790 and 14,200 in the medium and long term. The total greenfield capacity is estimated at 2,667 and 3,064 additional dwelling capacity across Hastings and Napier, respectively. And, the greenfield capacity will be delivered in several tranches, covering the short, medium and long term[10].

Like Hastings, the drop from plan enabled- to feasible capacity is material. **A key trend is that, over the medium and long term, the portion of PEC that becomes feasible increases, regardless of the development pathway (redevelopment, infill or vacant). Importantly, the capacity has to be supported by suitable infrastructure to be able to be developed, and to satisfy demand. Infrastructure is a key building block.** The Councils provided input into the infrastructure capacity, but there are caveats and limitations around the long-term views for infrastructure. The caveats and limitations are mostly around the need for more detailed modelling and assessments to confirm the capacity. It appears that both Councils have sufficient infrastructure capacity (including planned investments) to accommodate the anticipated growth for the short and medium term. However for Hastings, the long-term situation is less clear, with unknown infrastructure capacity. This uncertain capacity is excluded from the main analysis and reported separately.

OVERALL CAPACITY SITUATION

HASTINGS				
Type of capacity	Timeframe	Detached (redev and vacant)	Attached (in commercial areas)	Greenfields
Plan enabled capacity		7,645	3,645	-
Feasible capacity	Current	3,900	1,500	
	3y	4,015	1,535	
	10y	4,375	1,605	
	30y	6,475	1,920	
Greenfield and Infrastructure supported	Current	2,105	1,320	569
	3y	2,155	1,340	1,152
	10y	2,330	1,405	1,680
	30y	2,405	1,410	2,667
Unconfirmed Infrastructure	*30y*	*2,475*	*2,370*	

NAPIER				
Type of capacity	Timeframe	Detached	Attached	Greenfields
Plan enabled capacity	Current	7,380	4,820	
	3y	11,540	4,820	
	10y	15,400	4,820	
	30y	15,400	4,820	
Feasible capacity and Greenfield (infrastructure supported)	Current	480	1,790	250
	3y	880	2,490	1,151
	10y	1,750	3,140	2,118
	30y	6,400	3,900	3,064

[10] This is based on the information provided by the Councils (and associated with the Long Term Plans and Long term Infrastructure Strategies).

RECONCILING SUPPLY AND DEMAND

The estimated capacity is reconsidered and expressed as 'Reasonably Expected to be Realised' (RER) capacity. This is then reconciled with the estimated demand. The process is consistent with clause 3.2 of the NPS-UD. The RER considers historic patterns (derived from CCCs[11] and consents).

The main findings for ***Hastings*** are:

1. There is **sufficient capacity over the short and medium term** but the surplus (sufficiency) over the medium term is relatively small and it is sensitive to the assumptions associated with
2. Comparing the RER capacity against the demand outlook (including the competitiveness margin), and assuming a move to more intensive development, sees **sufficient capacity in the short and medium term**, but a deficiency remains for the long term. This RER is subject to some shifts towards higher density typologies.
3. There is uncertainty associated with infrastructure provisions over the long term. Even if long-term RER capacity includes the infrastructure constrained capacity (lifting capacity to capacity to 42,100) a deficit remains. This **deficit remains** regardless of whether the competitiveness margin is included or excluded[12].

For ***Napier***,

- Excluding the development margin:
    - There is **sufficient capacity** over the short, medium and long term at a city-wide level. Over the long term, the potential dwelling estate is estimated at 32,600. This includes RER capacity for an additional 3,500 dwellings.
- Including the development margin:
    - There is enough scope in the market to enable the RER to adjust and move toward higher densities in the existing urban areas (vs greenfields) to satisfy demand (plus the margin). The analysis shows that a small shift in the relative shares (greenfield vs urban and detached vs attached) would be needed to **achieve/maintain sufficiency**.

IMPACT OF PLANNING

Assessing the impacts of planning is a requirement under NPS-UD 3.23. The requirement is to identify how planning and infrastructure provision can be expected to affect housing affordability. This is a complex task with many interrelated parts. Affordability is affected by influences at the local, regional and national levels. Councils' planning and infrastructure are predominantly location specific. Given the complexity in isolating the local (and so planning) impacts, an alternative way to identify the potential contribution is to compare local trends against those felt across NZ. A large portion of the local effects of planning are, in fact, incorporated in the feasibility assessment (e.g. minimum lot sizes, location and so forth). The main comments on the impacts of planning in Napier and Hastings are:

- **Housing prices and construction trends:** The response from the local construction sector and availability of capacity (to develop) suggests the local planning environment is supporting the housing market. However, the capacity that is currently available reflects historic planning activity. The capacity analysis suggests that over the long term, capacity constraints could emerge. These

[11] Certificate of Code Compliance and is based on a high-level spatial analysis focusing on the urban areas (the spatial analysis was established for this assessment and does not necessarily align with Council's internal spatial definitions).
[12] The deficit is 190 with the margin excluded or, 1,190 if it is included.

constraints are related to infrastructure issues in Hastings. This is an important matter that will need to be addressed.

- **Land Values as share of overall prices:** Over the long term, the LV-Price ratio is expected to shift down. This direction reflects a diminishing role of land value in the overall housing price proposition. Over the long term, this ratio will need to be monitored to track the potential impacts of infrastructure constraints (especially in Hastings).
- **Consent and construction activity:** The consent trends and movements do not support a position that suggests that planning is not supporting (undermining) activity. Consent sizes (m^2) have been tracking down and overall totals have shifted up. If a market is constrained by land, then higher land values would translate into higher value developments (to generate a sufficiently high return on the overall development). Such a pattern is not evident in the consent data. The consent data also reveals a move towards alternative typologies, thereby implying that the construction sector is delivering more choice(s) to households.

The competition between locations (greenfield and urban) is expected to remain constant because of the enabled capacity (that comes from moving towards higher density typologies over time).

Ensuring that there is sufficient capacity in the local market is an important role (of planning) and the analysis shows that planning is not currently constraining the development activity. However, some pressures will emerge over the long term.

HOUSING BOTTOM LINES

Clause 3.6(1) of the NPS-UD requires that 'the amount of development capacity that is sufficient to meet expected housing demand plus the appropriate competitiveness margin'. The following Housing Bottom Lines are suggested. They relate to the Councils' preferred growth pathway (i.e. the medium-high growth futures as informed by StatsNZ's population projections).

	Suggested housing bottom lines	
	Hastings	Napier
Short term (2020-2023)	1,920	1,190
Medium term (2023-2030)	3,270	1,990
Long term (2030-2050)	7,640	4,010
Covering the entire district and city		

It is important to note that if Councils' growth projections are updated (which they frequently are), that these Housing Bottom Lines would also need to be updated[13]. The Councils would also need to consider how to deal with housing backlog issues (i.e. shortfalls that are historic and not reflected in the base growth patterns). **The work around determining the size of the backlog (or latent demand) is ongoing and would be reported alongside the suggested bottom lines.**

[13] As would this HBA.

Contents

Figures

Tables

Appendices

1 Introduction

More than 80% of the population in Hawke's Bay Region, live in Napier City and Hastings District. Napier City covers approximately 105km^2, with an estimated resident population of 64,200 people in 2018.[14] Hastings District spans 5,230km^2 covering areas surrounding Napier City. Hastings includes the separate urban areas of Havelock North, Flaxmere and Clive. Based on Census 2018, the estimated resident population of Hastings was 84,700.

The two areas are identified as Tier 2 under the National Policy Statement for Urban Development 2020 (NPS-UD). This means that the two Councils are identified as having medium population growth. Historically, Napier City has shown moderate growth, with the population increasing by 5% and 8% between Census 2006 and 2013 and Census 2013 and 2018, respectively. The population of Hastings District has grown slightly faster over the more recent years, increasing by 5% between 2006 to 2013, but up by 10% between 2013 to 2018. Since the 2013 census, population growth in both areas has primarily been driven by positive net migration, accounting for 83% of population change in Napier City and 75% in Hastings District.

This report is the Housing Development Capacity Assessment 2021 for Napier City and Hastings District. The report is in partial fulfilment of the overall Housing and Business Development Capacity Assessment (HBA). The assessment assists the local Councils to comply[15] with the requirements as outlined in the NPS-UD relating to Tier 2 Territorial Authorities.

Housing demand, demand for (housing) land in the urban environments, and the development capacity are assessed. This is then evaluated in terms of the relationship between the demand and capacity (supply) for Napier City and Hasting District. The demand is considered across the short, medium, and long term.

1.1 Project aim and objectives

The objectives of this report[16] are to:

- Review the residential development patterns in Napier and Hastings with a view to inform the housing assessment.
- Provide an overview of the household patterns and the expected shifts over time, and associating these shifts with the implications for housing.
- Assess the local, residential real estate market in terms of the redevelopment, infill, and vacant capacity by considering the provisions in the District Plans. That is, estimate the plan enabled capacity.
- Develop and apply a framework to estimate the commercial feasibility of the plan enabled capacity, and how it changes over time.
- To compare the overall housing demand and capacity (over time) to form a view regarding the overall sufficiency and ability to meet the expected demand for housing over the short, medium, and long term.
- Provide information and an evidence base to inform the housing bottom lines, RMA planning documents, future development strategies (FDSs) and long-term plans (LTPs).

[14] Census 2018, Statistics New Zealand.
[15] Looking specifically at the housing component. The business components are beyond the scope of this assessment.
[16] As set out in clause 3.20 of the NPS-UD.

1.2 Approach

The assessment followed a pathway with three streams, covering the demand component, the capacity (supply) aspects as well as engagements with Council staff and a selection people in the local development landscape.

The demand component uses M.E's Housing Demand Model (2021).[17] The model provides detail on housing demand in Napier City and Hastings District, and it is set up for each area independently. The current and projected size (quantum) and breakdown across different attributes are presented as outputs. The following attributes are reported:

- household types,
- dwelling types,
- dwelling tenure, and
- household incomes (as one important determinant of housing affordability).

A general assumption applied in the analysis is to equate one resident household to one dwelling. Put differently, one household is assumed to occupy one dwelling. The future demand for housing is based on population growth and household numbers (to reflect demographic shifts) and these are then linked back to the Housing Demand Model to estimate the breakdown of demand for housing, among different segments in the community. The headline (total) estimates are disaggregated to different socio-demographic segments (household type, size, age, and income), and then with a further breakdown according to ethnicity. The demand profiles that are revealed across several data sources inform and underpin the future demand patterns. The spatial patterns associated with the demand profiles are also considered when assessing housing affordability.

The demand assessment's primary focus is on usually resident households, and those who occupy different dwellings in the City and District. Resident households account for a large share of private dwelling demand. However, the visitor market is another share of the overall housing market, and this is also considered. Similarly, seasonal workers impact on accommodation demand, locally and across the wider Hawkes Bay. These segments, from non-resident households are part of overall demand for dwellings and are estimated separately.

The capacity (supply) component assesses the current and future residential estate. The housing supply situation is considered and identifies the size and nature of the current and future dwelling estates, including dwelling typology and values and provides the supply-side platform for the Housing Affordability assessment.

The development trends and development capacity are both used as inputs into the process. A detailed, parcel level analysis is used to estimate the plan enabled capacity and commercially feasible capacity. In turn, these results inform the infrastructure ready part of the evaluation. The capacity assessment results are reported using different dimensions, including:

- Distribution of properties across different value bands,
- Growth and additions to the residential stock (new buildings) and the associated values,
- The growth potential, including infill, redevelopment and greenfield development based on available capacity (at a parcel level), again at a value band level as well as a location level (e.g., by stormwater catchment).

[17] The Housing Demand Model is a proprietary model developed by Market Economics and it is used to identify and assess the current and projected size and the structure of demand for housing.

Engagement with Council staff and individuals active in the local development landscape formed a key part of the process. In-person meetings, telephone calls and teleconference calls formed the basis of the engagements. The engagements were used to verify and test the input parameters (e.g., costs) and to explore the issues that are impacting the local residential development landscape.

Further details about the technical approaches and the underlying assumptions are provided throughout the body of the report.

1.3 Information and Data

A range of sources was used in undertaking this assessment, and the main ones include:

- Several StatsNZ datasets. M.E made extensive use of the StatsNZ data resource. Most parts are available for download from sources like Infoshare and Stat.NZ. But some key parts were obtained by way of customised data requests. Examples of the datasets used include:
    - Different Census datasets (2006, 2013 and 2018),
    - Different projection series, including the population and household projections series.
- Rating datasets from the Councils,
- District Plans,
- Custom data purchased from CoreLogic,
- Information from Land and Information New Zealand,
- In-house economic and demographic models and datasets.

1.4 Caveats and Limitations

Like all modelling, several limitations and caveats affect the work, including:

- The assessment is structured in a way that will support NCC and HDC to use parts of it to comply with elements of the wider requirements of the NPS-UD.
- The assessment provides an indication of future affordability and overall demand levels. These are based on known trends, relative size of different household segments (and types), and household estimates. It does not model or project macro-economic conditions (like interest rates) or the effects and implications of wider issues, like climate change and how the Council might respond. As such, the assessment takes a conservative position.
- The figures and data used as inputs into this report are constantly being updated and revised as new official data is released. Some of these inputs were updated during this analysis, and this is specifically relevant for the 'current' (2020) data point. However, this means that there could be a difference between the numbers reported (in this report) in and those associated with subsequent releases. This applies to all sources, including Council data.
- The assessment is structured in a way that will support Hawke's Bay Councils to comply with elements of the NPS-UD. However, this assessment does not contain all the information needed to undertake the Housing and Business Assessment (HBA). It does not cover the business assessment.
- The work is limited by the availability of information that covers all the needed aspects. This includes elements like Māori households and the detailed aspects associated with this segment. The available data does not offer a spatial breakdown of attributes, but instead covers the entire territorial areas. This introduced some challenges, and these topics are considered using available information.

- The Councils information and data (e.g., rating information) were not reviewed or audited, and we have assumed that they are accurate. In addition, the assessment relied on some information pieces and sources with their own set of limitations and caveats. These also apply in this study. An area that would require additional analysis going forward is the long term (30 year) capacity associated with infrastructure.
- We note that the different datasets do not triangulate across all metrics. For example, the share of the dwellings that are un-occupied (i.e., holiday homes) vary depending on the source that is consulted.
- The modelling is based on the household projections that reflect the recently released population projections (from StatsNZ). These new projections were used to derive an updated set of household projections, but a full household projection exercise was beyond the scope of M.E's assessment.
- The analysis draws on forward-looking data and forecasts about the macro-economic conditions for NZ and the economy in general. While important, the analysis does not look at the potential sensitivity of the local residential market to the macro conditions.
- Some of the datasets show anomalous movements that are likely associated with short term volatility. The analysis looks past these movements to reflect a conservative position. It does however mean that the implications of some high movements over the short term are understated.
- The demand across different ethnic groups is estimated using available information and datasets. These datasets have some limitations, impacting the ability to triangulate the results across multiple tables and dimensions. Therefore, these results should be seen as indicative and used with caution.
- The potential effects of the post-COVID landscape on the short- and medium-term growth patterns are unknown and uncertain.
- The analysis is based on the recent data releases, but the property market is moving at considerable speed and therefore the data might be somewhat behind the market.
- Commercial areas are often reserved for exclusive business use. However, some higher density residential activities are enabled in commercial areas, but the commercial activity takes precedent, and the residential activity is ancillary. This means that the capacity and feasibility of the residential activity can only be considered if the commercial component is viable. The feasible capacity analysis did not consider the feasibility of the commercial component. In zones where residential activity is only permitted above ground level, it is assumed that the commercial activity on the ground floor is commercially viable.
- In terms of plan enabled capacity, infill capacity above existing commercial buildings was not considered due to high level of uncertainty about engineering costs to realise the infill capacity. The infill capacity in the commercial zones were limited to the vacant part of parcels (subject to the planning provisions).
- The analysis considers the population projections from StatsNZ and use these as the core input regarding future growth. However, during the project process, the Councils pointed to a desire to include historic housing backlog and shortfall issues in the housing assessment. A portion of the housing backlog and shortfalls are covered by social housing (and these are reported based on Kainga Ora data). While the assessment draws on Census data, which explains household, and housing information, the recent shifts in the social housing needs suggests that the official data might understate the true needs. The housing assessment is based on current and anticipated household growth patterns and housing demand, but it does not make an explicit allowance to address historic shortfalls or backlogs.

1.5 Coverage

The HBA is an assessment of housing demand and development within the urban environment. However, the assessment was completed for the entire spatial extent of the Hastings District Council and Napier City Council areas. This wide coverage ensures that a portion of future growth is allocated across the relevant areas, including rural locations (earmarked for future development as well as the smaller, coastal areas). Similarly, some identified greenfield development areas are included in the analysis even if these areas are located outside the current urban areas.

The assessment occurs at a parcel level and the results are then aggregated into broad areas to make reporting more manageable, while at the same time illustrating core spatial patterns and relativities. The spatial structuring considered the urban economies of Napier and Hastings, as well as the smaller urban locations throughout the two areas. The NPS-UD, in many areas, also requires assessment across surrounding districts where these are defined as part of the urban environment of a major urban location. The analysis runs at a parcel level with the relevant zones acting to exclude parcels from the analysis. This means that some parts of the district and city are excluded and not considered. Put simply, if residential development is not enabled/allowed on a parcel, then it is excluded. Therefore, large parts of Napier-Hastings are excluded because of the rural nature (and the associated zoning provisions). The following broad structure applies:

- Some non-urban areas are excluded from the core capacity analysis. This includes agriculture and horticultural areas (mainly associated with rural production zones). This is because it is assumed that future growth will be accommodated in suitable locations, away from rural production locations. A small portion of growth could however still occur in rural production locations.
- Some rural areas (like coastal areas and small settlements) are treated as part of the rural areas and are still included in the reported figures. However, the focus is on the urban-area as required by the NPS-UD.
- A range of non-residential areas, like industrial zones, recreation areas, education and community facility-areas are also excluded from the capacity assessment.

As mentioned above, it is acknowledged that a portion of the population lives in the rural production areas. however, this assessment's main focus is on the urban areas, and therefore the rural (production) components do not receive attention.

We understand that earlier research has estimated potential housing capacity in the wider rural environment, beyond the rural residential zones. For example, in the Rural Zone in Hastings, a lifestyle lot can be subdivided off larger lot every three years. In addition, all zones within Hastings allow for Papakainga housing developments (n ancestral land), which has been utilised in recent times for several Marae based housing developments on the Heretaunga Plains (close to urban areas). Importantly several more Papakainga developments are under investigation and could potentially add in the order of 110 to 300 additional dwellings to meet Māori housing needs. In addition there are approximately 70 existing lots in the Plains Production Zone that are entitled to have a dwelling erected upon them. In the context of the NPS-UD, the key required for plan-enabled is 'land is zoned for housing or for business use (as applicable) only if the housing or business use is a permitted, controlled, or restricted discretionary activity on that land'.

The primary focus of the analysis is on the main urban areas, areas providing for residential amenities, and and areas with higher urban amenity. However, it is acknowledged that a portion of the population lives in

rural and production areas. Similarly, the assessment includes parts of the commercial locations where residential activity could occur. Overall, the assessment considers areas with:

- Greenfield development potential,
- Infill and redevelopment opportunities, and
- Vacant areas in existing developed areas.

Current and future urban areas (i.e., greenfields) are both included as are the commercial areas where residential development could be delivered. The plan enabled, commercially feasible and infrastructure ready (serviced) capacity is estimated for potential residential developments, regardless of location using a set of assumptions that are based on observed trends.

We note that the NPS-UD's scope is on the urban areas and therefore smaller settlements are outside of this scope. However, we have included some smaller (coastal) areas in the assessment to show a wider picture of the development landscape. Table 1-1 summarises the spatial structure used in reporting the results. This structure is simply an aggregate of different locations (Statistical Area 2) to streamline the reporting (a finer breakdown can be provided if needed).

1.6 Report Structure

The report is organised into three parts, with sections in each part. The structure is as follows:

Part 1 presents the Housing Market Assessment. This part contains the following sections:

- Section 2: Describes the household demand profiles for Napier City and Hastings District. The section outlines household patterns in terms of household types, income levels, age profile and tenure for each area. It also shows the anticipated housing demand looking forward.
- Section 3 describes the housing supply situation, recent development trends (consents) and recent shifts in dwelling values.
- Section 4 deals with housing affordability, covering the current and future outlooks of this important metric.

Part 2 covers the Housing Capacity Assessment.

- Section 5 outlines the approach taken, and the results of the plan enabled capacity assessment, as well as the feasible development capacity assessment. The section then progresses to the results of the infrastructure ready (and supported) considerations.
- Section 6 extends the analysis by reconciling the development capacity from a reasonable expected to be realised perspective. The second part of this section describes the sufficiency of capacity. The relationships between the enabled capacity and the household growth patterns are considered.

Part 3 concludes the report.

- Section 7 discusses the impacts of planning and infrastructure on the residential landscape and provides suggestions regarding the housing bottom lines. The section also provides commentary on the outlook for housing affordability (but in the context of the impact of planning).

Supporting data and technical information are presented in the appendices.

Table 1-1: Spatial structures

Hastings	
Reporting Area	SA2
Coastal	Clive
	Haumoana-Te Awanga
Flaxmere	Flaxmere West
	Lochain Park
	Flaxmere Park
	Flaxmere South
Hastings NW	Camberley
	Raureka
	Raceway Park
	Mahora
	St Leonards
	Cornwall Park
	Frimley
Hastings SE	Akina Park
	Parkhaven
	Mayfair
	Hastings Central
	Parkvale
	Queens Square
	Tomoana Crossing
Havelock North	Lucknow
	Havelock North-Central
	Karanema-St Hill
	Havelock Hills
	Brookvale
	Iona
	Hereworth
Rural	Omahu-Pakowhai
	Puketitiri-Tutira
	Maraekakaho
	Sherenden-Crownthorpe
	Poukawa
	Kahuranaki
	Mangateretere
	Karamu
	Te Mata Hills
	Puketapu-Eskdale
	Twyford
	Bridge Pa
	Longlands-Pukahu
	Tomoana
	Omahu Strip
	Mangarara
	Irongate
	Mangaonuku
	Maungataniwha-Raupunga

Napier	
Reporting Area	SA2
Ahuriri/Onekawa West	Ahuriri
	Onekawa West
Marewa/Maraenui/Onekawa	Maraenui
	Marewa East
	Marewa West
	Onekawa Central
	Onekawa South
	Onekawa East
Napier South/Hills/Westshore	Westshore
	Hospital Hill
	Bluff Hill
	Napier Central
	Nelson Park
	McLean Park
Rural	Poraiti Hills
	Poraiti Flat
	Meeanee-Awatoto
	Bay View
	Greenmeadows West
	Pirimai East
	Pirimai West
Tamattea/Pirimai/Greenmeadows	Tamatea North
	Tamatea West
	Tamatea East
	Greenmeadows South
	Greenmeadows Central
Taradale	Taradale Central
	Tareha Reserve
	Taradale South
	Taradale West
	Bledisloe Park

PART 1: HOUSING MARKET ASSESSMENT

2 Housing Demand

Section Summary: This section provides an outlook of housing demand, broken down by household types, income groups and ethnicities. StatsNZ's population projections underpin the outlook. The assessment uses the average between the medium- and high series i.e., the medium-high is the preferred set[18]. The population estimates are translated into households by combining a mix of historic household size ratios and different population estimates. The average household size is assumed to decline in line with historic profiles. Nevertheless, household numbers are expected to increase.

The Napier-Hastings areas are both characterised by relatively low-income levels when compared against the NZ average. Similarly, the resident populations are expected to age. This will have implications for housing affordability as well as other social metrics. Affordability often becomes progressively more important for non-owner households in the middle and later years, as remaining lifetime earning potential reduces, and ability to access housing finance often reduces in line with the lowering earnings potential. Currently, detached dwellings are the preferred format. But the combination of shifting demographics and changes in housing costs means that a transition to higher density dwelling typologies is expected. Key points regarding Napier:

- The population is estimated at 65,300 to 66,000 and is expected to grow to between 72,300 and 83,700 (medium and high outlook). The rate of change is expected to slow over time.
- Household numbers are estimated at 26,430, and family households are the largest group (9,080) followed by couples (8,260)
- Forty-three per cent of households have incomes less than $50,000. Smaller households tend to have lower income levels.
- Future growth is expected to be concentrated around the lower income, and smaller households. This is consistent with the ageing population.
- European households account for the largest share in terms of ethnic mix.

Key points regarding Hastings

- The population is estimated at between 86,800 and 87,500. A growth outlook is expected with the population growing to between 104,600 and 119,800.
- The district has an estimated 31,300 households.
- Households are skewed towards the lower income bands with 39% of households earning less than $50,000 per year.
- Compared to Napier, Hastings is ethnically more diverse. But European households still account for most households.

The growth outlook and competitiveness margin[19] for Napier and Hastings is estimated as follows.

	Napier	Hastings
Short term	1,000 (+200)	1,600 (+320)
Medium term	1,700 (+340)	2,730 (+550)
Long term	3,500 (+525)	6,640 (+1,000)

[18] For context, the difference between the StatsNZ's medium population projection and the medium-high figures used in the assessment is around 7% for both Napier and Hastings (based on the population estimates for the long term).

[19] The competitiveness margin is added to the estimated demand (20% and15%) with the assumption that adding the margin will support choice and competition.

The outlook for dwelling demand captures the current situation and the overall change in dwelling demand. This implies that the current shortfalls (backlogs or latent demand) are not included. Work to estimate the potential size of this demand component is ongoing and the Councils need to determine how to address this important demand segment. The shortfall is associated with social housing needs as well as households associated with the lower-income levels.

The section sets the scene for the housing assessment and outlines the housing demand for Napier City and Hastings District. The section starts by presenting the population outlook based on the updated population projections (from StatsNZ). These population projections were translated into household estimates and the socio-demographic attributes were linked to the estimates. This approach provides an ability to account for the expected growth in household numbers while also capturing the dynamic effects of population change (like ageing). Total and additional demand for housing is identified.

The demand assessment uses the household projections as a starting point for the household base and outlook. It examines the current attributes of households before using the growth projections and applying the household attributes (spatially) to provide a breakdown of demand by location.

The demand is also considered using different segments, including dwelling tenure and type of dwelling. The breakdown ensures that the reporting complies with the NPS-UD requirements to consider 'different groups in the community'.

The analysis is based on the M.E *Housing Demand Model 2021.* The Model provides detail of current housing demand and projected future demand in Napier City and Hastings District. The Model identifies the size and structure of demand for housing[20] both currently and for the projected future. The size of demand is presented in terms of numbers of households, while the structure of demand is examined in terms of household types, dwelling types, dwelling tenure, and household income. These elements form the basis for determining housing affordability.

Demand is identified in terms of numbers of resident households, allowing for one dwelling per household[21]. Projected future demand for housing is based on projected future resident households, which is underpinned by Stats NZ population data. However, housing demand varies across community segments. This means that housing demand shifts as the population size and structure changes. To accommodate these shifts, the modelling considers the shifts within each socio-demographic segment (household type, size, age, and income), and is further analysed according to ethnicity. This is underpinned by analysis of district level data from the 2018 Census and projections of households in each segment.

The demand from each of the segments is examined according to dwelling tenure (owned and not-owned) and by type of dwelling (detached and attached).

The section starts by considering:

- The population and household base and the outlook for households
- The current housing demand in terms of household types, incomes, and ethnicities.
- The projected demand for housing allowing for demographic changes.

The results are presented separately for Napier City and Hastings District.

Note: The figures are rounded throughout the report. In a handful of cases, the rounding means that the totals across multiple tables are similar, but not the same.

[20] This consistent with Policy 1, also 3.2(1), 3.10, HBA 3.19, 3.23(3).
[21] As per NPS-UD 3.34(4).

2.1 Base population and population outlook

The anticipated population outlook forms the basis for household estimates. It is based on the StatsNZ data, and the outlooks are presented in tables covering three periods:

- Short term 2020-2023,
- Medium term 2020-2030, and
- Long term 2020-2050.

StatsNZ's low, medium- and long-term projections inform the analysis. The Napier City and Hastings District situations are discussed under separate headings.

2.1.1 Napier City - Population

The population growth outlook for Napier is presented in Table 2-1. The Napier **population is estimated at 65,300 to 66,000 people** with the range showing the difference in the medium and high growth projections. Under the medium outlook, the population is projected to increase by 7,000 people to reach 72,300 by 2050. The high and low projections provide a wider range of population outcomes with the population growth ranging between 61,400 and 83,700 in 2050, respectively.

Table 2-1: Napier Population Growth Outlook – Short, Medium and Long Term

Projection	Current	Short Term			Medium Term			Long Term		
	2020	2023	2020-23	2020-23 %	2030	2020-30	2020-30 %	2050	2020-50	2020-50 %
Statistics NZ (2021)										
High	66,000	68,700	2,700	4.1%	73,100	7,100	10.8%	83,700	17,700	26.8%
Medium	65,300	67,100	1,800	2.8%	69,200	3,900	6.0%	72,300	7,000	10.7%
Low	64,800	65,600	800	1.2%	65,400	600	0.9%	61,400	- 3,400	-5.2%

In Napier, the population is projected to increase by 1,800 over the next 3 years, with the increase ranging from 800 to 2,700 people. Over the medium term (between 2020 and 2030), the population is expected to increase by another 3,900 residents with growth expected to vary between 600 and 7,100. The variance over the medium term is considerable with the high scenario being 6% higher than the medium, and the low scenario being 94.5% of the medium scenario. But, over the long term, the variation between the projection sets becomes more pronounced. A key reason from this is contraction in population numbers under the low project set. Over the long term (between 2020 and 2050), under the low projection set, the total number of people residing in Napier decreases – down 3,400 by 2050. This contrasts with the medium and high scenarios which both show growth. The growth (2020-2050) under the medium projection is estimated at 7,000. The high growth is 2.4 times greater (17,700).

The growth rate (compound) slows over the extended term under all the projection sets. Under the medium projections, the population is expected to grow at 0.9% between 2020, before slowing to 0.4% between 2023 and 2030. Then the growth slows even further between 2030 and 2050, dropping to 0.2%. For the high growth projection series, a downward trend is expected with the compound growth over the three timeframes estimated at 1.3%, 0.9% and 0.7%, respectively. A similar downward trend is observed for the low projection set. But a key difference is that while all the sets decrease over time (growth slows down), under the low projection set, the growth turns negative over the long term. **That is, the long-term outlook is for the population to continue to grow, except under the low projection set, that has it contract (become smaller) between 2030 and 2050.**

Under the low projection set, the total number of people residing in Napier decreases over the long term – down 3,400 by 2050. This contrasts with the medium and high scenarios which both show growth.

Under the medium projection set, **the number of additional people living in Napier will increase by 600/year over short term, 300 over the medium term and 155 over the long term. The high projection set returns considerably higher annual movements, coming in at 900/year over the short term, 630 over the medium term, before reducing to 530/y**. The low projection set returns 270/year growth (in residents) before tracking down and the City then losing people (estimated at -200/year over the long term).

2.1.2 Hastings District - Population

The population growth outlook for Hastings is positive across the low, medium, and high growth outlooks. Estimates put the current population in the district at between 86,000 and 87,500. Under the medium projection set, the population is estimated at 86,800. Table 2-2 summarises the population outlook.

Table 2-2: Hastings Population Growth Outlook – Short, Medium and Long Term

Projection	Current	Short Term			Medium Term			Long Term		
	2020	2023	2020-23	2020-23 %	2030	2020-30	2020-30 %	2050	2020-50	2020-50 %
Statistics NZ (2021)										
High	87,500	92,000	4,500	5.1%	99,800	12,300	14.1%	119,800	32,300	36.9%
Medium	86,800	90,000	3,200	3.7%	94,800	8,000	9.2%	104,600	17,800	20.5%
Low	86,000	88,100	2,100	2.4%	89,900	3,900	4.5%	89,900	3,900	4.5%

Hastings' population is projected to increase by 3,200 over the next 3 years, with this increase ranging between 2,100 and 4,500. Between 2020 and 2030 (medium term), the population is expected to grow by another 8,000 residents. Growth during this timeframe is expected to vary between +3,900 and +12,300. The variance is around 50%, with the high projection set being 54% greater than the medium, and the low set being 49% of the medium. The variance in growth pathways continues over the long term with the difference from the medium increasing to close to 80%.

The population growth is expected to remain in positive territory regardless of the projection set and is not expected to decline. However, under the low growth settings, the long-term growth is expected to be flat, with 0% (compound) growth between 2030 and 2050. This means the population would grow between -5% and 37% over the next thirty years.

Under the medium projection set, the number of additional people living in Hastings will increase by 1,070/year over short term, 690 over the medium term and 490 over the long term.

2.2 Socio-demography profiles

The composition and structure of households are important drivers of housing demand. The socio-demographic are discussed by linking attributes to household types. The following attributes are considered:

- Income levels,
- Age distribution, and
- Ethnicity.

It is important to note that the preceding sections used population as the main metric but in the next sections, the discussion uses households. The household projections reflect the medium-high growth pathway

associated with the StatsNZ population figures. The medium-high projections have been selected as the preferred option because the recent growth patterns and levels of change show a reasonable match with SNZ's earlier medium-high projection set[22]. It is assumed that this relationship will continue. We note that while the population projections (from StatsNZ) have been updated. However, the official household projections were pending when the analysis was completed. Several different options to convert the population projections to households were considered. These options were presented to the Council staff and a preferred approach was selected.

2.2.1 Household Type and Income

The distribution of household types by income levels is discussed below. The two areas are dealt with separately.

Napier City

The available information suggests that there is a wide spread of household incomes with a noticeable concentration of households in the low(er) income cohort. Table 2-3 summarises the distribution of households along two dimensions:

- Household types (rows down the left), and
- Household income bands (headings across the top).

Table 2-3: Households by Type and Income Band – Napier City, 2020

Household Type	<$30,000	$30-50,000	$50-70,000	$70-100,000	$100-120,000	$120-150,000	$150,000+	Total
One Person household	4,580	1,550	850	440	120	10	50	7,600
Couple household	500	1,980	1,410	1,560	950	860	1,000	8,260
2 Parents 1-2 children	90	260	540	1,080	710	720	940	4,340
2 Parents 3+ children	30	60	140	290	180	160	250	1,110
1 Parent Family	1,110	900	770	560	190	60	40	3,630
Multi-family household	10	30	40	100	60	110	250	600
Non-family household	90	210	190	170	90	60	80	890
Total Households	6,410	4,990	3,930	4,190	2,310	1,970	2,620	26,430
One Person household	17.3%	5.9%	3.2%	1.7%	0.5%	0.0%	0.2%	28.8%
Couple household	1.9%	7.5%	5.3%	5.9%	3.6%	3.3%	3.8%	31.3%
2 Parents 1-2 children	0.3%	1.0%	2.0%	4.1%	2.7%	2.7%	3.6%	16.4%
2 Parents 3+ children	0.1%	0.2%	0.5%	1.1%	0.7%	0.6%	0.9%	4.2%
1 Parent Family	4.2%	3.4%	2.9%	2.1%	0.7%	0.2%	0.2%	13.7%
Multi-family household	0.0%	0.1%	0.2%	0.4%	0.2%	0.4%	0.9%	2.3%
Non-family household	0.3%	0.8%	0.7%	0.6%	0.3%	0.2%	0.3%	3.4%
Total Households	24.3%	18.9%	14.9%	15.9%	8.7%	7.5%	9.9%	100.0%
Relative Concentration								
One Person household	**2.48**	**1.08**	0.75	0.37	0.18	0.02	0.07	
Couple household	0.25	**1.27**	**1.15**	**1.19**	**1.32**	**1.40**	**1.22**	
2 Parents 1-2 children	0.09	0.32	0.84	**1.57**	**1.87**	**2.23**	**2.18**	
2 Parents 3+ children	0.11	0.29	0.85	**1.65**	**1.86**	**1.93**	**2.27**	
1 Parent Family	**1.26**	**1.31**	**1.43**	0.97	0.60	0.22	0.11	
Multi-family household	0.07	0.26	0.45	**1.05**	**1.14**	**2.46**	**4.20**	
Non-family household	0.42	**1.25**	**1.44**	**1.20**	**1.16**	0.90	0.91	

Source: ME Housing Demand Model 2021

Based on the StatsNZ data, there are 26,430 households in Napier. These households have different attributes in terms of the type of households and their income levels. As a group, family-households are the largest with 9,080. This is followed by couple households (8,260) and one-person households (7,600). Multi-family and

[22] This is the preferred option as per the Council staff.

non-family households add another 600, and 890 households, respectively. In terms of household structure, small households make up the largest share of total households. Couple households and one person households represent 31% and 29% of all households in Napier, respectively. Parent(s) with children household types[23] represent a combined 34% of all households. The remaining family types, multi- and non-family households represent 2% and 3% of households.

In terms of income levels, around a quarter (24%, or 6,410) of households have incomes of $30,000 or less, and another 19% (4,990) have incomes in the $30,000 to $50,000 range. Combined, this suggests that 43% of Napier's households have incomes of less than $50,000. This is noticeably higher than the national benchmark of 34%. **This highlights the relatively low income levels of the local community.** At the other end of the spectrum, there are an estimated 2,620 households (10%) with incomes of $150,000 or higher. Another 16% of households fall in the $100,000-$150,000 income cohorts. This suggests that slightly more than a quarter (26%) of households have incomes greater than $100,000 per year. The balance of households (31%) falls in the middle-income cohorts, i.e., between $50,000 and $100,000.

When looking at income distribution across household types, there is a split based on the number of income earners. The bottom third of the table (with the blue shading) shows the relative concentration of a household type-income band combination benchmarked against the Napier situation. If a combination is over-represented, then it is shaded as blue. If the reported figure is greater than one (>1), then it is overrepresented. A figure less than one (<1) simply means that the combination is underrepresented compared to the benchmark (i.e., the overall income/household type combination). While the income distribution for couple households is somewhat evenly spread throughout the income bands above $30,000, one person households are disproportionately concentrated towards the lowest income bands. This is often the case, as one person households are supported by a single income earner. As such, one person households with an income less than $30,000 are the largest individual group by type and income, at 17% of all households or 60% of all one person households and 71% of all households with an income less than $30,000. **The data confirms the observation that smaller households tend to have lower income levels (vs larger ones). It is worth noting that a larger household, with more income earners, does not necessarily imply that a household is wealthy. The higher incomes will be used to support more household members.**

Hastings District

The Hastings District has an estimated 31,330 households. This estimate is based on the medium-high population projections and an application of historic household size (and trends). Table 2-4 the distribution of households across type and income bands.

The data suggests that household incomes are skewed towards the lower income bands. Households with incomes less than $30,000 account for slightly less than a quarter (22%) of the districts' households (6,740). Another 18% (5,500) have incomes in the $30,000 to $50,000 range. **Put together, this means that 39% of the district's households have incomes less than $50,000. This is noticeably higher than the national pattern (34%).** At the upper end of the income spectrum, 3,650 households (12%) have incomes of $150,000 or higher.

[23] Includes 2 parents 1-2 children, 2 parents 3+ children, and 1 parent family

Another 17% of households fall in the $100,000-$150,000 income cohort. The balance (32%) falls in the middle-income cohorts, between $50,000 and $100,000.

Considering the overall sizes, small household types account for the highest proportion and make up over half of all households. Couple households make up 30% of all households in Hastings, while 25% of households are of the one-person type. 2 parents with children and 1 parent with children represent 25% and 15%, respectively. The remaining types, multi-family, and non-family households, are the smallest two types at 3% and 2.9%, respectively.

Table 2-4: Households by Type and Income Band – Hastings District, 2020

Household Type	<$30,000	$30-50,000	$50-70,000	$70-100,000	$100-120,000	$120-150,000	$150,000+	Total
One Person household	4,510	1,700	970	500	90	10	50	7,830
Couple household	530	1,930	1,690	1,900	1,190	980	1,230	9,450
2 Parents 1-2 children	160	370	700	1,410	880	910	1,360	5,790
2 Parents 3+ children	60	130	280	450	270	270	450	1,910
1 Parent Family	1,430	1,110	880	680	250	80	100	4,530
Multi-family household	10	60	70	160	100	170	380	950
Non-family household	40	210	200	210	100	60	80	900
Total Households	6,740	5,500	4,780	5,300	2,870	2,490	3,650	31,330
One Person household	14.4%	5.4%	3.1%	1.6%	0.3%	0.0%	0.2%	25.0%
Couple household	1.7%	6.2%	5.4%	6.1%	3.8%	3.1%	3.9%	30.2%
2 Parents 1-2 children	0.5%	1.2%	2.2%	4.5%	2.8%	2.9%	4.3%	18.5%
2 Parents 3+ children	0.2%	0.4%	0.9%	1.4%	0.9%	0.9%	1.4%	6.1%
1 Parent Family	4.6%	3.5%	2.8%	2.2%	0.8%	0.3%	0.3%	14.5%
Multi-family household	0.0%	0.2%	0.2%	0.5%	0.3%	0.5%	1.2%	3.0%
Non-family household	0.1%	0.7%	0.6%	0.7%	0.3%	0.2%	0.3%	2.9%
Total Households	21.5%	17.6%	15.3%	16.9%	9.2%	7.9%	11.7%	100.0%
Relative Concentration								
One Person household	**2.68**	**1.24**	0.81	0.38	0.13	0.02	0.05	
Couple household	0.26	**1.16**	**1.17**	**1.19**	**1.37**	**1.30**	**1.12**	
2 Parents 1-2 children	0.13	0.36	0.79	**1.44**	**1.66**	**1.98**	**2.02**	
2 Parents 3+ children	0.15	0.39	0.96	**1.39**	**1.54**	**1.78**	**2.02**	
1 Parent Family	**1.47**	**1.40**	**1.27**	0.89	0.60	0.22	0.19	
Multi-family household	0.05	0.36	0.48	**1.00**	**1.15**	**2.25**	**3.43**	
Non-family household	0.21	**1.33**	**1.46**	**1.38**	**1.21**	0.84	0.76	

Source: ME Housing Demand Model 2021

The concentration of household types within income bands can be seen with both one person and 1 parent households having high representation in the lowest income bands. This is expected to some degree, as these households are supported by the income of one person. Generally, couple and 2 parent family households have two income earners and as a result they have relative concentrations in higher income bands. Multi-family households are overrepresented in the highest two income bands, which could be expected as they generally are larger households. Non-family Households are somewhat evenly distributed across the income bands, with slightly higher proportions in the middle bands.

The Napier-Hastings areas are both characterised by relatively low-income levels when compared against the NZ average. This will have implications for housing affordability as well as other social metrics.

2.2.2 Household Type and Age

The second socio-demographic metric that is considered is age. There are limitations to reporting a household's age. For example, if a household has multiple individuals (members), then which member's age

is used? Nevertheless, this analysis relies on Census and StatsNZ data, and consequently, the age of the reference person is used as a proxy for household age.

Napier City

Table 2-5 shows the age distribution of household types for Napier City in 2020. The age distribution shows that smaller households are relatively overrepresented in the older age cohorts, especially the +65-year cohorts. More than half (55%) of one person households are +65 years. Viewed together with the low-income levels of this group, highlights the linkages between this cohort and the elderly community. Recall that over half of one person households earn less than $30,000 per year. Another aspect to consider is that a portion of these households might be constrained in terms of incomes, but they might be on a relatively strong position from an asset perspective (i.e., own a home). Put differently, this relates to households that are 'cash poor, but asset rich'.

Table 2-5: Count of Households by Type and Age – Napier City, 2020

Household Type	15-29	30-39	40-49	50-64	65-74	75+	Total
One Person household	230	400	670	2,100	1,850	2,350	7,600
Couple household	570	430	530	2,790	2,460	1,470	8,250
2 Parents 1-2 children	510	1,180	1,310	1,130	170	40	4,340
2 Parents 3+ children	80	420	490	120	-	-	1,110
1 Parent Family	440	780	1,070	980	200	150	3,620
Multi-family household	100	70	120	240	70	-	600
Non-family household	240	100	90	270	120	80	900
Total Households	2,170	3,380	4,280	7,630	4,870	4,090	26,420
One Person household	0.9%	1.5%	2.5%	7.9%	7.0%	8.9%	28.8%
Couple household	2.2%	1.6%	2.0%	10.6%	9.3%	5.6%	31.2%
2 Parents 1-2 children	1.9%	4.5%	5.0%	4.3%	0.6%	0.2%	16.4%
2 Parents 3+ children	0.3%	1.6%	1.9%	0.5%	0.0%	0.0%	4.2%
1 Parent Family	1.7%	3.0%	4.0%	3.7%	0.8%	0.6%	13.7%
Multi-family household	0.4%	0.3%	0.5%	0.9%	0.3%	0.0%	2.3%
Non-family household	0.9%	0.4%	0.3%	1.0%	0.5%	0.3%	3.4%
Total Households	8.2%	12.8%	16.2%	28.9%	18.4%	15.5%	100.0%
Relative Concentration							
One Person household	0.37	0.41	0.54	0.96	**1.32**	**2.00**	
Couple household	0.84	0.41	0.40	**1.17**	**1.62**	**1.15**	
2 Parents 1-2 children	**1.43**	**2.13**	**1.86**	0.90	0.21	0.06	
2 Parents 3+ children	0.88	**2.96**	**2.72**	0.37	-	-	
1 Parent Family	**1.48**	**1.68**	**1.82**	0.94	0.30	0.27	
Multi-family household	**2.03**	0.91	**1.23**	**1.39**	0.63	-	
Non-family household	**3.25**	0.87	0.62	**1.04**	0.72	0.57	

Source: ME Housing Demand Model 2021

Generally, couple households have a slightly younger age profile with a portion falling into the 50-64 year cohort. Couple households appear to be concentrated around the 50-74 year age-cohorts with 64% of these households falling in this age range. The data supports this observation with 2-parent families, as well as 1-parent families concentrated in the 30-49 year cohorts. These age cohorts align with families with children. Overall, these patterns align well with life-stages. Over time, families with children transition to 'empty nester' as the children leave home and the parents become 'couple-households' and singles later in life.

At a total, city-wide level, the distribution of households is skewed towards the higher age cohorts, with slightly more (63%) over 50 years. In terms of the individual age cohorts:

- 50-64 and 65-74 are the largest at 29% and 18% of all households,
- 15 - 29 and 30-39 are the smallest, representing 8% and 13% of all households.

- Family households are associated with the younger cohorts and are represented in the sub-49 age cohorts. Almost a quarter of all households are classified as family households that are in the sub-45 year cohorts. This segment is an important driver of the larger dwelling types.

That said, **affordability often becomes progressively more important for non-owner households in the middle and later years, as remaining lifetime earning potential reduces, and ability to access housing finance also reduces.**

Hastings District

Table 2-6 shows how Hastings' households are distributed across age cohorts. Overall, the distribution patterns match those identified in Napier.

Table 2-6: Count of Households by Type and Age - Hastings District, 2020

Household Type	15-29	30-39	40-49	50-64	65-74	75+	Total
One Person household	270	400	680	2,300	1,860	2,340	7,850
Couple household	640	530	590	3,450	2,690	1,550	9,450
2 Parents 1-2 children	670	1,400	1,740	1,640	310	30	5,790
2 Parents 3+ children	130	720	820	230	-	-	1,900
1 Parent Family	660	970	1,280	1,200	240	180	4,530
Multi-family household	140	130	190	370	120	-	950
Non-family household	220	90	90	280	110	90	880
Total Households	2,730	4,240	5,390	9,470	5,330	4,190	31,350
One Person household	0.9%	1.3%	2.2%	7.3%	5.9%	7.5%	25.0%
Couple household	2.0%	1.7%	1.9%	11.0%	8.6%	4.9%	30.1%
2 Parents 1-2 children	2.1%	4.5%	5.6%	5.2%	1.0%	0.1%	18.5%
2 Parents 3+ children	0.4%	2.3%	2.6%	0.7%	0.0%	0.0%	6.1%
1 Parent Family	2.1%	3.1%	4.1%	3.8%	0.8%	0.6%	14.4%
Multi-family household	0.4%	0.4%	0.6%	1.2%	0.4%	0.0%	3.0%
Non-family household	0.7%	0.3%	0.3%	0.9%	0.4%	0.3%	2.8%
Total Households	8.7%	13.5%	17.2%	30.2%	17.0%	13.4%	100.0%
Relative Concentration							
One Person household	0.39	0.38	0.50	0.97	**1.39**	**2.23**	
Couple household	0.78	0.41	0.36	**1.21**	**1.67**	**1.23**	
2 Parents 1-2 children	**1.33**	**1.79**	**1.75**	0.94	0.31	0.04	
2 Parents 3+ children	0.79	**2.80**	**2.51**	0.40	-	-	
1 Parent Family	**1.67**	**1.58**	**1.64**	0.88	0.31	0.30	
Multi-family household	**1.69**	**1.01**	**1.16**	**1.29**	0.74	-	
Non-family household	**2.87**	0.76	0.59	**1.05**	0.74	0.77	

Source: ME Housing Demand Model 2021

The age distribution shows that smaller households have disproportionately higher shares of households in the older age cohorts, especially for the cohorts over 65 years. More than half (54%) of one person households are +65 years of age, while 56% of households over 75 years are one person households.

When viewed in conjunction with the low-income levels of this household type, the linkages between this cohort and the elderly community are highlighted again. The majority of one person households earn less than $30,000 per year. **Another aspect to consider is that a portion of these households might be constrained in terms of incomes, but they might be on a relatively strong position from an asset perspective (i.e., own a home)**

The age distribution of couple households have a slightly younger age profile. These households appear to be concentrated around the 50-74 year age-cohort. The data supports this observation with 2-parent families, as well as 1-parent families over-represented in the cohorts for <49 year cohorts. These are mostly the age groups of people with children. Overall, these patterns align well with life-stages (as explained above).

At a total, Hastings-wide level, the household distribution is skewed towards the higher age cohorts, with 61% of households relating to people +50 years. At an individual cohort level, 50-64 and 40-49 are the largest at 30.2% and 17.2% of all households, each. On the other hand, 15-29 and 75+ are the smallest, at 8.7% and 13.4% of all households.

2.2.3 Household Type and Ethnicity

Ethnicity is the third attribute that is discussed[24]. It provides useful insights into the mix of households and the general size of different ethnic groupings in the wider study area.

Napier City

Table 2-7 provides the base information for Napier regarding the ethnic mix of households. Households identifying as European account for the highest share of households. These households account for 80% (four in five) of all households. This is followed by:

- Māori 14%,
- Asian and 4%,
- Pacific 2%.

Table 2-7: Counts of Households grouped by Type and Ethnicity - Napier City, 2020

Household Type	European	Māori	Pacific	Asian	Total
One Person household	6,420	790	120	270	7,600
Couple household	6,810	970	150	310	8,240
2 Parents 1-2 children	3,180	790	140	240	4,350
2 Parents 3+ children	790	210	40	70	1,110
1 Parent Family	2,690	630	110	190	3,620
Multi-family household	450	100	20	30	600
Non-family household	680	150	20	40	890
Total Households	21,020	3,640	600	1,150	26,400
One Person household	24.3%	3.0%	0.5%	1.0%	28.8%
Couple household	25.8%	3.7%	0.6%	1.2%	31.2%
2 Parents 1-2 children	12.0%	3.0%	0.5%	0.9%	16.5%
2 Parents 3+ children	3.0%	0.8%	0.2%	0.3%	4.2%
1 Parent Family	10.2%	2.4%	0.4%	0.7%	13.7%
Multi-family household	1.7%	0.4%	0.1%	0.1%	2.3%
Non-family household	2.6%	0.6%	0.1%	0.2%	3.4%
Total Households	79.6%	13.8%	2.3%	4.4%	100.0%
Relative Concentration					
One Person household	**1.06**	0.75	0.69	0.82	
Couple household	**1.04**	0.85	0.80	0.86	
2 Parents 1-2 children	0.92	**1.32**	**1.42**	**1.27**	
2 Parents 3+ children	0.89	**1.37**	**1.59**	**1.45**	
1 Parent Family	0.93	**1.26**	**1.34**	**1.20**	
Multi-family household	0.94	**1.21**	**1.47**	**1.15**	
Non-family household	0.96	**1.22**	**0.99**	**1.03**	

Source: ME Housing Demand Model 2021 *(note European includes other ethnicities)*

The household patterns suggest that:

[24] The discussions on ethnicity use slightly different approaches and the datasets do not triangulate perfectly. Therefore, there are slight variances between the different tables as reported here.

- European households are concentrated in smaller household types (one person and couple household types). These households account for **50% of all the households**.
- The larger European households (families and non-families), represent 30% of the households
- The larger household types are concentrated in households identifying as Māori, Pacific, and Asian ethnicity. These households account for 10% of all the households in Napier.
- Small households (couples and one-person households) identifying as Māori, Pacific, and Asian, account for 10% of households.

Hastings District

Table 2-8 shows a breakdown of households by ethnicity in Hastings in 2020. Compared with Napier, Hastings has a lower share of European households, and consequently, a higher proportion of households identifying with Māori, Pacific, and Asian ethnicities. The respective figures are:

- 73% for European households show slightly higher concentration in one person and couple households.
- Māori (17%), Pacific (4%) and Asian (6%), are relatively concentrated in the larger household types of parent(s) with children, multi-family, and non-family.

Table 2-8: Count of Households grouped by Type and Ethnicity - Hastings District, 2020

Household Type	European	Māori	Pacific	Asian	Total
One Person household	6,210	1,010	240	370	7,830
Couple household	7,260	1,390	330	460	9,440
2 Parents 1-2 children	3,870	1,200	320	400	5,790
2 Parents 3+ children	1,230	410	120	150	1,910
1 Parent Family	3,040	930	250	300	4,520
Multi-family household	650	190	50	60	950
Non-family household	620	170	40	50	880
Total Households	22,880	5,300	1,350	1,790	31,300
One Person household	19.8%	3.2%	0.8%	1.2%	25.0%
Couple household	23.2%	4.4%	1.1%	1.5%	30.2%
2 Parents 1-2 children	12.4%	3.8%	1.0%	1.3%	18.5%
2 Parents 3+ children	3.9%	1.3%	0.4%	0.5%	6.1%
1 Parent Family	9.7%	3.0%	0.8%	1.0%	14.4%
Multi-family household	2.1%	0.6%	0.2%	0.2%	3.0%
Non-family household	2.0%	0.5%	0.1%	0.2%	2.8%
Total Households	73.1%	16.9%	4.3%	5.7%	100.0%
Relative Concentration					
One Person household	**1.08**	0.76	0.71	0.83	
Couple household	**1.05**	0.87	0.81	0.85	
2 Parents 1-2 children	0.91	**1.22**	**1.28**	**1.21**	
2 Parents 3+ children	0.88	**1.27**	**1.46**	**1.37**	
1 Parent Family	0.92	**1.22**	**1.28**	**1.16**	
Multi-family household	0.94	**1.18**	**1.22**	**1.10**	
Non-family household	0.96	**1.14**	**1.05**	**0.99**	

Source: ME Housing Demand Model 2021 *(note European includes other ethnicities)*

In terms of the number (count) of households, underlining feature is the relative size of European households. For every Māori household, there are 4.3 European households. This ratio increases substantially when considering the other ethnicities:

- One Māori household for every 4.3 European households,
- One Pacific household for every 17 European households, and
- One Asian household for every 13 European households.

Notwithstanding these high ratios, it is important to note that the non-European households tend to be overrepresented in poverty, overcrowding and social deprivation indices. Therefore, while the overall share of total households might be small, the needs and pressure are concentrated in these households. These matters must be considered in wider activities.

2.3 Household growth – Base outlook (Medium-high)

The outlook for household numbers is based on the StatsNZ's population projections. Based on the Councils' inputs during the modelling and analysis stages, the household growth estimates are based on the StatsNZ's medium-high scenario. This position is based on recent observations and a preference (by Napier City Council) to plan for slightly higher rate of growth because the thinking is that it is 'easier to slow down than to speed up' and to be aspirational in encouraging people to the Napier to live. We understand that the earlier work by the Councils has used growth rates that have tended to fall between StatsNZ's medium and high projections to ensure an adequate supply of housing in all instances irrespective of short term trends. Therefore, the average between these two growth projections is used to inform that base growth outlook. The high scenario is used as the upper limit for growth (and this is discussed in section 2.5). The medium-high projections were set as the base and reflects the expectation and recently observed patterns (at the Council level) that the growth trends will retain the relationship with StatsNZ estimates (and fall between the medium and the high scenarios).

The base outlook is described in terms of the anticipated shift in household numbers as well as the implied changes in the demographic structures.

2.3.1 Household growth outlook

The growth outlooks for both Napier and Hastings are reported below. The focus is on the base outlook, but the high growth figures are also reported to provide the potential upper limit of growth.

Napier City

In Napier City it is estimated that there are 26,400 households in 2020, an increase of 600 since 2018. Based on StatsNZ's projections (see Table 2-9), the households are expected to continue to grow over the next thirty years.

Table 2-9: Household Growth Outlook Medium and High Futures - Napier City

Future	2020	2023	2028	2030	2033	2038	2043	2048	2050
Medium-High Growth	26,400	27,400	28,600	29,100	29,700	30,700	31,500	32,300	32,600
High Growth	26,800	27,900	29,400	29,900	30,800	32,000	33,100	34,200	34,600
Change Medium-High Growth		1,000	2,200	2,700	3,300	4,300	5,100	5,900	6,200
Change High Growth		1,100	2,600	3,100	4,000	5,200	6,300	7,400	7,800

The compounded growth rate over the long term is estimated at 0.71% p.a. from 2020 to 2050. But the rate of growth is expected to vary over time, declining over the long term. Under the medium-high scenario, households will grow as follows:

- 2020 26,400,
- 2023 27,400 (+1,000),
- 2030 29,100 (+1,700 vs 2023),
- 2050 32,600 (+3,500 vs 2030).

By 2050, the number of households in Napier City is projected to be in the order of 32,600 – up 23% from current levels. The annual rate of change is expected to slow over the long term. Over the short term, the annual growth in households is expected to be around 330/year. For the period between 2023-2030, the annual change is estimated at 240. Over the long term (2030-2050), the annual change then drops further to 175 (over the period, but 150/year between 2048-2050).

The differences between the medium-high and high growth pathways are highlighted below. The high growth pathway will see the number of households reach 34,200 in 2050. This is 1,600 households more than the medium-high growth projection. As expected, the high growth pathway is consistently above the medium-high. After adjusting for the slightly different starting values (at 2020), the differences over time are (medium-high vs the high pathways):

- 2023 0.3%,
- 2030 1.2%, and
- 2050 4.6%.

It will be important to track the growth patterns that manifest and respond accordingly if higher growth materialises. This will be especially important over the medium to long term because the differences amplify over time.

Hastings District

The StatsNZ population projections suggest that there are an estimated 31,300 households in Hastings District, an increase of 1,000 households since 2018. Under the high growth pathway, the number of households could be in the order of 31,700. Table 2-10 shows the medium-high and high growth household projections for selected years out to 2050.

Table 2-10: Household Growth Outlook Medium and High Futures - Hastings District

Future	2020	2023	2028	2030	2033	2038	2043	2048	2050
Medium-High Growth	31,300	32,900	34,900	35,700	36,800	38,500	40,100	41,700	42,300
High Growth	31,700	33,500	35,700	36,600	38,000	40,000	42,000	43,900	44,700
Change Medium-High Growth		1,600	3,600	4,400	5,500	7,200	8,800	10,400	11,000
Change High Growth		1,800	4,000	4,900	6,300	8,300	10,300	12,200	13,000

Under medium-high growth, the number of households will continue to grow over the next thirty years with a compounded growth rate of 1.0% p.a. Under the medium-high outlook, households are expected to grow as follows:

- 2020 31,300,
- 2023 32,900 (+1,600),
- 2030 35,700 (+2,800), and
- 2050 42,300 (+6,600).

By 2050, the number of households in Hastings District is projected to be in the order of 42,300– up 35% from current levels, for an overall increase of 11,000 households. The growth is expected to follow a downward curve, i.e., slowing over time. But the growth will remain positive (expanding). Over the short term, the change is expected to amount to 530/year (2020-2023), decreasing to 400/year over the 2023-2030 period and then slowing further to 300/year by 2050. Clearly, the long-term outlook shows lower growth, but the strong short-term impulse and current trends need to be considered, because these short term pressures must be responded to.

Under the high growth projections, the number of households will reach 44,700 by 2050. The high growth projections have a compounded growth rate of 1.15% p.a. from 2020 to 2050, and an increase of 41% or 13,000 households over the thirty-year period. This is 2,400 greater than medium-high growth projections. The difference between the medium-high and the high growth pathways (adjusted) are 0.5% over the short term (200 households), before increasing to 4.4% by 2050 – equal to 2000 households.

2.3.2 Demography and income shifts

Over time, the demographic attributes and patterns will change. The change is driven by internal forces, like the ageing population, as well as wider dynamics, like New Zealand's migration policies. Using the available projections and datasets from StatsNZs, the future profiles for Napier and Hastings' households are presented. The preceding section presented the overall change and this section supplements that by presenting the anticipated demographic shifts as well as the associated changes in income levels (by households).

Napier City – household types

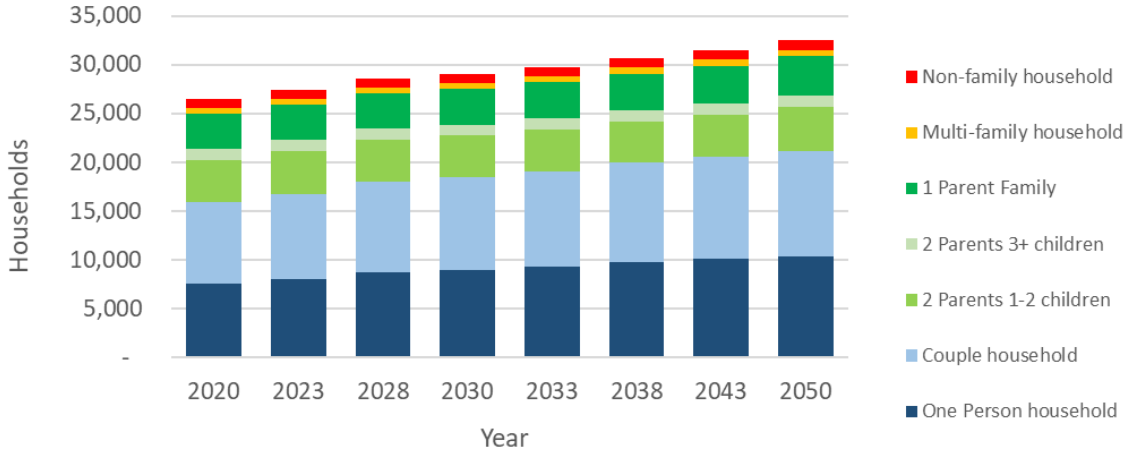
The change in the households (by type) is shown in Table 2-11. This table shows the shifts using the medium-high pathway and over different time periods. Figure 2-1 shows the growth graphically.

Table 2-11: Napier - Growth Outlook by Household Type

Household Type	Current	Short Term			Medium Term			Long Term		
	2020	2023	2020-23	2020-23 %	2030	2020-30	2020-30 %	2050	2020-50	2020-50 %
One Person household	7,600	8,050	450	6%	8,980	1,380	18%	10,390	2,790	37%
Couple household	8,250	8,710	460	6%	9,500	1,250	15%	10,800	2,550	31%
2 Parents 1-2 children	4,350	4,390	40	1%	4,270	-80	-2%	4,530	180	4%
2 Parents 3+ children	1,110	1,110	-	0%	1,080	-30	-3%	1,140	30	3%
1 Parent Family	3,620	3,640	20	1%	3,700	80	2%	4,030	410	11%
Multi-family household	600	600	-	0%	610	10	2%	630	30	5%
Non-family household	900	910	10	1%	930	30	3%	1,030	130	14%
Total	26,400	27,400	1,000	4%	29,100	2,700	10%	32,600	6,200	23%

Source: ME Housing Demand Model 2021

Figure 2-1: Projected Households Napier City (Medium-high)



Looking forward, the medium-high growth future points to ongoing shifts in the household mix towards smaller households. One person and couple household types feature strongly in the growth pattern over the next thirty years. These two household types are expected to grow by 37% and 29%, respectively. Combined, these two household types dominate the growth profile. Between 2020 and 2023, the number of households in Napier are expected to grow by around 1,000 households. Ninety one percent (91%) of this growth is expected in one-person and couple households. Over the medium term (2023-2030), the growth is expected to moderate somewhat but the smaller households are expected to remain at the centre of the growth.

In absolute terms, the shift in smaller households is estimated at:

- 2,790 for one person households, and
- 2,550 couple households.

Clearly, this points to a marked shift in the housing market, and the typologies that would be required to accommodate residents. **The link to the ageing population is underlined by the above analysis.**

Hastings – household types

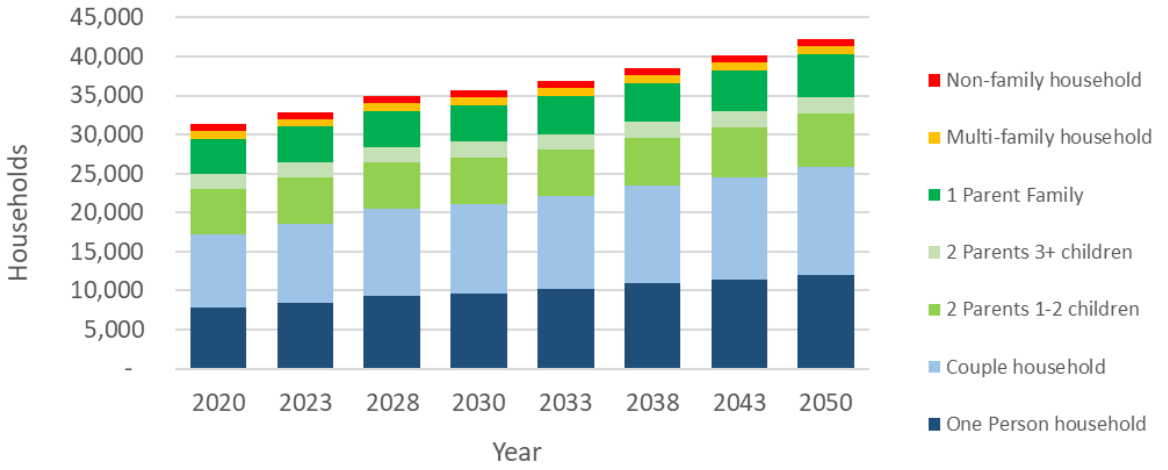
The household growth and the shift in the overall structure are shown in Table 2-12, while Figure 2-2 shows the growth outlooks by household type.

Table 2-12: Hastings – Growth outlooks by household type

Household Type	Current	Short Term			Medium Term			Long Term		
	2020	2023	2020-23	2020-23 %	2030	2020-30	2020-30 %	2050	2020-50	2020-50 %
One Person household	7,830	8,380	550	7%	9,680	1,850	24%	12,070	4,240	54%
Couple household	9,450	10,200	750	8%	11,410	1,960	21%	13,760	4,310	46%
2 Parents 1-2 children	5,790	5,890	100	2%	5,990	200	3%	6,800	1,010	17%
2 Parents 3+ children	1,900	1,930	30	2%	1,980	80	4%	2,230	330	17%
1 Parent Family	4,530	4,640	110	2%	4,750	220	5%	5,370	840	19%
Multi-family household	940	970	30	3%	1,000	60	6%	1,110	170	18%
Non-family household	890	910	20	2%	840	-50	-6%	960	70	8%
Total	31,300	32,900	1,600	5%	35,700	4,400	14%	42,300	11,000	35%

Source: ME Housing Demand Model 2021

Figure 2-2: Projected Households Hastings District (Medium-high)



The key observations about the expected patterns for Hastings' households in terms of household types are:

- One person and couple households feature prominently in the growth projections across the next thirty years, growing by 54% and 46%, respectively. Combined, these households account for 78% of the growth over the long term, adding 4,240 and 4,310 households each (over the 2020-2050 timeframe). The two household types, account for 81% of short-term growth, 87% of medium-term growth and 78% of long-term growth.
- The other household types are expected to remain important parts of the overall household landscape. While considerably smaller in percentage terms, down from 40% of households in 2023, to 35% in 2050. These households are normally associated with larger dwellings and, despite declining as a share of the total, are expected to grow by 1,320.

The ageing population and the shift to smaller households is expected to filter through into the demand for dwellings, especially the housing typology.

Napier – Shift in household types by income bands

As discussed in section 2.2.1, the households have different income levels, and they can be grouped into different income bands. Table 2-13 shows the modelled change in relation to households by income bands for Napier City between 2020 and 2050. Different timeframes are reported.

The analysis suggests that household growth over the short, medium, and long term is skewed towards the lower income bands. The three bands representing household incomes less than $70,000 feature prominently in the growth outlook for the next thirty years. These three household income bands account for:

- 73% of short-term growth,
- 86% of medium-term growth, and
- 80% of long-term growth.

Households with incomes under $30,000 account for the largest proportion of growth, rising by 38% to 2050. This growth is equal to an increase of 2,430 households (in this income band). A similar level of growth is seen in the next income band ($30,000-$50,000) with this band growing by 1,720 households over the long term, representing a 34% increase from 2020.

Table 2-13: Household Growth Outlook by Income - Short, Medium and Long Term (Medium-High Future) - Napier City

Household Income Band	Current	Short Term			Medium Term			Long Term		
	2020	2023	2020-23	2020-23 %	2030	2020-30	2020-30 %	2050	2020-50	2020-50 %
Under $30,000	6,410	6,760	350	5%	7,560	1,150	18%	8,840	2,430	38%
$30-50,000	4,990	5,240	250	5%	5,780	790	16%	6,710	1,720	34%
$50-70,000	3,930	4,060	130	3%	4,300	370	9%	4,720	790	20%
$70-100,000	4,190	4,310	120	3%	4,390	200	5%	4,640	450	11%
$100-120,000	2,310	2,350	40	2%	2,370	60	3%	2,480	170	7%
$120-150,000	1,970	2,010	40	2%	2,010	40	2%	2,090	120	6%
$150,000+	2,620	2,670	50	2%	2,660	40	2%	2,770	150	6%
Total	26,400	27,400	1,000	4%	29,100	2,700	10%	32,600	6,200	23%

Source: ME Housing Demand Model 2021

Hastings – Shift in household types by income bands

The change in the number of households by household income is shown in Table 2-14 for Hastings District between 2020 and 2050. Again, the growth is skewed towards the lowest income bands. The three bands representing household incomes less than $70,000 feature prominently in the growth projections across the next thirty years. The three household income bands account for 66% of short-term growth, 73% of medium-term growth and 71% of long-term growth. Household incomes under $30,000 account for the largest proportion of growth, rising by 55% to 2050, through the addition of 3,700 households.

Table 2-14: Household Growth Outlook by Income - Short, Medium and Long Term (Medium-High Future) - Hastings District

Household Income Band	Current	Short Term			Medium Term			Long Term		
	2020	2023	2020-23	2020-23 %	2030	2020-30	2020-30 %	2050	2020-50	2020-50 %
Under $30,000	6,740	7,190	450	7%	8,280	1,540	23%	10,440	3,700	55%
$30-50,000	5,500	5,850	350	6%	6,560	1,060	19%	8,070	2,570	47%
$50-70,000	4,780	5,030	250	5%	5,410	630	13%	6,330	1,550	32%
$70-100,000	5,300	5,540	240	5%	5,800	500	9%	6,590	1,290	24%
$100-120,000	2,870	2,970	100	3%	3,090	220	8%	3,460	590	21%
$120-150,000	2,490	2,580	90	4%	2,660	170	7%	3,020	530	21%
$150,000+	3,650	3,760	110	3%	3,860	210	6%	4,400	750	21%
Total	31,300	32,900	1,600	5%	35,700	4,400	14%	42,300	11,000	35%

Source: ME Housing Demand Model 2021

2.4 Revealed household-dwelling patterns

Housing demand patterns, as currently revealed, provide a useful foundation for estimating future demand (dwelling) patterns. The links between tenure, household types, income levels and ethnicity can be used to inform future demand patterns. That is, by assuming that the relationships between these elements hold constant, and then applying the relationships to projected (future) households, provides a way to estimate future dwelling demand.

2.4.1 Dwelling Patterns 2018

Housing data from the 2018 Census provides useful information (summarised in Table 2-15 and Table 2-16) regarding dwelling occupancy. The tables show the data for Napier City and Hastings District. According to StatsNZ definitions of occupancy status, unoccupied baches or holiday homes are also defined as empty dwellings.

Table 2-15: Housing Supply Situation at Census 2018 - Napier City

Census 2018	Private Dwellings	Private Dwellings %	*NZ Average*	Non-Private Dwellings	Non-Private Dwellings %	*NZ Average*	Total Dwellings	Total Dwellings %	*NZ Average*
Private Dwellings	25,287	100%		153	100%		25,440	100%	
Occupied	23,781	94%	*89%*	129	84%	*66%*	23,910	94%	*89%*
Unoccupied	1,431	6%	*10%*	24	16%	*33%*	1,458	6%	*10%*
Owners Away	885	3%	*5%*	9	6%	*8%*	891	4%	*5%*
Empty Dwelling	549	2%	*5%*	15	10%	*25%*	564	2%	*5%*
Under Construction	75	0%	*1%*	-	0%	*1%*	75	0%	*1%*
Usually Occupied	24,666	98%	*94%*	138	90%	*74%*	24,801	97%	*94%*
Usually Unoccupied	621	2%	*6%*	15	10%	*26%*	639	3%	*6%*
Compare Resident Households (2018)							25,760		
Difference (n)							959		
Difference %							3.9%		

Source: Census 2018

The Napier data suggest that there are 25,440 dwellings within the area in 2018. Of the total dwellings, most (94%) were recorded as occupied at Census 2018, with another 4% indicated as residents being temporarily absent. Empty dwellings account for around 2% of Napier's dwellings. The proportions for Napier return a higher proportion of occupancy than the national average of 89%. The presence of non-private dwellings in Napier is very small (<1%).

Table 2-16 shows similar information for the Hastings district. Of the private dwellings most (93%) were recorded as occupied at Census 2018, with 4% (1,120 dwellings) indicated as residents being temporarily absent. The share of occupied dwellings is somewhat higher than the national average (89%), and also slightly lower than in Napier (94%). Up to 4% of dwellings in Hastings were not usually occupied (empty dwellings plus dwellings under construction). Empty dwellings account for 3% (1,060 dwellings) of private dwellings, which is lower than the national average (5%). The presence of non-private dwellings is very small (1%).

Table 2-16: Housing Supply Situation at Census 2018 - Hastings District

Census 2018	Private Dwellings	Private Dwellings %	*NZ Average*	Non-Private Dwellings	Non-Private Dwellings %	*NZ Average*	Total Dwellings	Total Dwellings %	*NZ Average*
Private Dwellings	30,525	100%		345	100%		30,870	100%	
Occupied	28,263	93%	*89%*	216	63%	*66%*	28,482	92%	*89%*
Unoccupied	2,181	7%	*10%*	123	36%	*33%*	2,304	7%	*10%*
Owners Away	1,119	4%	*5%*	21	6%	*8%*	1,137	4%	*5%*
Empty Dwelling	1,062	3%	*5%*	102	30%	*25%*	1,167	4%	*5%*
Under Construction	81	0%	*1%*	3	1%	*1%*	84	0%	*1%*
Usually Occupied	29,382	96%	*94%*	237	69%	*74%*	29,619	96%	*94%*
Usually Unoccupied	1,143	4%	*6%*	108	32%	*26%*	1,251	4%	*6%*
Compare Resident Households (2018)							30,250		
Difference (n)							631		
Difference %							2.1%		

Studies by StatsNZ in some main cities have shown that commonly between 0.55 and 1.0% of dwellings are usually unoccupied, a smaller figure than the Census 2018 snapshot. The situation is complicated in large cities where tourism is an important part of the economy. These cities usually have an above-average share of holiday homes (that are often operated via platforms like AirBnB).

2.4.2 Household Type and Tenure 2020

Napier City

Table 2-17 shows the dwelling ownership and dwelling type by household type for Napier City in 2020. The split between owned and not owned across the district's housing estate is primarily owned, with available data suggesting that around 68% of the households living in owned houses, and 32% living in rented (not-owned) dwellings. On the other hand, dwelling type is significantly skewed towards detached dwellings at 84%, while attached dwellings only make 16% of all dwellings.

There is also a significant difference between the ownership rates of detached and attached dwellings. For detached dwellings, the ownership rate of 73% is greater than the overall rate of 68%. Meanwhile, attached dwellings have a significantly lower proportion of household ownership at 44% of households.

The split between detached and attached is relatively constant across the household types. There is a slight divergence with one-person households overrepresented in attached dwellings (compared to other households) with 32% of these households living in attached dwellings. In terms of ownership, couple and 2 parents 1-2 children households have the highest rates of ownership at 83% and 75%, respectively. On the other hand, 1 parent with children and non-family households have lowest ownership rates of 45% and 49%, respectively.

***Note**: The table shows the relative concentration i.e. a value >1 means the area has a relatively high concentration in that category. Using the row and heading combinations e.g. couple households owning detached dwellings (1.25 value) means that relative to other household types and tenure combinations across the area, this combination is relatively overrepresented. The size of the value is not important in this instance, the threshold is >1.*

Table 2-17: Household Types and Dwelling Tenure – Napier City, 2020

Household Type 2020	Owned or Trust			Not Owned[1]			Total		
	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total
One Person household	3,610	1,020	4,630	1,570	1,400	2,970	5,180	2,420	7,600
Couple household	6,300	570	6,870	990	380	1,370	7,290	950	8,240
2 Parents 1-2 children	3,090	160	3,250	910	180	1,090	4,000	340	4,340
2 Parents 3+ children	740	20	760	320	20	340	1,060	40	1,100
1 Parent Family	1,530	110	1,640	1,660	320	1,980	3,190	430	3,620
Multi-family household	390	20	410	170	10	180	560	30	590
Non-family household	420	20	440	420	40	460	840	60	900
Total Households	16,100	1,900	18,000	6,000	2,400	8,400	22,100	4,300	26,400
One Person household	14%	4%	18%	6%	5%	11%	20%	9%	29%
Couple household	24%	2%	26%	4%	1%	5%	28%	4%	31%
2 Parents 1-2 children	12%	1%	12%	3%	1%	4%	15%	1%	16%
2 Parents 3+ children	3%	0%	3%	1%	0%	1%	4%	0%	4%
1 Parent Family	6%	0%	6%	6%	1%	8%	12%	2%	14%
Multi-family household	1%	0%	2%	1%	0%	1%	2%	0%	2%
Non-family household	2%	0%	2%	2%	0%	2%	3%	0%	3%
Total Households	61%	7%	68%	23%	9%	32%	84%	16%	100%
Relative Concentration									
One Person household	0.78	**1.86**	0.89	0.91	**2.03**	**1.23**	0.81	**1.95**	
Couple household	**1.25**	0.96	**1.22**	0.53	0.51	0.52	**1.06**	0.71	
2 Parents 1-2 children	**1.17**	0.51	**1.10**	0.92	0.46	0.79	**1.10**	0.48	
2 Parents 3+ children	**1.10**	0.25	**1.01**	**1.28**	0.20	0.97	**1.15**	0.22	
1 Parent Family	0.69	0.42	0.66	**2.02**	0.97	**1.72**	**1.05**	0.73	
Multi-family household	**1.08**	0.47	**1.02**	**1.27**	0.19	0.96	**1.13**	0.31	
Non-family household	0.77	0.31	0.72	**2.05**	0.49	**1.61**	**1.11**	0.41	

1 Not Owned includes NEI

Source: ME Housing Demand Model 2021

Hastings District

Table 2-18 shows the dwelling ownership and dwelling type by household type for Hastings in 2020. When compared with Napier, Hastings has similar proportions of detached dwellings (85%) and of dwelling ownership (68%). This also means lower proportions of attached dwellings (15%) and higher proportions of households which rent (32%). In terms of the ownership by dwelling type, detached dwellings are owned by 72% of their households, whereas only 48% of attached dwellings are owned.

The table shows differences in ownership and dwelling type across the household types. Couple households have a significantly higher proportion of ownership at 83%. On the other hand, one parent and non-family households have the lowest ownership proportions of 44% and 51%, respectively. One person households are overrepresented in attached dwellings with 30% of this household type lives in attached dwellings, or alternatively, 50% of all attached dwellings are occupied by this household type. The remainder of the household types are significantly skewed towards detached dwellings.

Table 2-18: Household Type and Dwelling Tenure - Hastings District, 2020

Household Type 2020	Owned or Trust			Not Owned[1]			Total		
	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total
One Person household	3,740	1,180	4,920	1,720	1,200	2,920	5,460	2,380	7,840
Couple household	7,190	620	7,810	1,180	460	1,640	8,370	1,080	9,450
2 Parents 1-2 children	3,970	280	4,250	1,290	240	1,530	5,260	520	5,780
2 Parents 3+ children	1,220	40	1,260	610	40	650	1,830	80	1,910
1 Parent Family	1,820	150	1,970	2,130	420	2,550	3,950	570	4,520
Multi-family household	610	10	620	280	30	310	890	40	930
Non-family household	410	40	450	360	70	430	770	110	880
Total Households	19,000	2,300	21,300	7,600	2,500	10,000	26,500	4,800	31,300
One Person household	12%	4%	16%	5%	4%	9%	17%	8%	25%
Couple household	23%	2%	25%	4%	1%	5%	27%	3%	30%
2 Parents 1-2 children	13%	1%	14%	4%	1%	5%	17%	2%	18%
2 Parents 3+ children	4%	0%	4%	2%	0%	2%	6%	0%	6%
1 Parent Family	6%	0%	6%	7%	1%	8%	13%	2%	14%
Multi-family household	2%	0%	2%	1%	0%	1%	3%	0%	3%
Non-family household	1%	0%	1%	1%	0%	1%	2%	0%	3%
Total Households	61%	7%	68%	24%	8%	32%	85%	15%	100%
Relative Concentration									
One Person household	0.79	**2.05**	0.92	0.90	**1.92**	**1.17**	0.82	**1.98**	
Couple household	**1.25**	0.89	**1.21**	0.51	0.61	0.54	**1.05**	0.75	
2 Parents 1-2 children	**1.13**	0.66	**1.08**	0.92	0.52	0.83	**1.07**	0.59	
2 Parents 3+ children	**1.05**	0.28	0.97	**1.32**	0.26	**1.07**	**1.13**	0.27	
1 Parent Family	0.66	0.45	0.64	**1.94**	**1.16**	**1.77**	**1.03**	0.82	
Multi-family household	**1.08**	0.15	0.98	**1.24**	0.40	**1.04**	**1.13**	0.28	
Non-family household	0.77	0.62	0.75	**1.68**	**1.00**	**1.53**	**1.03**	0.82	

1 Not Owned includes NEI

Source: ME Housing Demand Model 2021

2.4.3 Household Income and Tenure 2020

Napier City

Table 2-19 shows the distribution of household income bands by dwelling tenure for Napier in 2020. As expected, there is a positive relationship between household income band and the proportion of dwelling ownership. The income band for households with incomes under $30,000 has the lowest rate of ownership at 50%. The ownership proportions increase as household income increases, with 86% of households with incomes over $150,000 owning their dwelling. There is also a higher concentration of lower income households towards attached dwellings. The proportion of households living in attached dwellings decreases as household income increases. 30% of households with an income under $30,000 live in an attached dwelling, while the proportion for households with incomes over $150,000 is only 9%.

Hastings District

The following table shows the distribution of household income bands by dwelling tenure for Hastings in 2020. As expected, there is a positive relationship between household income band and the proportion of dwelling ownership. The income band for household income under $30,000 has the lowest ownership rate (51%). The ownership proportions increase as household income increases, with 86% of households with incomes over $150,000 owning their dwelling. There is also a high concentration of lower income households towards attached dwellings. The proportion of households living in attached dwellings decreases as household income increases. 29% of households with an income under $30,000 live in an attached dwelling, while the proportion for households with incomes over $150,000 is only 8%.

Table 2-19: Household Income and Dwelling Tenure - Napier City, 2020

Household Income	Owned or Trust			Not Owned[1]			Total		
	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total
Under $30,000	2,460	720	3,180	2,020	1,200	3,220	4,480	1,920	6,400
$30-50,000	2,890	400	3,290	1,180	510	1,690	4,070	910	4,980
$50-70,000	2,410	260	2,670	960	300	1,260	3,370	560	3,930
$70-100,000	2,940	200	3,140	900	150	1,050	3,840	350	4,190
$100-120,000	1,760	90	1,850	390	70	460	2,150	160	2,310
$120-150,000	1,540	80	1,620	320	50	370	1,860	130	1,990
$150,000+	2,100	150	2,250	280	90	370	2,380	240	2,620
Total Households	16,100	1,900	18,000	6,100	2,400	8,400	22,200	4,300	26,400
Under $30,000	9%	3%	12%	8%	5%	12%	17%	7%	24%
$30-50,000	11%	2%	12%	4%	2%	6%	15%	3%	19%
$50-70,000	9%	1%	10%	4%	1%	5%	13%	2%	15%
$70-100,000	11%	1%	12%	3%	1%	4%	15%	1%	16%
$100-120,000	7%	0%	7%	1%	0%	2%	8%	1%	9%
$120-150,000	6%	0%	6%	1%	0%	1%	7%	0%	8%
$150,000+	8%	1%	9%	1%	0%	1%	9%	1%	10%
Total Households	61%	7%	68%	23%	9%	32%	84%	16%	100%
Relative Concentration									
Under $30,000	0.63	**1.56**	0.73	**1.37**	**2.06**	**1.58**	0.83	**1.84**	
$30-50,000	0.95	**1.12**	0.97	**1.03**	**1.13**	**1.07**	0.97	**1.12**	
$50-70,000	**1.01**	0.92	**1.00**	**1.06**	0.84	**1.01**	**1.02**	0.87	
$70-100,000	**1.15**	0.66	**1.10**	0.93	0.39	0.79	**1.09**	0.51	
$100-120,000	**1.25**	0.54	**1.17**	0.73	0.33	0.63	**1.11**	0.43	
$120-150,000	**1.27**	0.56	**1.19**	0.70	0.28	0.58	**1.11**	0.40	
$150,000+	**1.31**	0.80	**1.26**	0.46	0.38	0.44	**1.08**	0.56	

1 Not Owned includes NEI

Source: ME Housing Demand Model 2021

Table 2-20: Household Income and Dwelling Tenure - Hastings District, 2020

Household Income	Owned or Trust			Not Owned[1]			Total		
	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total
Under $30,000	2,570	840	3,410	2,200	1,130	3,330	4,770	1,970	6,740
$30-50,000	2,950	550	3,500	1,470	540	2,010	4,420	1,090	5,510
$50-70,000	2,810	310	3,120	1,330	320	1,650	4,140	630	4,770
$70-100,000	3,620	220	3,840	1,240	220	1,460	4,860	440	5,300
$100-120,000	2,150	110	2,260	520	80	600	2,670	190	2,860
$120-150,000	1,920	100	2,020	410	70	480	2,330	170	2,500
$150,000+	2,950	180	3,130	420	100	520	3,370	280	3,650
Total Households	19,000	2,300	21,300	7,600	2,500	10,100	26,600	4,800	31,300
Under $30,000	8%	3%	11%	7%	4%	11%	15%	6%	22%
$30-50,000	9%	2%	11%	5%	2%	6%	14%	3%	18%
$50-70,000	9%	1%	10%	4%	1%	5%	13%	2%	15%
$70-100,000	12%	1%	12%	4%	1%	5%	16%	1%	17%
$100-120,000	7%	0%	7%	2%	0%	2%	9%	1%	9%
$120-150,000	6%	0%	6%	1%	0%	2%	7%	1%	8%
$150,000+	9%	1%	10%	1%	0%	2%	11%	1%	12%
Total Households	61%	7%	68%	24%	8%	32%	85%	15%	100%
Relative Concentration									
Under $30,000	0.63	**1.70**	0.74	**1.34**	**2.10**	**1.53**	0.83	**1.91**	
$30-50,000	0.88	**1.36**	0.93	**1.10**	**1.23**	**1.13**	0.94	**1.29**	
$50-70,000	0.97	0.88	0.96	**1.15**	0.84	**1.07**	**1.02**	0.86	
$70-100,000	**1.13**	0.56	**1.06**	0.96	0.52	0.85	**1.08**	0.54	
$100-120,000	**1.24**	0.52	**1.16**	0.75	0.35	0.65	**1.10**	0.43	
$120-150,000	**1.27**	0.54	**1.19**	0.68	0.35	0.60	**1.10**	0.44	
$150,000+	**1.33**	0.67	**1.26**	0.47	0.34	0.44	**1.09**	0.50	

1 Not Owned includes NEI

Source: ME Housing Demand Model 2021

2.4.4 Tenure and Dwelling Type by Ethnicity

The link between tenure and dwelling types by ethnicity is described below. We note that there are several limitations around the data used to estimate the linkages and relationships. For example, an individual can identify as multiple ethnicities, this means that the percentage ratios calculated from the data does not sum to 100%. M.E rebalanced the totals to sum to 100% in order to apply the estimated ratios to other datasets. This means that the different ratios and percentages show a small difference with other totals reported elsewhere. This is also the reason for the slight variation with the ethnicity breakdowns as presented in Section 2.2.3. The proprortional structure as revealed in the available data is used in assessing the forward looking patterns (in section 2.5). There are small differences in the overall totals, but these are within acceptable levels.

Napier City

Table 2-21 shows the distribution of household ethnicity by dwelling tenure for Napier in 2020. Households identifying with European ethnicity have higher than average dwelling ownership, at 73%, compared to the Napier average of 68%. The other Ethnicities have significantly lower than average ownership rates. Pacific households have the lowest ownership rate of 36%, while Māori (44%) and Asian (58%) have higher rates but these ethnicities are overrepresented as households who rent their dwelling.

When looking at the spread of ethnicities by dwelling type, European and Māori households appear to have dwelling type proportions close to the Napier average of 84% detached and 16% attached. Pacific and Asian households have higher proportions in detached dwellings at 95% and 90%, respectively.

Table 2-21: Household Ethnicity and Dwelling Tenure - Napier City, 2020

Household Ethnicity	Owned or Trust			Not Owned[1]			Total		
	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total
European	14,140	1,790	15,930	4,180	1,820	6,000	18,320	3,610	21,930
Māori	1,360	90	1,450	1,370	470	1,840	2,730	560	3,290
Pacific	140	-	140	230	20	250	370	20	390
Asian	450	20	470	280	60	340	730	80	810
Total	16,100	1,900	18,000	6,100	2,400	8,400	22,200	4,300	26,400
European	54%	7%	60%	16%	7%	23%	69%	14%	83%
Māori	5%	0%	5%	5%	2%	7%	10%	2%	12%
Pacific	1%	0%	1%	1%	0%	1%	1%	0%	1%
Asian	2%	0%	2%	1%	0%	1%	3%	0%	3%
Total	61%	7%	68%	23%	9%	32%	84%	16%	100%
Relative Concentration									
European	**1.06**	**1.13**	**1.07**	0.82	0.91	0.86	**0.99**	**1.01**	**1.00**
Māori	0.68	0.38	0.65	**1.80**	**1.57**	**1.76**	**0.99**	**1.05**	**1.00**
Pacific	0.59	-	0.53	**2.55**	0.56	**2.01**	**1.13**	0.31	**1.00**
Asian	0.91	0.34	0.85	**1.50**	0.81	**1.32**	**1.07**	0.61	**1.00**

1 Not Owned includes NEI

Source: ME Housing Demand Model 2021

Hastings District

Table 2-22 shows household ethnicity and dwelling tenure for Hastings in 2020. Households identifying with European ethnicity have higher than average dwelling ownership of 75%, compared to the overall Hastings average of 68%. The other Ethnicities have significantly lower than average ownership rates. Pacific

households have the lowest ownership rate of 34%, while Māori (43%) and Asian (52%) have higher rates but these ethnicities are significantly overrepresented as households who rent their dwelling.

When looking at the spread of ethnicities by dwelling type, most ethnicities appear to have dwelling type proportions very close to average. The only variation from this is Pacific households having higher proportions in detached dwellings at 92%, compared to the wider average of 85%. Detached dwellings have higher than average rates of ownership across all the ethnicities, with an average of 71% ownership. However, for attached dwellings, while European households (57%) have higher than average ownership for this dwelling type (48%), Māori (17%), Pacific (less than 1%), and Asian (20%) have significantly lower rates of dwelling ownership in attached dwellings.

Table 2-22: Household Ethnicity and Dwelling Tenure - Hastings District, 2020

Household Ethnicity	Owned or Trust			Not Owned[1]			Total		
	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total
European	16,060	2,150	18,210	4,390	1,650	6,040	20,450	3,800	24,250
Māori	2,060	130	2,190	2,250	620	2,870	4,310	750	5,060
Pacific	310	-	310	540	70	610	850	70	920
Asian	540	30	570	400	120	520	940	150	1,090
Total	19,000	2,300	21,300	7,600	2,500	10,000	26,600	4,800	31,300
European	51%	7%	58%	14%	5%	19%	65%	12%	77%
Māori	7%	0%	7%	7%	2%	9%	14%	2%	16%
Pacific	1%	0%	1%	2%	0%	2%	3%	0%	3%
Asian	2%	0%	2%	1%	0%	2%	3%	0%	3%
Total	61%	7%	68%	24%	8%	32%	85%	15%	100%
Relative Concentration									
European	**1.09**	**1.21**	**1.10**	0.75	0.85	0.78	**0.99**	**1.02**	**1.00**
Māori	0.67	0.35	0.64	**1.83**	**1.53**	**1.78**	**1.00**	0.97	**1.00**
Pacific	0.56	-	0.50	**2.42**	0.95	**2.08**	**1.09**	0.50	**1.00**
Asian	0.82	0.37	0.77	**1.51**	**1.38**	**1.49**	**1.01**	0.90	**1.00**

1 Not Owned includes NEI

Source: ME Housing Demand Model 2021

2.4.5 Other demand segments

As part of the overall assessment, the potential demand from other segments is considered. These segments are used to provide a wider view of the residential market and align with the requirements of the NPS-UD.

Seasonal workers

Seasonal work in the Hawke's Bay is closely linked to the local horticultural sector and the sector's seasonal labour requirements. The specific months associated with seasonal labour demand depends on the specific activities, and the different timeframes are quoted. Generally, the March/April periods are the low months with early and late summer being busy periods. The type of accommodation used by seasonal workers varies with backpackers and camping facilities often used by casual workers. However, it is important to note that a large portion of seasonal workers come from outside the region (and country as RSE workers). A portion of seasonal work is delivered by residents that work in the agriculture sector, delivering their services depending on the season. This suggests that a portion of seasonal workers are usually resident within the area. However, little information exists around the size (portion) of the seasonal workers that move in/out of the region. The Linked Employer Employee Data (LEED) is reported at a Hawke's Bay/Gisborne level. Scaling the data to Napier-Hastings (based on employment information in the Business Demography Survey) and considering the

difference between seasonal minimum and maximum employment suggest that the seasonal labour force is in the order of 1,780 and 2,260[25]. Importantly, this relates to the number of jobs filled and the number of workers could be higher (e.g. part time workers). This level has remained relatively stable over the past five years or so. If worker accessions[26] and separations[27] are considered, then seasonal movement fluctuates between 4,100 and 5,190 (over the past 5 years, the figures show number of workers and does not differentiate between employee nationality i.e. NZ vs RSE workers). These figures are broadly in line with other estimates that suggested that there are around 3,500 RSE workers in the Hastings area (during the peak season that is identified as November to June)[28].

Translating the information in accommodation needs is difficult and limited by a lack of suitable information about the specific accommodation preferences of seasonal workers. The information about accommodation types is presented at a regional level (that combines Gisborne and Hawke's Bay). Based on the BD data for Napier and Hastings, there are 178 accommodation establishments locally. At a regional level (Gisborne and Hawke's Bay), the data suggests that 60% of the capacity is provided in the backpackers, holiday park and campground segments. At an average size of 47 stay units[29] per backpackers and 106 for Holiday parks and campgrounds, suggest that the total capacity is 2,240 (per night). We note that the BD data (number of business units) is lower than the establishments reported in the accommodation data.

Information collected by the Councils on the seasonal worker accommodation (March 2019 and focusing on the Recognised Seasonal Employer Scheme) suggests that the RSE owned and private house accommodation provide a total of 1,192 beds. In addition, information provided by Council suggests that during 2018-2020 period an additional 1,853 units were in the development pipeline. The status of these units is however unknown. These figures[30] exclude accommodation associated with other accommodation types, like motels, hostels and camps because the accommodation monitor data (reported earlier) already includes those categories. The ongoing development of the local rural economy, and recent investments are likely to translated into additional accommodation needs. Small scale operations typically provide dedicated accommodation on site through plan enabled provisions, while larger scale operations can seek consent to develop in industrial zones[31].

Student accommodation

Student accommodation is interpreted as relating to non-resident individuals that come to the location with the purpose of studying locally. The current situation in terms of students in the location is distorted by Covid-19, especially for international students. A 2018 study[32] (pre-Covid19) showed that the region hosted 1,290 students (international). These were associated with the following institutions (student types):

- Primary and secondary students 380,
- English language schools 230,

[25] Estimated based on the Hawkes Bay data, and scaled for Napier-Hastings.
[26] Worker accessions: The number of new employees who have joined employers since the previous reference date.
[27] Worker separations: The number of employees who have left employers since the previous reference date.
[28] Nunns. H., Bedford. C. and Bedford, R. RSE Impact Study: New Zealand Stream Report. July 2019. Report prepared for the NZ Air Programme.
[29] Stay units refer to 'rooms' and should not be interpreted as beds.
[30] We note that this information is based on information received for March 2019. Additional work is needed to update and confirm these values.
[31] This issue will need to be monitored going forward to avoid adverse effects of workers and the accommodation landscape.
[32] 2018 Economic Valuation of International Education in New Zealand. Prepared for Education New Zealand. Prepared by Market Economics.

- Private Training Establishments 220,
- Institutes of Technology and Polytechnics 450.

In terms of the demand implication of these students, clearly, they add to the overall demand. But it is important to note that most of this is short term in nature and that some of the training institutions have their own accommodation that is provided at a fee. It is important to realise that students' impact on the accommodation market is through the churn they generate as well as (but to a lesser extent) the additional pressures placed on the sector. Nevertheless, the students will add to the potential demand over the long term. However, the short-term outlook for international students returning to NZ is very uncertain. In terms of the within NZ shifts (migration) to Napier and Hastings for studies, the SNZ data shows that migration in the 15-19, and 20-24 age cohorts is negative over the short, medium, and long terms. A portion of this is associated with life-cycle shifts, as children leave home, and migrate to other locations to study and to form new households.

Social and emergency housing.

A portion of housing demand arises from households that are facing challenges to find suitable accommodation in the mainstream market. This includes short term, and long-term challenges. Kāinga Ora is the agency responsible for managing a share of NZ (public) rental estate. It also engages in the local development market, delivering new housing stock. Kāinga Ora is not the sole provider or manager of social housing, it collaborates with other agencies, local government and iwi, as well as private partners, to deliver the Government's housing priorities.

The level of social housing that is provided illustrates the degree of mismatch between affordability and the mainstream housing stock. Kāinga Ora (31 March 2021) shows the level of social housing accommodation:

- In Hastings, there were 1,202 properties,[33]
- In Napier, the same equivalent figure is 1,499.

The 'Public Housing in the East Coast Region' report (March 2021) offers detail around the public housing situation in Napier and Hastings. According to the report, when New Zealanders need public housing, their needs are recorded on the Public Housing Register. The Public Housing Register is comprised of a Housing Register and a Transfer Register. The Housing Register is prioritised by need and consists of public housing applicants who have been assessed as being eligible. The Transfer Register is made up of people already in public housing, but who have requested and are eligible for a transfer to another property. Across the East Coast region, the number of people on the housing register was 2,180. More than two thirds of the East Coast's people on the housing register are in Napier and Hastings, with the following estimates:

- Napier 752 (34%), and
- Hastings 715 (33%).

The number of public tenancies (not houses[34]) is reported as:

- Napier 1,523 (37%), and
- Hastings 1,185 (29%).

[33] https://kaingaora.govt.nz/assets/Publications/Managed-stock/Managed-Stock-TLA-March-2021.pdf
[34] The tenancies include community provider tenanted properties that are either subsidised through Income-Related Rent Subsidy or the tenant is paying market rent.

In addition to the above, Kāinga Ora supports households by way of Emergency Housing Special Needs Grants. A total of 599 grants were provided to households in Hastings and another 1,224 to households in Napier (for the quarter ending March 2021).

Kāinga Ora has signalled the construction intentions under the 'Building Momentum' programme (14 May 2021). The following summary shows the anticipated development pathways for Kāinga Ora properties in Napier and Hastings.

		Napier	Hastings
Stage in process	In Planning	485	310
	Consenting and procurement	26	120
	Construction	25	75
Construction Starting	2021	115	210
	2022	170	150
	2023	140	40
	2024	75	30
Total		500	430
Source: Kāinga Ora. Building Momentum presentation			

The status of the intention to develop is unknown. Considering the uncertainty, and how the modelling runs at a parcel level (and then aggregates the results), the potential additions associated with the Kāinga Ora developments are not added (on top of) our capacity assessment. That is, the plan enabled capacity as calculated is used without further adjustments for KO's development intentions because the details around the sites, timing and development densities are unknown. Further, the assessment considers the commercial feasibility (with a developer's margin, as required by the NPS-UD).

Visitor market and short-term accommodation

Non-resident owners are not usually identified from Census information (since they are residents of other cities or districts in New Zealand or reside overseas) and an important indication of the number of such dwellings is the estimates of unoccupied dwellings (commonly holiday homes) on Census night. The share of properties that are unoccupied has been discussed earlier. Shifts in business models that enable the 'sharing economy' is also impacting the residential real estate market. This includes sharing platforms like Airbnb.

A review of AirDNA data shows that currently, there are 635 active listings and that 82% of the listings are for the entire home. The data shows that 44% of the listings are available on a full-time basis i.e. listed more than 181 days per year. Overall, this suggests that the number of dwellings that are not available for the long-term rental market is relatively small

For Napier, the AirDNA data shows that the total number of active rentals is 480, with 371 of these classified as the entire home. Around half (46%) of the dwellings are available on a full-time basis.

For both Napier and Hastings, the implied number of dwellings that are unavailable for the conventional rental market is relatively small. The estimated scale is 230 for Hastings and 171 for Napier – based on all the full time (entire homes) listings.

The above figures suggest that the Airbnb activity captures a small portion of the market and therefore, is unlikely to have a large impact on total dwelling and rental stock in Hastings or Napier. However, ongoing growth and shifts in the market and the role of sharing platforms mean that this impact needs to be monitored, particularly in the post-Covid environment when travel resumes – albeit with different underlying patterns.

2.5 Future Housing Demand

The local population is dynamic, expected to grow in absolute terms and change in the relative composition. These shifts in size and mix are not linear over time. In turn, these shifts affect the level of demand over the short, medium, and long term. The shifts in household numbers and types inform the future demand for housing.

This section describes the future demand for housing based on the medium-high projections (from StatsNZ). Future demand is estimated by assuming that the revealed patterns at a household level remain constant into the future. That is, the change in the number of household types is expected to change over time, but the type of housing (dwellings) associated with the household types is kept constant. This means that we have allowed for changes in the mix of households to flow through to the demand estimates. Demand and income levels, by household segment, are assumed to persist for the assessment period. This provides a basis for assessing future affordability based on the assumed medium-high growth scenarios. Crucially, the future demand outlook (based on the medium-high scenario) does not seek to model macro-economic matters, like interest rates, exchange rates, migration policy, and so forth, beyond the established trends in household income levels. This is considered further in relation to housing affordability (see section 4).

As the future housing demand is based on the medium-high scenario and the current housing preferences, the existing financial capabilities of different household segments are assumed to continue into the medium to long term. This means that dwelling ownership patterns, across different income cohorts are expected to remain broadly constant with current levels. This assumes that the decision to enter (or remain in) the housing market, made by households in different income bands, will remain stable. In relatively stable economies and communities like Napier and Hastings, these patterns have emerged over long periods and are an appropriate departure point.

The demand outlooks for Napier and Hastings are discussed below with the focus on the medium-high scenario. This is followed by a discussion of the high growth scenario and its implications. The section concludes with a discussion of the demand with a competitiveness margin included.

2.5.1 Napier City – Demand outlook

The medium-high growth outlook forms the basis for the future demand assessment. The outlook is presented using several different dimensions to provide a rich picture of demand looking forward. Table 2-23 offers the results and shows future housing demand by dwelling type across:

- Dwelling tenure,
- Household type,
- Income levels, and
- Ethnicity.

As mentioned in section 2.3.1, Napier is expected to see growth over the short, medium, and long terms. Households are expected to increase by 6,200 over the next three decades, with the growth expected to occur as follows:

- 2020 – 2023 1,000,
- 2023 – 2030 1,700, and
- 2030 – 2050 3,500.

Table 2-23: Summary of Medium-High Future - Napier City

Medium-High Future	Current			Short Term			Medium Term			Long Term		
	2020			2023			2030			2050		
Dwelling Tenure	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total
Owned with mortgage	6,500	430	6,930	6,580	560	7,140	6,520	620	7,140	6,710	760	7,470
Owned without mortgage	6,720	850	7,570	6,680	1,100	7,780	7,330	1,360	8,690	8,390	1,930	10,320
Owned by Trust	3,390	280	3,670	3,400	370	3,770	3,600	440	4,050	3,940	570	4,520
Total Owned or in Trust	16,610	1,560	18,170	16,660	2,030	18,690	17,450	2,420	19,880	19,040	3,260	22,310
Not Owned	6,260	1,960	8,240	6,200	2,470	8,700	6,330	2,820	9,180	6,680	3,540	10,260
TOTAL	**22,900**	**3,520**	**26,400**	**22,900**	**4,500**	**27,400**	**23,800**	**5,200**	**29,100**	**25,700**	**6,800**	**32,600**
Household Type												
One Person Hhld	5,180	2,420	7,600	5,550	2,660	8,210	6,080	3,150	9,230	6,800	4,110	10,910
Couple Hhld	7,290	950	8,240	7,820	1,050	8,870	8,380	1,240	9,620	9,220	1,640	10,860
2 Parents 1-2chn	4,000	340	4,340	3,810	240	4,050	3,660	250	3,910	3,780	290	4,070
2 Parents 3+chn	1,060	40	1,100	1,070	40	1,110	1,020	50	1,070	1,060	50	1,110
1 Parent Family	3,190	430	3,620	3,250	450	3,700	3,260	490	3,750	3,460	580	4,040
Multi-Family Hhld	560	30	590	550	40	590	550	40	590	560	50	610
Non-Family Hhld	840	60	900	830	60	890	820	80	900	870	110	980
TOTAL	**22,100**	**4,300**	**26,400**	**22,900**	**4,500**	**27,400**	**23,800**	**5,300**	**29,100**	**25,800**	**6,800**	**32,600**
Household Income												
Under $30,000	4,480	1,920	6,400	4,700	2,120	6,820	5,160	2,540	7,700	5,890	3,400	9,290
$30-50,000	4,070	910	4,980	4,310	990	5,300	4,680	1,160	5,840	5,340	1,520	6,860
$50-70,000	3,370	560	3,930	3,500	600	4,100	3,650	680	4,330	3,930	850	4,780
$70-100,000	3,840	350	4,190	3,970	380	4,350	3,980	410	4,390	4,130	500	4,630
$100-120,000	2,150	160	2,310	2,280	180	2,460	2,270	200	2,470	2,310	210	2,520
$120-150,000	1,860	130	1,990	1,950	130	2,080	1,930	140	2,070	1,970	160	2,130
$150,000+	2,380	240	2,620	2,150	140	2,290	2,130	150	2,280	2,160	170	2,330
TOTAL	**22,200**	**4,300**	**26,400**	**22,900**	**4,500**	**27,400**	**23,800**	**5,300**	**29,100**	**25,700**	**6,800**	**32,500**
Ethnicity												
European	18,320	3,610	21,930	18,910	3,830	22,740	19,780	4,480	24,260	21,370	5,790	27,140
Maori	2,730	560	3,290	2,800	600	3,400	2,850	670	3,520	3,080	870	3,940
Pacific	370	20	390	400	20	420	390	20	410	420	30	460
Asian	730	80	810	750	80	830	770	90	860	830	120	960
TOTAL	**22,200**	**4,300**	**26,400**	**22,900**	**4,500**	**27,400**	**23,800**	**5,300**	**29,100**	**25,700**	**6,800**	**32,500**
Share %												
Owned with mortgage	24.6%	1.6%	26.3%	24.0%	2.0%	26.1%	22.4%	2.1%	24.5%	20.6%	2.3%	23%
Owned without mortgage	25.5%	3.2%	28.7%	24.4%	4.0%	28.4%	25.2%	4.7%	29.9%	25.7%	5.9%	32%
Owned by Trust	12.8%	1.1%	13.9%	12.4%	1.4%	13.8%	12.4%	1.5%	13.9%	12.1%	1.7%	14%
Total Owned or in Trust	62.9%	5.9%	68.8%	60.8%	7.4%	68.2%	60.0%	8.3%	68.3%	58.4%	10.0%	68%
Not Owned	23.7%	7.4%	31.2%	22.6%	9.0%	31.8%	21.8%	9.7%	31.5%	20.5%	10.9%	31%
TOTAL	87%	13%	100%	84%	16%	100%	82%	18%	100%	79%	21%	100%
One Person Hhld	20%	9%	29%	20%	10%	30%	21%	11%	32%	21%	13%	33%
Couple Hhld	28%	4%	31%	29%	4%	32%	29%	4%	33%	28%	5%	33%
2 Parents 1-2chn	15%	1%	16%	14%	1%	15%	13%	1%	13%	12%	1%	12%
2 Parents 3+chn	4%	0%	4%	4%	0%	4%	4%	0%	4%	3%	0%	3%
1 Parent Family	12%	2%	14%	12%	2%	14%	11%	2%	13%	11%	2%	12%
Multi-Family Hhld	2%	0%	2%	2%	0%	2%	2%	0%	2%	2%	0%	2%
Non-Family Hhld	3%	0%	3%	3%	0%	3%	3%	0%	3%	3%	0%	3%
TOTAL	84%	16%	100%	84%	16%	100%	82%	18%	100%	79%	21%	100%
Under $30,000	17%	7%	24%	17%	8%	25%	18%	9%	26%	18%	10%	29%
$30-50,000	15%	3%	19%	16%	4%	19%	16%	4%	20%	16%	5%	21%
$50-70,000	13%	2%	15%	13%	2%	15%	13%	2%	15%	12%	3%	15%
$70-100,000	15%	1%	16%	14%	1%	16%	14%	1%	15%	13%	2%	14%
$100-120,000	8%	1%	9%	8%	1%	9%	8%	1%	8%	7%	1%	8%
$120-150,000	7%	0%	8%	7%	0%	8%	7%	0%	7%	6%	0%	7%
$150,000+	9%	1%	10%	8%	1%	8%	7%	1%	8%	7%	1%	7%
TOTAL	84%	16%	100%	84%	16%	100%	82%	18%	100%	79%	21%	100%
European	69%	14%	83%	69%	14%	83%	68%	15%	83%	66%	18%	84%
Maori	10%	2%	12%	10%	2%	12%	10%	2%	12%	9%	3%	12%
Pacific	1%	0%	1%	1%	0%	2%	1%	0%	1%	1%	0%	1%
Asian	3%	0%	3%	3%	0%	3%	3%	0%	3%	3%	0%	3%
TOTAL	84%	16%	100%	84%	16%	100%	82%	18%	100%	79%	21%	100%

Change between periods	2020 - 2023			2023 - 2030			2030 - 2050		
	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total
Owned with mortgage	80	130	210	-60	60	-	190	140	330
Owned without mortgage	-40	250	210	650	260	910	1,060	570	1,630
Owned by Trust	10	90	100	200	70	280	340	130	470
Total Owned or in Trust	50	470	520	790	390	1,190	1,590	840	2,430
Not Owned	-60	510	460	130	350	480	350	720	1,080
TOTAL	-	980	1,000	900	700	1,700	1,900	1,600	3,500
One Person Hhld	370	240	610	530	490	1,020	720	960	1,680
Couple Hhld	530	100	630	560	190	750	840	400	1,240
2 Parents 1-2chn	-190	-100	-290	-150	10	-140	120	40	160
2 Parents 3+chn	10	-	10	-50	10	-40	40	-	40
1 Parent Family	60	20	80	10	40	50	200	90	290
Multi-Family Hhld	-10	10	-	-	-	-	10	10	20
Non-Family Hhld	-10	-	-10	-10	20	10	50	30	80
TOTAL	800	200	1,000	900	800	1,700	2,000	1,500	3,500
Under $30,000	220	200	420	460	420	880	730	860	1,590
$30-50,000	240	80	320	370	170	540	660	360	1,020
$50-70,000	130	40	170	150	80	230	280	170	450
$70-100,000	130	30	160	10	30	40	150	90	240
$100-120,000	130	20	150	-10	20	10	40	10	50
$120-150,000	90	-	90	-20	10	-10	40	20	60
$150,000+	-230	-100	-330	-20	10	-10	30	20	50
TOTAL	700	200	1,000	900	800	1,700	1,900	1,500	3,400
European	590	220	810	870	650	1,520	1,590	1,310	2,880
Maori	70	40	110	50	70	120	230	200	420
Pacific	30	-	30	-10	-	-10	30	10	50
Asian	20	-	20	20	10	30	60	30	100
TOTAL	700	200	1,000	900	800	1,700	1,900	1,500	3,400

The relative mix of dwelling types (detached vs attached) is expected to shift away from detached dwellings towards attached. Over the short term, 84% of the expected dwelling demand is for detached dwellings, shifting down to 79% over the long term. This points to a change in demand towards more higher density dwellings normally associated with attached dwelling formats. However, the largest share of demand remains for detached dwellings.

Over time, the relativity of demand for detached-attached dwellings is expected to change as follows:

- 2020-2023 0.25 attached dwelling demanded for every 1 detached dwelling demanded,
- 2023-2030 0.89 attached dwelling demanded for every 1 detached dwelling demanded, and
- 2030-2050 0.75 attached dwelling demanded for every 1 detached dwelling demanded.

The main implications of these identified patterns are:

- Over the short term, the demand patterns suggest that detached dwellings will remain the principal typology,
- Looking towards the longer term, the shift towards attached dwellings aligns with the overall demand profile with changing housing types.

Over the medium term (2023-2030), the shift is more pronounced, continuing the shift to a higher ratio. The drop-off in the ratio over the long term is a function of population growth (more people), and an ageing population. The underlying patterns driving these movements are embedded in the SNZ datasets and therefore, the ratios are based on StatsNZ data.

The ***tenure (ownership) of dwellings*** is included in the analysis and is differentiated in terms of the two dwelling types[35]. The not-owned category includes a small number of dwellings for which tenure is not specified. The projections suggest:

- An increase in the share of dwellings owned without mortgage. This portion is anticipated to shift from around 29% (currently) to 32% by 2050. This shift is mostly in the ownership of detached dwellings, in terms of quantity. However, the proportional change in the mortgage free and attached dwellings is slightly more pronounced, which is expected to double by 2050 (even if it is off a low base).
- Detached dwellings owned with a mortgage shifts from a quarter of dwellings (25%) to a fifth (21%) by 2050. On the other hand, an upward shift is expected for attached dwellings that are owned with a mortgage. Attached dwellings (owned with mortgage) increases from 1.6% of all dwellings, to 2.3% of dwellings. Again, this change is off a low base and the change in number terms is relatively small (+330 between 2020 and 2050).
- The overall share of dwellings owned by trusts or not owned is expected to remain relatively stable, remaining rangebound between 12% and 13% of trusts and around 31% for not owned dwellings. However, the mix of not-owned dwellings will shift towards attached dwellings. Currently 24% of all properties are not owned and detached. Attached and not owned dwellings account for 7% of dwellings. These shares are estimated to change with a larger share (11%) of dwellings falling in the not owned and attached group and the detached equivalents falling to 21% of all dwellings.

By 2050, there will be an additional 2,750 households who own dwellings without a mortgage. It can be assumed that of this ownership group, a significant proportion is representative of households who have previously held a mortgage which they have since paid off over the course of their prime earning years. As

[35] The distribution of dwelling tenure across dwelling type does not align with the dwelling type proportions of the other household characteristics. This is due to housing model inputs of ownership data and household type data not aligning. The modelled totals are prorated to match the estimated dwelling/household totals.

such, an increase in the proportion of households under this ownership type reflects the long-term expectations for more households to be in the older age cohorts, towards retirement age. The proportion of households in this group in attached dwellings also increases, which may further reflect smaller households (one person and couples) in the older age cohorts, moving towards dwellings which are generally smaller and better reflect their needs given their life stages.

The increase in dwellings owned without a mortgage is matched by a corresponding decrease in the proportion who own with a mortgage. Although this group increases by 540 households over the long term, its proportion falls from 26% in 2020, to 23% in 2050. These are likely representative of younger households, who have not owned their dwelling for as long.

With reference to the proportion of households who do not own the dwellings, this share is projected to remain relatively stable. But the change in absolute terms is an increase of 2,020 households renting their accommodation. This shows the interplays between household growth and the rental market. But, the nature of the rental stock also changes over time, with a larger share of the rental stock coming in the attached group.

The dwelling tenure by dwelling type proportions show that households who own without a mortgage or do not own are expected to be increasingly leaning towards attached dwellings. An initial observation is that the increase in the share of attached dwellings could be in response to the shifting demands (due to demographic trends).

In terms of the ***household types***, the demand patterns align with standard demographic shifts. The demand shifts manifest across all household types, and income bands. The shifts in household types show the increase in smaller households, specifically one person and couple households. Importantly, these household types include both young and aged individuals. These two household types currently reside in detached dwellings with 12,470 of these households in detached dwellings and 3,370 in attached dwellings. This suggests a 78:22 percentage spilt. Over the long term, the split gradually shifts to 77:23.

Family households (one and two parents, with children) form a large part of the overall housing demand. A third (34%) of all households fall in this broad group. Over time, this share will decline to reach 28% by 2050. In terms of the overall numbers, the broad group is expected to remain stable, around the 9,000 mark. The dwelling demand profile across family households is expected to see a shift towards attached dwellings. The change is small (+110) over 30 years. Within family households, the mix will also change with one-parent families making up the change. This household type is expected to grow from 3,620 in 2020 to 4,040 by 2050. This equals a total growth of 420, more than offsetting the decline in two parent (1-2 children) households (- 270).

Multi-family and non-family households will see growth of around 100 new households between 2020 and 2050. The demand for dwellings by these household types is expected to shift towards attached dwellings, increasing from 6% to 10% of dwellings demanded by this group, being attached by 2050. However, the overriding bulk (90%-94%) of these households will continue to prefer detached dwellings. This reflects the size of these households and the preference for large(r) dwellings to accommodate household members.

A key observation is that the different household types show a slow, but distinct, shift in preference to attached dwellings. The preference shift relates to an ongoing move in dwelling demand towards higher density typologies. This pattern is being observed across NZ's cities.

The mix of detached-attached dwellings occupied by family households will see a shift towards attached dwellings. The shift is observed across tenure and household types.

The dwelling demand outlook is also broken down into demand by ***household income levels***. Income level is an important determinant of housing affordability. Seven different cohorts are used to illustrate the

outlook across income levels. Overall, the share of households falling in the lowest income band (<$30,000), is projected to grow the most, with an additional 2,890 households by 2050. This growth means that these households will become a larger share of all households – increasing from 24% of all households to 29% by 2050. The next income cohort ($30,000-$50,000) will see the second highest growth, adding 1,880 households by 2050; the share of all households in this income cohort increases from 19% to 21%. This means that by 2050, half of the households will have incomes less than $50,000, up from the current 43%. **Importantly, the ageing population is seeing a portion of households recorded in the low-income groups, but this does not necessarily reflect 'asset rich' households. Therefore, care is needed when interpreting the shift in households in the low-income cohorts. Apart from the social implications of low-income levels, the outlook points to household affordability pressures increasing.**

At the upper end of the income spectrum, the analysis suggests some shifts in the number of households in the +$100,000 cohort. However, the share of households in the upper cohort is expected to decline over time. In 2020, 27% of households have an income in the top three bands, yet by 2050, this only represents 22% of all households in Napier. Nevertheless, the number of households with incomes above $100,000 is expected to increase by 60 over the next 30 years. The remaining middle-income households, with incomes between $50,000 and $100,000, remain relatively stable in terms of proportions of total households, decreasing from 31% to 29%. However, their numbers still manage to increase, with an additional 1,290 households by 2050. These projections do not necessarily mean, that households are poorer, but it points to a relative shift in income levels. **Importantly, the ageing population is seeing a portion of households recorded in the low-income groups, but this does not reflect 'asset rich' households. Therefore, care is needed when interpreting the shift in households in the low-income cohorts.**

Using available data (and acknowledging the constraints), the outlook for dwelling demand from different ***ethnic groups*** is discussed below. Households identifying as European households form the largest group, accounting for 83% of all households. The share will remain stable, increasing by 1-percentage point to 84% over the next 30 years. Households identifying as Māori currently account for 12% of households and this share is expected to remain stable. In fact, the overall distribution of households across different ethnicities is expected to remain stable in percentage terms.

The different households have different demand for detached and attached dwellings. The demand split is influenced by the other socio-demographic attributes, like income levels, age, and household size. European households are projected to grow by 5,210 households between 2020 and 2050. Māori households are projected to grow by 650 households over the long term. Over the same period the two smallest ethnic groups, Asian and Pacific, will increase in number by 150 and 90 households, respectively. The demand for detached and attached dwellings is expected to shift towards attached dwellings with the growth associated with the following ethnicities:

- European households' demand for detached dwellings will drive 50% of the total growth in dwelling demand. The demand for attached dwellings (from European households) accounts for 36% of total demand growth. These percentages translate into 3,050 detached dwellings and 2,180 for attached dwellings.
- The remaining households' shares of the demand growth is comparatively small, some 15%. Māori households' dwelling demand is distributed relatively evenly between detached and attached dwellings. The share is 54% to detached dwellings and 46% to attached dwellings. Asian and Pacific households will account for account for 4% of the growth (+220) out to 2050 and 68% of the growth is expected to be for detached dwellings.

2.5.2 Hastings District – Demand outlook

The Hastings District is expected to see strong growth over the next 30 years. Section 2.3.1 discusses the growth outlook and provides details around the shifts across different dimensions, like:

- Household type,
- Income levels, and
- Ethnicity.

Table 2-24 summarises the findings and the key points are highlighted below. The links with dwelling tenure, household type, household income, and ethnicity are maintained, and the relative shifts are illustrated.

Recall that under the medium-high growth projections (by StatsNZ), households in Hastings are projected to grow out to 2050.

Table 2-24: Summary of Medium-High Future - Hastings District

High Future	Current			Short Term			Medium Term			Long Term		
	2020			2023			2030			2050		
Dwelling Tenure	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total
Owned with mortgage	7,750	410	8,160	7,980	550	8,530	8,150	630	8,780	8,950	840	9,790
Owned without mortgage	7,050	1,140	8,190	7,160	1,410	8,570	7,980	1,800	9,780	9,510	2,830	12,340
Owned by Trust	4,660	440	5,100	4,770	540	5,340	5,160	660	5,860	5,970	970	6,990
Total Owned or in Trust	19,460	1,990	21,450	19,910	2,500	22,440	21,290	3,090	24,420	24,430	4,640	29,120
Not Owned	7,770	2,110	9,880	7,850	2,490	10480	8,150	2,930	11230	8,960	4,040	13170
TOTAL	**27,200**	**4,100**	**31,300**	**27,800**	**5,000**	**32,900**	**29,400**	**6,000**	**35,700**	**33,400**	**8,700**	**42,300**
Household Type												
One Person Hhld	5,460	2,380	7,840	5,890	2,670	8,560	6,630	3,330	9,960	7,850	4,930	12,780
Couple Hhld	8,370	1,080	9,450	9,170	1,220	10,390	10,060	1,500	11,560	11,630	2,210	13,840
2 Parents 1-2chn	5,260	520	5,780	5,040	380	5,420	5,100	410	5,510	5,570	520	6,090
2 Parents 3+chn	1,830	80	1,910	1,880	80	1,960	1,910	80	1,990	2,080	100	2,180
1 Parent Family	3,950	570	4,520	4,110	600	4,710	4,150	660	4,810	4,550	840	5,390
Multi-Family Hhld	890	40	930	940	60	1,000	960	60	1,020	1,020	70	1,090
Non-Family Hhld	770	110	880	760	110	870	680	120	800	730	180	910
TOTAL	**26,500**	**4,800**	**31,300**	**27,800**	**5,100**	**32,900**	**29,500**	**6,200**	**35,700**	**33,400**	**8,900**	**42,300**
Household Income												
Under $30,000	4,770	1,970	6,740	5,080	2,210	7,290	5,680	2,790	8,470	6,810	4,180	10,990
$30-50,000	4,420	1,090	5,510	4,740	1,210	5,950	5,210	1,460	6,670	6,140	2,130	8,270
$50-70,000	4,140	630	4,770	4,400	700	5,100	4,660	800	5,460	5,250	1,100	6,350
$70-100,000	4,860	440	5,300	5,120	480	5,600	5,290	540	5,830	5,810	700	6,510
$100-120,000	2,670	190	2,860	2,860	220	3,080	2,930	250	3,180	3,170	320	3,490
$120-150,000	2,330	170	2,500	2,470	180	2,650	2,520	210	2,730	2,770	270	3,040
$150,000+	3,370	280	3,650	3,100	120	3,220	3,180	120	3,300	3,470	160	3,630
TOTAL	**26,600**	**4,800**	**31,300**	**27,800**	**5,100**	**32,900**	**29,500**	**6,200**	**35,600**	**33,400**	**8,900**	**42,300**
Ethnicity*												
European	20,450	3,800	24,250	21,480	4,090	25,570	22,960	4,960	27,920	26,000	7,200	33,150
Maori	4,310	750	5,060	4,450	790	5,240	4,610	910	5,520	5,200	1,300	6,550
Pacific	850	70	920	890	90	980	910	100	1,010	1,050	150	1,200
Asian	940	150	1,090	960	160	1,120	1,000	180	1,180	1,150	250	1,400
TOTAL	**26,600**	**4,800**	**31,300**	**27,800**	**5,100**	**32,900**	**29,500**	**6,200**	**35,600**	**33,400**	**8,900**	**42,300**
Share %												
Owned with mortgage	25%	1%	26%	24%	2%	26%	23%	2%	25%	21%	2%	23%
Owned without mortgage	23%	4%	26%	22%	4%	26%	22%	5%	27%	22%	7%	29%
Owned by Trust	15%	1%	16%	14%	2%	16%	14%	2%	16%	14%	2%	17%
Total Owned or in Trust	62%	6%	69%	61%	8%	68%	60%	9%	68%	58%	11%	69%
Not Owned	25%	7%	32%	24%	8%	32%	23%	8%	31%	21%	10%	31%
TOTAL	87%	13%	100%	84%	15%	100%	82%	17%	100%	79%	21%	100%
One Person Hhld	17%	8%	25%	18%	8%	26%	19%	9%	28%	19%	12%	30%
Couple Hhld	27%	3%	30%	28%	4%	32%	28%	4%	32%	27%	5%	33%
2 Parents 1-2chn	17%	2%	18%	15%	1%	16%	14%	1%	15%	13%	1%	14%
2 Parents 3+chn	6%	0%	6%	6%	0%	6%	5%	0%	6%	5%	0%	5%
1 Parent Family	13%	2%	14%	12%	2%	14%	12%	2%	13%	11%	2%	13%
Multi-Family Hhld	3%	0%	3%	3%	0%	3%	3%	0%	3%	2%	0%	3%
Non-Family Hhld	2%	0%	3%	2%	0%	3%	2%	0%	2%	2%	0%	2%
TOTAL	85%	15%	100%	84%	16%	100%	83%	17%	100%	79%	21%	100%
Under $30,000	15%	6%	22%	15%	7%	22%	16%	8%	24%	16%	10%	26%
$30-50,000	14%	3%	18%	14%	4%	18%	15%	4%	19%	15%	5%	20%
$50-70,000	13%	2%	15%	13%	2%	16%	13%	2%	15%	12%	3%	15%
$70-100,000	16%	1%	17%	16%	1%	17%	15%	2%	16%	14%	2%	15%
$100-120,000	9%	1%	9%	9%	1%	9%	8%	1%	9%	7%	1%	8%
$120-150,000	7%	1%	8%	8%	1%	8%	7%	1%	8%	7%	1%	7%
$150,000+	11%	1%	12%	9%	0%	10%	9%	0%	9%	8%	0%	9%
TOTAL	85%	15%	100%	84%	16%	100%	83%	17%	100%	79%	21%	100%
European	65%	12%	77%	65%	12%	78%	64%	14%	78%	61%	17%	78%
Maori	14%	2%	16%	14%	2%	16%	13%	3%	16%	12%	3%	15%
Pacific	3%	0%	3%	3%	0%	3%	3%	0%	3%	2%	0%	3%
Asian	3%	0%	3%	3%	0%	3%	3%	1%	3%	3%	1%	3%
TOTAL	85%	15%	100%	84%	16%	100%	83%	17%	100%	79%	21%	100%

Change between periods	2020 - 2023			2023 - 2030			2030 - 2050		
	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total
Owned with mortgage	230	140	370	170	80	250	800	210	1010
Owned without mortgage	110	270	380	820	390	1210	1530	1030	2560
Owned by Trust	110	100	240	390	120	520	810	310	1130
Total Owned or in Trust	450	510	990	1380	590	1980	3140	1550	4700
Not Owned	80	380	600	300	440	750	810	1110	1940
TOTAL	600	900	1,600	1,600	1,000	2,800	4,000	2,700	6,600
One Person Hhld	430	290	720	740	660	1400	1220	1600	2820
Couple Hhld	800	140	940	890	280	1170	1570	710	2280
2 Parents 1-2chn	-220	-140	-360	60	30	90	470	110	580
2 Parents 3+chn	50	0	50	30	0	30	170	20	190
1 Parent Family	160	30	190	40	60	100	400	180	580
Multi-Family Hhld	50	20	70	20	0	20	60	10	70
Non-Family Hhld	-10	0	-10	-80	10	-70	50	60	110
TOTAL	1,300	300	1,600	1,700	1,100	2,800	3,900	2,700	6,600
Under $30,000	310	240	550	600	580	1180	1130	1390	2520
$30-50,000	320	120	440	470	250	720	930	670	1600
$50-70,000	260	70	330	260	100	360	590	300	890
$70-100,000	260	40	300	170	60	230	520	160	680
$100-120,000	190	30	220	70	30	100	240	70	310
$120-150,000	140	10	150	50	30	80	250	60	310
$150,000+	-270	-160	-430	80	0	80	290	40	330
TOTAL	1,200	300	1,600	1,700	1,100	2,700	3,900	2,700	6,700
European	1030	290	1320	1480	870	2350	3040	2240	5230
Maori	140	40	180	160	120	280	590	390	1030
Pacific	40	20	60	20	10	30	140	50	190
Asian	20	10	30	40	20	60	150	70	220
TOTAL	1,200	300	1,600	1,700	1,100	2,700	3,900	2,700	6,700

Consequently, demand for housing is expected to increase by:

- 2020 – 2023 1,600,
- 2023 – 2030 2,800, and
- 2030 – 2050 6,600.

This household growth is analysed further by adding another layer accounting for dwelling demand, broken down by detached and attached dwellings.

At a high level, the key underlying trend that is observed in the data is the shift towards higher density, attached dwellings. This shift is evident in the relative mix of dwelling types (detached vs attached) that changes over time. Over the short term, 85% of the expected dwelling demand is for detached dwellings, shifting down to 79% over the long term. The balance relates to attached dwellings, suggesting that the overall demand for the higher density typologies will increase from 15% to 21% of the total demand. In number terms, the relativities between detached and attached dwellings are:

- 2020-2023 0.23 (attached dwelling demanded for every 1 detached dwelling demanded),
- 2023-2030 0.65 (attached dwelling demanded for every 1 detached dwelling demanded), and
- 2030-2050 0.69 (attached dwelling demanded for every 1 detached dwelling demanded).

The analysis suggests that the shift to higher density, attached dwellings will take place over the longer term.

The ***ownership patterns*** across dwelling types will change, reflecting demographic changes over time. Dwellings are further differentiated in terms of in terms of ownership across the two dwelling types[36]. The not-owned category includes a small number of dwellings for which tenure is not specified. The overall pattern reflects the household structure across communities in Hastings. The projections show an increase in the proportions of dwellings owned without mortgage, with the proportion of households who own dwellings with a mortgage decreasing over time. At the same time, the proportions of household who do not own or owned by trust remain relatively constant. With the dwelling types considered, there is projected to be an increase in the proportions of households residing in attached dwellings, who do not own the dwelling and own it with a mortgage.

The shares for the main categories are expected to shift as follows:

- Detached
  - Share of all dwellings owned with a mortgage - 25% in 2020 down to 21% by 2050,
  - Share of all dwellings owned without a mortgage – 23% in 2020 down to 22% by 2050.
- Attached
  - Share of all dwellings owned with a mortgage - 1% in 2020 up to 2% by 2050,
  - Share of all dwellings owned without a mortgage – 4% in 2020 up to 7% by 2050.
- Overall
  - Detached: Share of all dwellings owned (with mortgage or in trust) - 62% in 2020 down to 58% by 2050.
  - Attached: Share of all dwellings owned (with mortgage or in trust) - 6% in 2020 up to 11% by 2050.

The increase over the next three decades of households who own without a mortgage reflects population ageing. By 2050, there will be an additional 4,150 households who own without a mortgage. This sees the

[36] The distribution of dwelling ownership across dwelling type does not align with the dwelling type proportions of the other household characteristics. This is due to housing model inputs of ownership data and household type data not aligning (and is based on official StatsNZ data. However, the differences are not substantial.

proportion of this group in the total number of households rise from 26% in 2020 to 29% in 2050. It can be assumed that of this ownership group, a significant proportion is representative of households who have previously held a mortgage which they have since paid off over the course of their prime earning years. As such, an increase in the proportion of households under this ownership type reflects the long term expectations for more households to be in the older age cohorts, towards retirement age. The proportion of households in this group in attached dwellings also increases, which may further reflect smaller households (one person and couples) in the older age cohorts, moving towards dwelling which are generally smaller and reflect better reflect their needs given their life stages.

The change in ***household types*** through time will impact demand for dwellings. Demand for attached dwellings is concentrated across the smaller household types. Demand for attached dwellings from one person and couple households account for 8% and 3% of (total) dwelling demand, respectively. The shares increase over the long term, with demand for attached dwellings from one person households increasing to 12%. Demand for attached dwellings from couple households is expected to account for 5% of all demand by 2050 – this suggests the combined share increases from 11% to 17%. Regardless of this growth, the relative size of demand for detached dwellings from these two household types will remain a key part of the overall demand landscape – the shares are 17% and 27% for one-person and couple households increasing only marginally to 19% and 27%, respectively, by 2050. The stable percentages mask the change in absolute terms, with both household types increasing considerably over the long term, up by 4,940 and 4,390, respectively (to 2050).

Family households form another important component of demand, but the growth is more muted. Most of the demand from family households is expected to remain with detached dwellings – increasing by +1,160 over 30 years. Demand for attached dwellings (from families) is expected to slowly increase with addition demand of +310 between 2030 and 2050. While demand for attached dwellings is expected to grow relatively faster than demand for detached dwellings, this rate of change reflects the small base. The additional demand (over 30 years) for attached dwellings by family households equate to 3% of all demand growth.

Multi-family and non-family households are expected to remain associated with detached dwellings. The remaining types of multi- and non-family households are relatively small and do not represent a significant proportion of future household growth. The proportions for multi-family and non-family households, both at 3% in 2020, remain relatively unchanged from current levels through to the long term, with non-family households falling marginally to a proportion of 2%. By 2050, there is projected to be an additional 160 multi-family households and 30 non-family households. While these groups do not necessarily grow significantly and remain relatively small, the two types comprise unique segments of household demand, generally representing large household sizes and thus a larger share of the population than the share of households.

The projections for the number of households by ***household income*** show strong growth within the low-income bands, while the higher income bands capture lower proportions of households. The lowest band (<$30,000) is projected to grow the most, with an additional 4,250 households by 2050, increasing from 22% of households to 26%. The next income band ($30,000-$50,000), will experience the second highest household growth, with an additional 2,760 households by 2050, to represent 20% of all households. This means that a combined 46% of households will have incomes less than $50,000 by 2050. This is an increase of six percentage points, from 40% in 2020. The lower income households (<$50,000) account for 64% of the total demand for attached dwellings. Over the long term, this share is expected to increase to 71% of attached demand. This suggests some links to housing affordability. Mid income level households ($50,000-$100,000) have a strong preference towards detached dwellings and currently account for 9,000 detached dwellings and 1,070 attached dwellings, which equates to 29% and 3% of all dwellings, respectively. Over the long term, these shares change to 26% for the detached dwellings and 5% for attached dwellings. These percentage shifts correspond to strong shifts in the dwelling numbers – demand for detached dwellings from the mid-

income bands is expected to increase by 2,060 over the long term, and demand for attached dwellings is expected to raise by 730.

The remaining middle income households, with incomes between $50,000 and $100,000, decrease slightly in terms of proportions of total households, decreasing from 32% to 30%. However, their numbers still increase, with an additional 2,790 households by 2050.

While there is some growth in high income households (+$100,000), the share of the total in these bands is expected to decrease. In 2020, 29% of households have an income in the top three bands, yet by 2050, this represents 24% of all households in Hastings. By 2050, the number of households in the +$100,000 bands will be up by 1,150 (from their current level). The breakdown of dwelling demand in the high-income bands is firmly associated with detached dwellings and only a small portion of the long-term growth is associated with attached dwellings (+170).

The demand across different ***ethnic groups*** is estimated using available information and datasets. These datasets have some limitations, impacting the ability to triangulate the results. European households dominate the overall dwelling demand situation, and this is expected to continue. Currently, European households' demand is concentrated in detached dwellings with 84% of European households preferring these dwellings. Over the long term, this is share will decline to 78% even as the number of European households in detached dwellings increases by 5,550. The share of European households associated with attached dwellings is expected to shift from 16% to 22% and with the number of these households increasing from 3,800 to 7,200 – an increase of 3,400. The other ethnicities all see growth in proportions residing in attached dwellings but given their overall small size (relative to the European households), these increases are relatively small, in terms of quantity. The shifts are:

- Māori households
  - Detached dwellings – down from 85% of Māori households to 79% over the long term.
  - Attached dwellings – increase in share from 15% to 21%.
- Pacific households
  - Detached dwellings – down from 92% of Pacific households to 88% over the long term.
  - Attached dwellings – increase in share from 8% to 12%.
- Asian households
  - Detached dwellings – down from 86% of Asian households to 82% over the long term.
  - Attached dwellings – increase in share from 14% to 18%.

Overall, the demand patterns align with the identified demographic shifts. The demand shifts are evident over all the different household types and income bands. These shifts align with observed patterns as dictated by affordability, where households make trade-offs between dwelling type and ability to service a mortgage (i.e., affordability considerations) when looking to enter and stay in the property market.

2.5.3 Alternative Growth Scenarios – Demand outlook

In addition to the base growth scenarios presented above, two alternative scenarios were considered. Recall that the base scenario aligns with StatsNZ's medium-high projections. The alternative scenarios reflect lower and higher growth pathways and are based on the StatsNZ projections:

- **The StatsNZ projection labelled the 'medium' set is used as the low scenario for Napier and Hastings.**
- **StatsNZ's high projection set forms the upper estimate for Napier and Hastings.**

The subsequent discussions highlight the overall scale of change, relative to the medium-high scenario used for the base situation. Appendix 2 and Appendix 3 offer summary data for Napier and Hastings' high growth scenarios. This includes base data about the outlook for dwelling tenure, household types, income distributions, and ethnicity, from 2020 to 2050. The household estimates (totals) and the relativities of the different aspects hold constant across the projection sets. This is because the household projections are based on StatsNZ population estimates that are then translated to household estimates using embedded relativities. Therefore, the next discussion focuses on the total level (overall scale) and does not delve into the details associated with each growth scenario. The highlights for Napier and Hastings are presented separately.

Napier City

The growth outlook for Napier City under the low and the high pathways is summarised below.

Table 2-25: Napier City – Outlook, per scenario (Low and High)

	Low	High
2020	26,060	26,800
2023	26,910	27,900
2030	28,200	29,900
2050	30,410	34,700

The difference between the low and high scenarios is considerable. Under the high pathway (2020-2050), the number of households in Napier is expected to grow by 29%, a compound growth rate of 0.9% annually. In comparison, under the medium-high projections the number of households rises by 23%. While the high growth projections have no effect on the proportional structure of housing demand, the high growth projections estimate higher numbers of households spread throughout, without altering the representation of each type or characteristic.

The high growth projections for Napier, when compared with the medium-high projections, further project an additional 100 households in the short-term growth, 400 in the medium term growth, and 1,100 in the long term. Cumulatively, this equates to 2,000 households above the base scenario (medium-high scenario). This difference includes a higher starting point that reflects the unknowns associated with the recent growth phase.

As mentioned, while the proportions remain constant across the projections, of note is the size of the total household numbers across the different types and characteristics. Substantial growth is expected for one person and couple household types, with their numbers reaching 11,590 and 11,570 by 2050, respectively. For one person households, this is an increase of 3,890 or 51%. While for couple households, their numbers increase by 3,250 or 39%.

The analysis also considered a low growth situation that projects overall growth in household numbers lower than the base scenario. In the intermediate years, the rate of change falls below the base case, starting at 2% below the base by 2023, and -3.1% by 2030. In absolute terms, the difference is around 500 fewer over the short term, and -900 over the medium term. Over the long term (by 2050), the difference between the low and base growth pathways is 7% lower than the base by 2050, or 2,190 fewer dwellings.

Hastings District

With reference to Hastings, the alternative growth pathways are the same as for Napier. Under the high pathway, between 2020 and 2050 the number of households in Hastings grows by 41%, compared to 35% for the base, and 28% for the low pathway. The expected growth across the low and high scenarios are summarised below:

Table 2-26: Hastings – Outlook per scenario (Low and High)

	Low	High
2020	30,960	31,700
2023	32,410	33,500
2030	34,680	36,610
2050	39,770	44,740

The high scenario has starting point, in 2020, of 400 households above the base scenario. Over the short term, the rate of change is greater for the high scenario (+200 vs the base), +380 over the medium term and another 1,490 between 2030 and 2050. Combined, the difference from the base case is 2,450. With reference the low scenario, the shifts are lower – over the short term, the different is 510, 970 over the medium term by 2030 and 2,520 over the long term to 2050. It is important to note that the population (and household) projections are for the entire district (including the rural areas).

2.5.4 Competitiveness Margin

Clause 3.22 of the NPS-UD requires that a competitiveness margin of 20% in the short and medium term and 15% in the long term be added to projected demand. The purpose of the margin is to support choice and competitiveness in housing and business land markets by ensuring that Council enables at least 15-20% more capacity than required to meet demand.

It is very important to differentiate between providing for housing capacity, which is done by ensuring sufficient plan-enabled and infrastructure-serviced land supply for anticipated needs and building that housing capacity. The preceding household projections and demand analysis identifies the number of dwellings expected to be required to accommodate Napier's and Hastings' future population. From that base, Councils are required to provide for sufficient plan-enabled and serviced land to accommodate that growth, and up to 20% more for the competitiveness margin.

This means the competitiveness margin applies to land capacity, and not to the housing which can be expected to take up that land. Since the supply of new dwellings is predominantly a private sector activity, where developers and builders take up land and build dwellings in expectation of uptake – often an expectation which has the security of contractual arrangements – it is unlikely that the private sector would look to provide for and actually build capacity to be ready 2-4 years before an expected sale.

Accordingly, development of housing can be expected to generally be in line with or slightly ahead of the uptake of new dwellings by households. The competitiveness margin applies to the land capacity, which is provided for through zoning and infrastructure, rather than the land development itself, and especially the built development.

Figure 2-3 and Figure 2-4 show the demand outlook (for dwellings) at an aggregate level, across the different timeframes and for the growth scenarios of Napier City and Hastings, respectively.

Note: The three scenarios are called the low, medium and high scenarios for this assessment. In reality, the three scenarios align with StatsNZ's medium, medium-high and high projections series.

Figure 2-3 – Napier demand outlook, per scenario and competitiveness margin (L, M and High)

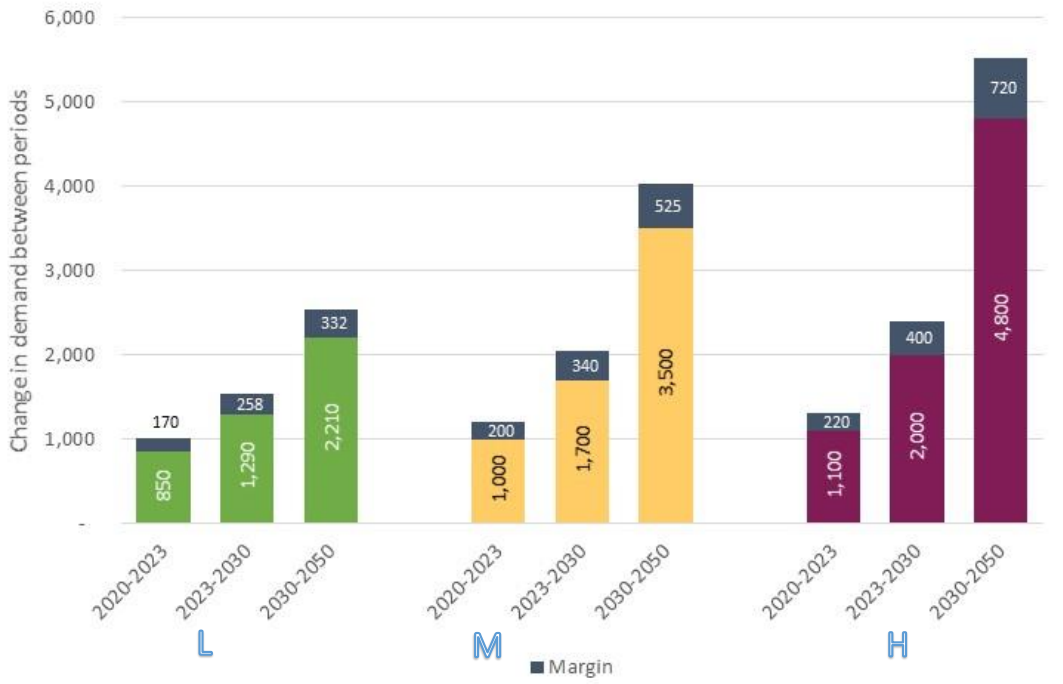
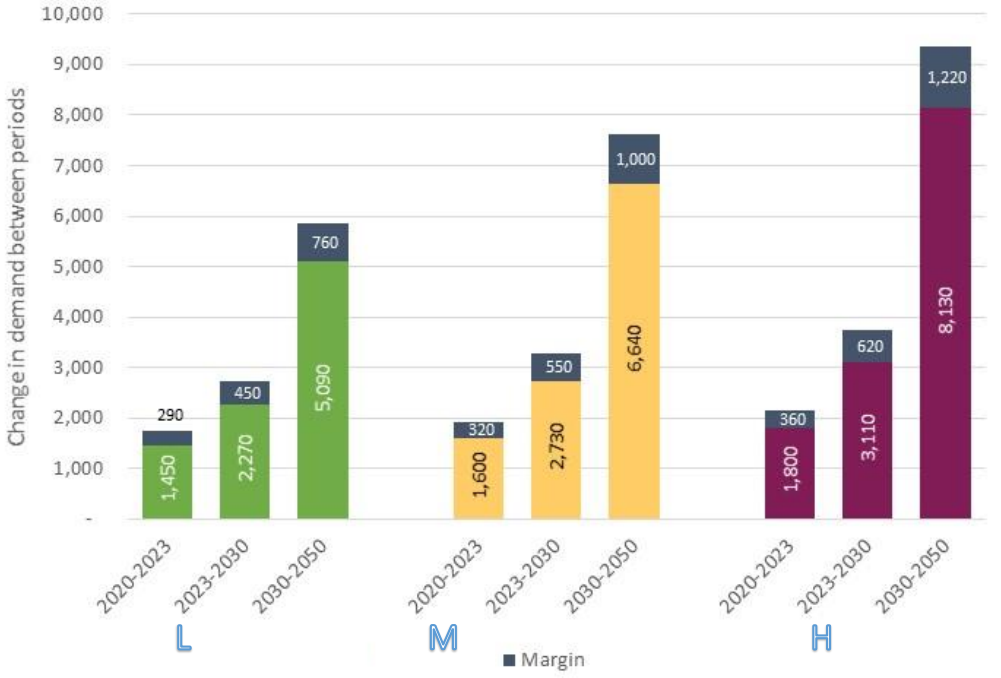


Figure 2-4 – Hastings: Outlook, per scenario and competitiveness margin (L, M and High)



The competitiveness margin across the two areas adds a substantial, additional component to the overall dwelling demand. Adding the competitiveness margin to the demand increases the effective demand levels by:

- Napier:
  - Short term 2020-2023 +170 to +220
  - Medium term 2023-2030 +258 to +400
  - Long term 2030-2050 +332 to +720
- Hastings
  - Short term 2020-2023 +290 to +360
  - Medium term 2023-2030 +450 to +620
  - Long term 2030-2050 +760 to +1,220

It is important to recognise that the assessment of future housing demand is based largely on a "Business as Usual" or BAU base case, in which the current housing preferences and capabilities for each socio-demographic group are assumed to continue into the medium and long term. That means that dwelling ownership levels for each household segment will be more or less the same in 10- and 30-years, for the segments which are around then. The BAU future assumes that households with those characteristics in 10- or 30-years' time will have the same ownership patterns. In a relatively stable economies and communities like Napier and Hastings, where current patterns have developed over a long period, the BAU assumption is generally the appropriate starting point.

It provides a basis for assessing future affordability. However, the BAU demand future does not seek to model macro-economic matters, beyond the established trends in household income levels. This is considered further in relation to housing affordability.

2.6 Concluding remarks

The first part of the report covered the demand outlook for Hastings and Napier City. The analysis has shown that the growth outlook for both Napier and Hastings is positive. Factors like the ageing population and ongoing growth are expected to change the nature of demand for dwellings looking forward. The anticipated change is showing a reasonably large spread between the low and high scenarios. Importantly, these growth scenarios are based on StatsNZ's medium, and higher growth projections. The base projection set that is used is the medium-high set. The rationale for selecting the medium-high position is based on feedback from the Councils and aligns with their aspirational targets, supports growth drivers (e.g. Win a life promotions) and well as observed patterns over the short term.

An immediate implication of using the new population projections and using the high(er) projection series is that the projected growth is considerably higher than those used by the Council for earlier analysis and assessments, including the work for the National Policy Statement on Urban Development Capacity as well as early draft work for the Long Term Plans. The timing of StatsNZ's population projection release means that the NPS-UD response is some of the first work to consider the higher growth pathways. To put this into context, the difference between the previous and most recent population projections over the long term (2048) for Hastings is 9%. This is a substantial lift from the earlier numbers and the higher growth pathway flows into the dwelling demand. We understand that the Councils are reviewing their internal datasets to reconcile and assimilate the new projections with the other workstreams, like the asset management plans and processes.

3 Housing Supply

Section summary: Housing supply reflects the current housing stock, the expected new estate and how these change over time. CoreLogic data underpins this section[37], and it draws on property sales data and values. Generally, residential houses in Napier and Hastings are relatively cheaper than the NZ levels, but house prices have seen very strong growth over the recent decade. The rate of change has been faster than the overall NZ situation. This is impacting local affordability.

The relativity between land values (LV) and sales prices is used as a metric of how local planning activity and the market interact. Development densities is a central way through which local planning impacts (i.e. through minimum lot size and heights). LV share of overall price has remained relatively stable over the past 15 years – moving between 40% and 50%. This ratio includes historic and recent developments.

Consent information reveals the development patterns and how the market is tracking. The local construction sector shows cyclical movements corresponding with NZ's macro-economic conditions. Overall, the consent data in Hastings shows a downward shift in (weighted) average dwelling sizes while the count of consents have been trending up. In Napier, consents relating to retirement units have outperformed the wider market.

Looking forward, the property estate is expected to increase in value, reflecting the shifts in Land Values and the Value of Improvements. In Hastings, most properties currently fall in the $400,000 - $999,000 band (68%). Over the long term (to 2050), the distribution would change with the number of dwellings in the sub-$700,000 band reducing to 38% of properties. In Napier, 61% of dwellings are in the $400,000-600,000 band and this shifts over time. By 2050, the $700,000-$1m band is expected to account for almost half (48%) of the properties.

This section examines the residential property estates of Napier City and Hastings District, to identify the current dwelling composition and property values. The analysis is informed by a review of consent data, development trends and shifts in land values, in turn, these trends and shifts provide a way to develop a view about the housing estate in the future. That is the likely future dwelling estate, taking account of the existing dwelling estate, and potential additions to that estate in the future, with a specific focus on the trends in land and improvement values, and how these affect dwelling values and prices.

This section reports estimates derived using the M.E *Housing Supply Model.* The model is used to identify the size and nature of the current and future dwelling estates, including dwelling typology and values. It provides the supply-side platform for the Housing Affordability assessment. The model reflects different parts:

- The current estate,
- The expected new estate, i.e., development activity and new additions over the short medium and long terms,
- The total (estimated) future estate.

This section relies heavily on information purchased from CoreLogic. It uses property attributes like typology, size, sales value, and location as a way to segment the property estimate. The data draws on recent property sales (and value) data and is then structured in to enable an assessment of the distribution (of properties) across value bands.

[37] We note that the CoreLogic data for Napier appears to be low compared to the rating data. We continue to use the CoreLogic data for the relative comparisons and trend movements.

3.1 Current Dwelling Estate

The current estate for Hastings and Napier is discussed by starting with a description of the count of dwellings in each value band, by main dwelling type (based on CoreLogic categories). This analysis shows the current housing price structure in the Council area and the dimensions of the existing dwelling estate.

3.1.1 Hastings – Current Estate

Table 3-1 summarises the Hastings District's residential property estate, drawing from the CoreLogic dataset. The data is for 2020 (June) and the property descriptions differ from those used by StatsNZ and also does not align directly with the rating data. Nevertheless, this foundation information is useful in explaining the current real estate and its structure.

The CoreLogic data indicates that there are 31,390 residential properties in total, which concords well with the Census-based estimates of 31,330 resident households. The overall value of the property estate is estimated at $18.4bn, broken down to:

- Land value $8.3bn (45%)
- Value of improvements $10.0bn (55%).

The main residential types are shown as a group, and these generally represent urban residential properties, with the 'Residential Dwelling' and 'Residential Apartments' the dominant categories.

Table 3-1: Hastings Residential Property Estate (2020)

Property Category	Count	Land Value ($m)	Improved Value ($m)	Capital Value ($m)	Mean LV ($000)	Mean IV ($000)	Mean CV ($000)	LV as % CV	Mean LV as % NZ	Mean IV as % NZ	Mean CV as % NZ
Residential Dwelling	22,880	$5,998	$6,907	$12,905	$262	$302	$564	46%	64%	106%	81%
Residential Home & Income	210	$71	$88	$159	$339	$420	$759	45%	52%	101%	71%
Residential Apartments	4,730	$770	$1,045	$1,815	$163	$221	$384	42%	55%	81%	67%
Residential Rental flats	460	$113	$168	$281	$245	$365	$610	40%	49%	88%	67%
Residential Convert Flats	90	$22	$21	$43	$240	$235	$475	51%	37%	77%	49%
Sub-total Residential	28,370	$6,973	$8,229	$15,202	$246	$290	$536	46%	62%	101%	79%
Lifestyle Improvement	3,020	$1,383	$1,811	$3,193	$458	$600	$1,057	43%	101%	138%	119%
Total	31,390	$8,356	$10,040	$18,396	$266	$320	$586	45%	67%	107%	84%
Source: Calculations based on CoreLogic											

The table shows the mean values for land values (LV), value of improvements (VoI) and capital values and across the portfolio, the mean values (excluding the lifestyle properties) are:

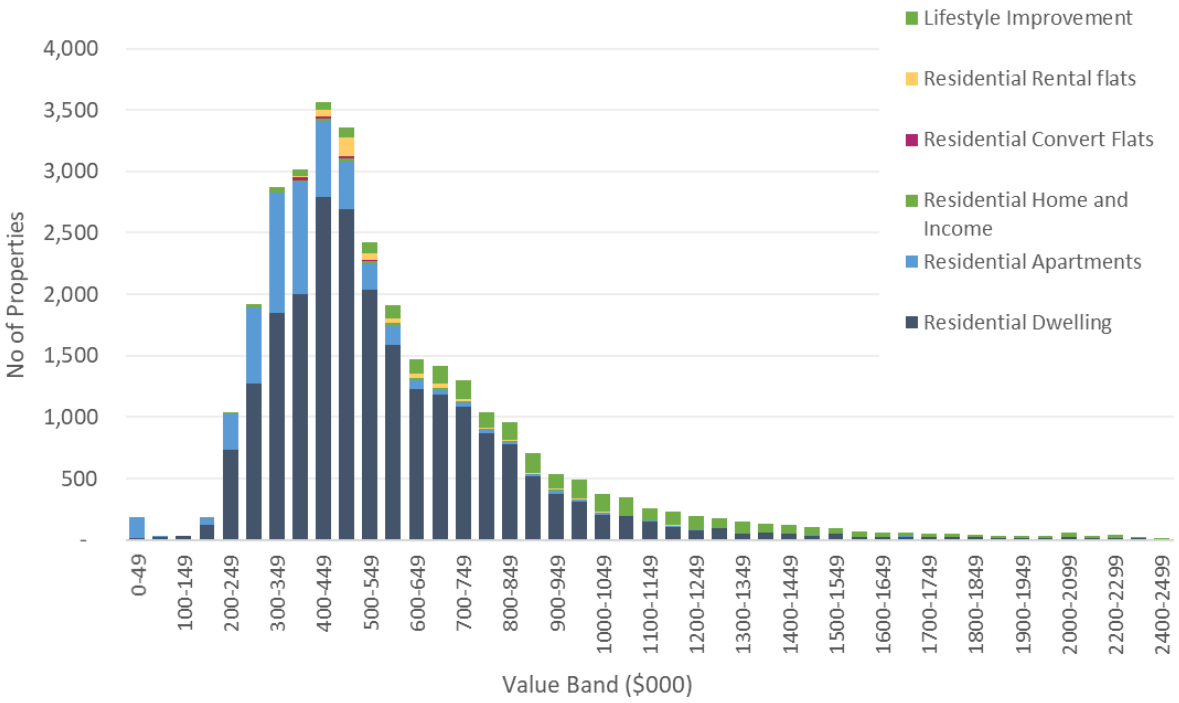
- Land value $246,000,
- Value of Improvement $290,000, and
- Capital Value $536,000.

The difference in the mean values of the residential type and the lifestyle properties is important to note. The lifestyle properties have a larger LV component (due to larger area), but the VoI is also considerably higher. This higher level shows not only the residence, but also other building and improvements. Therefore, some caution is needed when using the 'total' value.

The righthand side of the table compares the Hastings estate with the NZ equivalent. The Hastings LVs appear to be considerably lower than the NZ equivalents, with the residential sub-total showing a 62% rate. The VoI are however broadly similar but with the residential and home and income subsegments slightly higher relative to NZ. In terms of the Capital Values (LV plus VoI), the Hastings values are lower than the NZ levels. Importantly these relativities compare the mean values (so the mean value, not the value of comparable properties). For the main residential types, Hastings values are 71% to 81% of the national figure. For Lifestyle properties, the Hastings estate is much higher than the New Zealand average values, +19%.

Figure 3-1 shows the distribution of properties across value bands and for the main types.

Figure 3-1: Hastings – Residential Real Estate – by type and value band



The key points are:

- The bulk (55%) of properties are concentrated around the $300,000-$600,000 band.
- The residential dwellings show a slightly wider spread, with the distribution covering a wider range. Around three quarters (77%) of residential dwellings are in the $250,000-$750,000 bands. The balance is mostly in the bands over the $750,000-mark and less than 5% is below $250,000.
- Apartments account for 15% of the dwelling stock and the overall value distribution is lower than that of residential dwellings. Eighty-five per cent of apartments are valued in the sub-$500,000 mark.

In contrast to apartments, lifestyle properties fall in the higher value bands. While the distribution is not as concentrated in a small number of value bands, the overall distribution is towards the higher bands. More than 80% of lifestyle properties are valued in the +$650,000 bands. The lifestyle properties account for 10% of all dwellings.

Appendix 4 provides additional information about the local real estate market. The Appendix shows how the value distribution compares against the NZ situation. It also shows the relativity of LV and VoI (as the component parts of value) across the value bands.

3.1.2 Napier – Current Estate

Table 3-2 presents a summary of Napier City's residential property estate based on our analysis of CoreLogic data. Figure 3-2 shows the distribution of properties across value bands and for the main types.

As mentioned earlier, the data is for 2020 (June) and the underlying definitions vary from the StatsNZ datasets. Despite the data and definitional differences, the CoreLogic data provides a foundation for the analysis. **However, we note that the data appears to be understanding the locally observed (e.g. rating information) data values. The CoreLogic values are used to maintain comparability with other areas (i.e. use one dataset).**

Table 3-2: Napier Residential Property Estate (2020)

Property Category	Count	Land Value ($m)	Improved Value ($m)	Capital Value ($m)	Mean LV ($000)	Mean IV ($000)	Mean CV ($000)	LV as % CV	Mean LV as % NZ	Mean IV as % NZ	Mean CV as % NZ
Residential Dwelling	21,550	$4,805	$5,742	$10,547	$223	$266	$489	46%	55%	93%	71%
Residential Home & Income	230	$55	$80	$135	$239	$347	$587	41%	36%	83%	55%
Residential Apartments	2,830	$421	$604	$1,025	$149	$213	$362	41%	50%	78%	64%
Residential Rental flats	410	$105	$134	$240	$257	$327	$584	44%	52%	79%	64%
Residential Convert Flats	110	$25	$31	$56	$228	$285	$513	44%	35%	93%	53%
Sub-total Residential	25,130	$5,411	$6,592	$12,002	$215	$262	$478	45%	55%	92%	70%
Lifestyle Improvement	630	$252	$325	$577	$400	$515	$916	44%	88%	118%	103%
Total	25,760	$5,663	$6,916	$12,579	$220	$268	$488	45%	55%	90%	70%
Source: Calculations based on CoreLogic											

CoreLogic data shows that there are 25,760 residential properties in total in Napier. This is broadly consistent with Census-based estimates of 26,400 resident households (but we note the undercount). The aggregate value of the residential property estate is estimated at $12.6bn, broken down to:

- Land value $5.7bn (45%), and
- Value of improvements $6.9bn (55%).

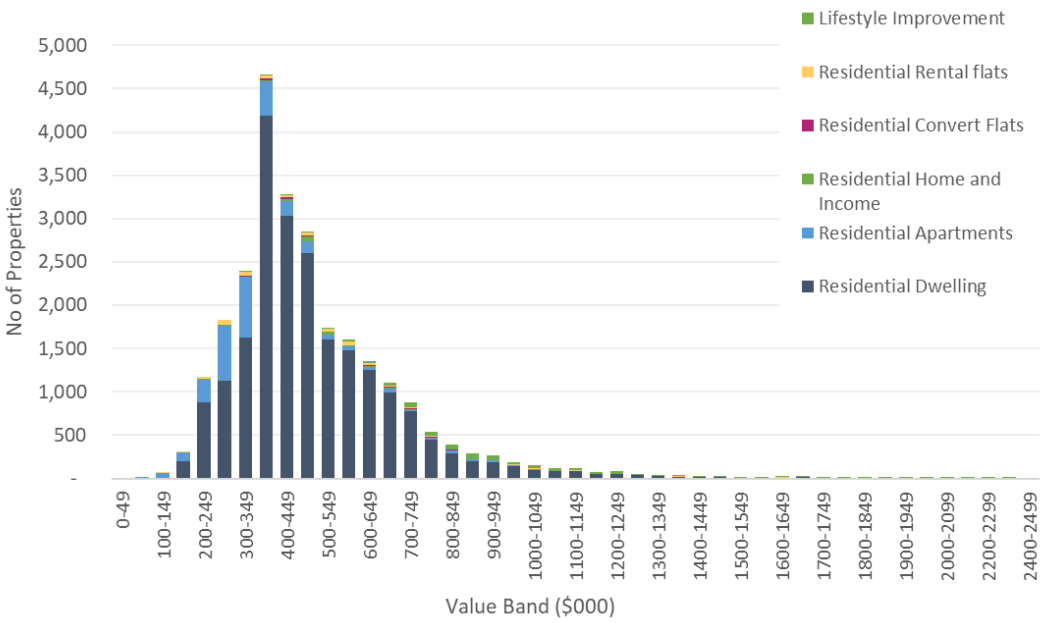
The main residential types are mostly associated with urban residential properties, with the 'Residential Dwelling' and 'Residential Apartments' the dominant categories. These two categories account for 86% and 11% of the urban residential dwellings (excluding lifestyle properties).

The above table shows the mean values[38] for:

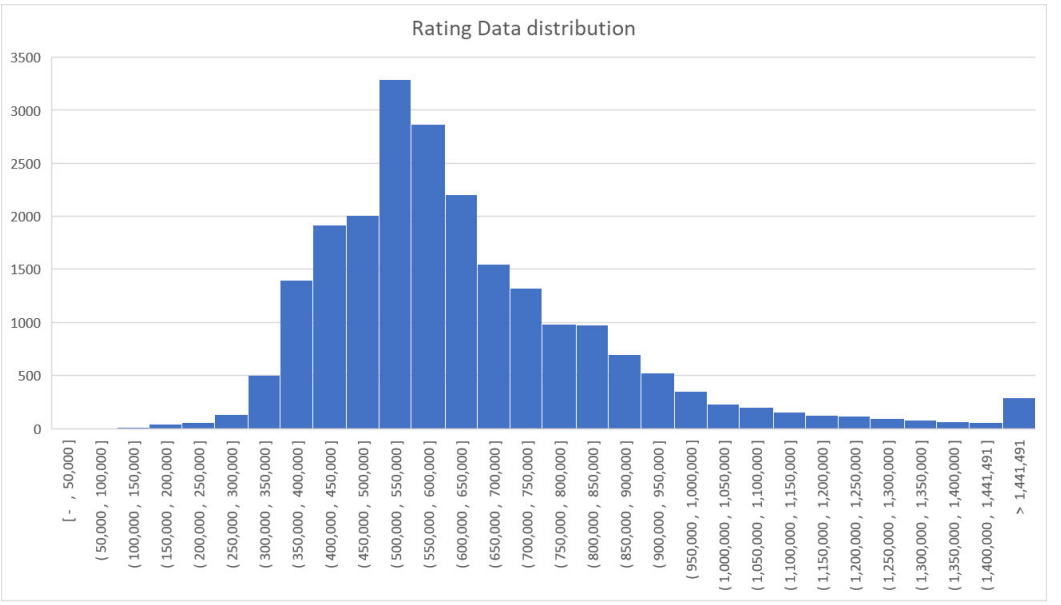
- Land value $215,000,
- Value of Improvement $262,000, and
- Capital Value $478,000.

[38] Excluding lifestyle properties.

Figure 3-2: Napier – Residential Real Estate – by type and value band



Draft note: CoreLogic data appears low, and very concentrated. The rating data shows a different profile (below). After an internal review, the rest of the modelling was based on the rating data. The feasibility modelling runs off the rating information, so this issue does not impact capacity modelling.



The lifestyle properties' values are higher than the urban estate's values. This is as expected because lifestyle properties tend to have larger LV components (due to larger area). Similarly, the VoI is also higher because the properties are larger, the values are not pulled down by small(er) and low(er) properties associated with apartments. This means that the 'total' values, including the lifestyle properties must be used with caution.

The table compares the Napier levels with the same properties across NZ. The Napier LVs appear to be considerably lower than the NZ equivalents, with the residential sub-total showing a 70% rate, that is, the median value is 70% of the NZ median value. The LV components across the different property categories are noticeably below the NZ level (55%). In terms of the Capital Values (LV plus VoI), the Napier values are also lower than the NZ equivalents. Importantly these relativities compare the mean values (not the value of comparable properties). For the main residential types (residential dwellings and apartments), the LV ratios are 55% and 50% *vis* of the national figure. The IV comparison is 93% and 78% for the two property types, respectively. For Lifestyle properties, the Napier estate is broadly at the same level and the New Zealand average values (+3%) despite the LV component being only 88% of the NZ values, and the IV around 18% higher.

The key points are:

- The distribution of properties across the value bands is highly concentrated, with 18% of dwellings falling in the $350,000 to $399,000 band. The bulk (51%) of properties are concentrated around the $300,000-$500,000 band.
- Residential dwellings show a slightly wider spread, with the distribution covering a wider range. Around three quarters (85%) of residential dwellings are in the sub-$700,000 band.
- Apartments account for 11% of the dwelling stock and the overall value distribution is lower than that of residential dwellings, mostly (71%) falling in the $200,000-400,000 price bands.
- Eighty-five per cent of apartments are valued in the sub-$500,000 mark.
- In contrast to apartments, lifestyle properties fall in the higher value bands. The patterns mirror those identified in Hastings. While the distribution is not as concentrated in a small number of value bands, the overall distribution is towards the higher bands. More than 86% of lifestyle properties are valued in the +$650,000 bands. Lifestyle properties account for 2% of all dwellings.

Appendix 5 provides additional information about the local real estate market and shows how it compares against NZ, as a whole, in terms of the total value distribution. It also shows the relativity of LV and VoI (as the component parts of value) across the value bands.

3.2 Dwelling Value Trends

The increase in NZ's house prices is well documented and the recent increase is substantial. Looking back over the past two decades or so, shows that since 2000, residential property values have increased significantly throughout New Zealand. The increase in residential prices appears to be a long process and has been driven by several factors:

- The ease of accessing finance,
- high consumer confidence (especially in the lead-up to the GFC),
- constraints on construction capacity,
- strong inward migration,

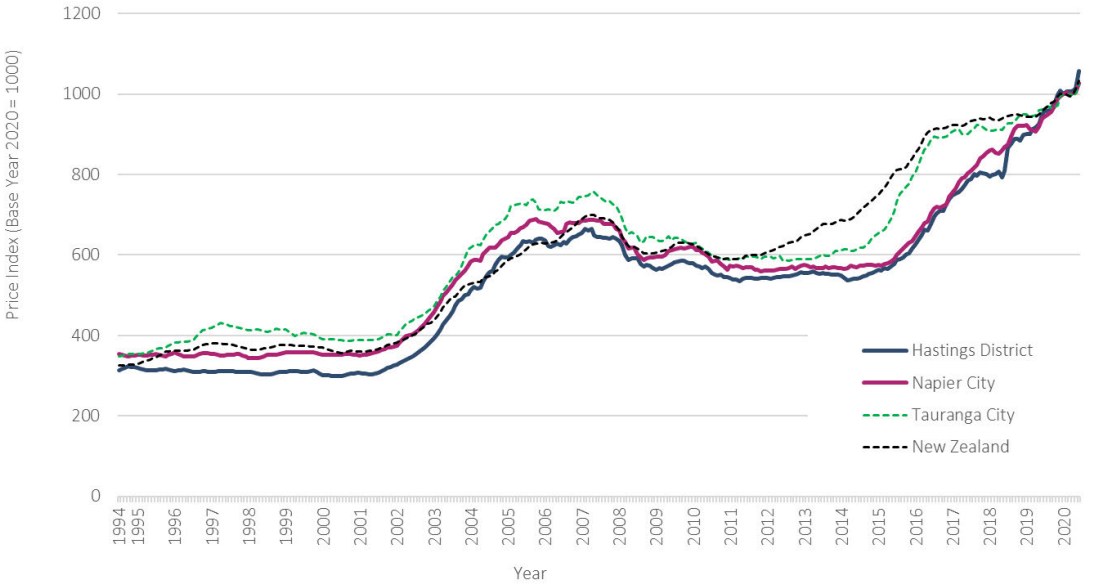
- overseas investment in New Zealand's housing market (until 2018),
- interest rates (currently very low) and
- the tax policy and environment.

Increases in the property values have been witnessed across all NZ but the scale and speed of the shifts have varied. Mean housing values in Napier City and Hasting District have been identified from the CoreLogic residential property index, which offers monthly data across 125 locations. The key changes over the past two decades or so are summarised in Table 3-3 and Figure 3-3 shows the relative shifts in property values. The table shows mean values in both nominal (dollars of the day) and real terms (CPI-adjusted showing values in $2020).

Table 3-3: Napier City and Hastings District Residential Property Values (Change)

Area	Indicator	June 2000	June 2008	June 2012	June 2015	June 2018	June 2019	June 2020	Increase				
									Since 2000 %	Since 2000 %pa	Last 5 Years %	Last 2 Years %	Inc Last 1 Year %
Hastings District	Nominal	$117	$308	$291	$310	$452	$522	$588	503%	8.4%	90%	30%	13%
	Real (CPI adj)	$177	$373	$319	$331	$467	$530	$588	332%	6.2%	78%	26%	11%
Napier City	Nominal	$143	$335	$314	$330	$512	$558	$614	429%	7.6%	86%	20%	10%
	Real (CPI adj)	$216	$406	$345	$353	$529	$566	$614	284%	5.4%	74%	16%	9%
Tauranga City	Nominal	$205	$463	$431	$486	$700	$744	$94	387%	7.0%	63%	13%	7%
	Real (CPI adj)	$310	$560	$474	$519	$722	$755	$794	256%	4.8%	53%	10%	5%
New Zealand	Nominal	$180	$402	$408	$518	$674	$687	$738	410%	7.3%	42%	9%	7%
	Real (CPI adj)	$272	$487	$448	$554	$695	$697	$738	271%	5.1%	33%	6%	6%

Figure 3-3: Napier, Hastings Residential Property Value Index (1994-2020)



Notable features are:

a. Over the past twenty years, nominal prices have increased by 503% (5 times) for Hastings and 429% (4.2 times) for Napier. The rate of change for both areas was higher than that observed across NZ where nominal prices have increased by 410% over the same period.
b. In real terms (accounting for inflation), the Hastings market shifted 332% since 2000 and the Napier market moved by 284%. The shift for both was higher than the NZ level movements where the real price shift was 271%. This highlights the strong performance of the local market and the overall increase in property values over the long term.
c. It is, however, evident that the price shifts have occurred in two distinct periods – the years before the Global Financial Crises and more recently in the period from around 2015.
d. In the past 5 years, both Hastings and Napier have seen very strong price increases. In real terms, prices have increased by 78% and 74% for Hastings and Napier, respectively. This is higher than the 33% recorded across the NZ property estate for the same period. In fact, the increase is more than double the NZ rate. This underlines the relative attractiveness of the local markets, as well as the relatively low base from which the growth occurred (i.e., the properties were comparatively cheaper).
e. The strong upward movement in the property values over the past 2-3 years (and the past 18 months) is well publicized and the available data confirms the scale and rate of change. In real terms, the Hastings values have increased by 11% and Napier values increased by 9% in the year to June. Again, the shift is higher than the NZ trends (+6%).

These patterns are considered further in the examination of housing affordability, and consideration of the role of planning in the operation of land and development markets (later in the report).

3.2.1 Land Value as share of Total Price

The relationship between land values and total price is an indicator of how local planning activity and the market interact over time. It also provides a way to consider the cost changes over time. Figure 3-4 shows the land value as a share of capital value (as an average) across a selection of NPS-UD urban economies. A core way in which this measure can be affected by local planning parameters is through the densities enabled under the Plan. This includes the higher density dwelling typologies and level of intensification enabled within the existing urban area as well as densities across new areas of greenfield expansion. These range from minimum lot sizes for standalone dwellings up to the height limits for vertical apartment buildings.

Growth in the share of land value is generally expected through time for cities both in aggregate as well as at the individual property level. This is expected to occur in markets that are both constrained and unconstrained by any local planning provisions. When a dwelling is constructed on a lot, the land value continues to rise through time as the economy increases in size, and as relative positioning of the property within the overall market continues to gradually improve through time as it is relatively more central, and the overall population demand base continues to expand relative to the geographic size of the city. This is an important driver of urban redevelopment processes where it becomes feasible in the future to redevelop parcels to a higher intensity.

Figure 3-4: Land value as percentage of capital value (Selected NPS-UD Councils)

This trend is expected to occur for any growing city where the measure is conducted across the entire housing stock in aggregate, in the way the data is provided on the Urban Development Dashboard. In any year, the addition of new dwelling stock to an urban economy is only a small share relative to the existing base. Therefore, the trend in this measure is influenced by the large relative impact of the existing housing stock base.

Over a longer time period, if significant proportions of the existing dwelling stock have been redeveloped or intensified (at significantly higher densities), then the land value share may decrease slightly. However, as new dwellings are constructed, the existing estate continues to age, and the size of the economy increases. Both effects act to push up the land value as a share of total value. While shifts may be observed at a highly localised level - for instance, a high amenity/accessible area historically developed at lower densities may see a change following intensification. However, the process is driven by the rate of growth in the economy, and absent major disasters, the housing estate is added to usually at a rate of less than 1.5% pa. This means the passage of time can generally be expected to offset much of any change at the margin.

Accordingly, the land value share is of some relevance in relation to additions to the dwelling estate - newly constructed dwellings – as an indicator of the effect of local planning conditions. That may be assessed in relation to the maximum densities and mix of dwelling typologies enabled in the Plan. It is generally not appropriate as a method for assessing the total estate[39].

The information is provided for each urban area in aggregate. It shows that the share of total value as land value has generally increased through time across the longer-term in most of the main urban economies. The data used to inform the graph shows considerable variation within proximate points in time.

[39] There are limitations to this PCR method, including its core assumption of some 'ideal' land value share, but more fundamentally from its built in assumptions that the current dwelling accounts for all of the value of land, and therefore that the current dwelling must represent the maximum development intensity possible on the land (otherwise there would be other factors, including potential for intensification which would influence land value. The consequent assumption that every residential lot in a city is already developed to its maximum potential causes substantial distortions, especially in relation to a city's growth potential if all growth must be greenfield. The research experience in New Zealand including for HBA work shows instead that well over 80% of already developed sites have potential for intensification.

The obvious difficulty is that by taking the average across the entire dwelling estate, when only a small share of the estate represents the current trends, then any city will show substantial potential for intensification. This is a given.

The HBA assessment has found that the planning provisions in Hastings and Napier enables a shift towards more intensive land use (smaller lots) over time. This is especially relevant in Napier, where the effective lot sizes associated with standalone dwellings has been steadily decreasing. Notwithstanding the above points, the land value share of overall price has remained relatively constant over the past 15 years or so. The ratio has been varying between 40% and 50% since 2006. In the period leading up to 2006, the ratio has been tracking up from the low 30% before stabilising. Importantly, this ratio covers the entire estate, meaning that 'old' sections with large lots and small dwellings are included.

3.3 Additions to the estate (new dwellings)

The second component of this chapter deals with the movements and patterns associated with the construction section, i.e., the type and quantum of additions to the dwelling estate. This shows how current trends in dwelling consents are translating to new dwellings, and how consents correspond to residential properties, by type and value. An underlying aspect of the modelling is to consider the observed relationships between land values and improvement values. These relationships are important because it drives investment decisions in the real estate market. This analysis is critical for understanding changes and additions to the dwelling estate, going forward. The analysis draws on consent data for the short-, medium- and longer-term past. The findings are applied to projected new dwellings, to understand their likely distribution by type and value, on the basis that recent trends in consents are a strong indicator of what is currently feasible in the market. Appendix 6 provides additional detail about the process that was followed and offers additional figures to illustrate key points.

Recent trends in consenting are taken as a general indicator of feasibility, recognising that in most council areas a high proportion of consented builds progress to completions, and that indicates general feasibility especially when considered over the medium term.

The section provides information about the recent development trends and patterns (based on consent data), and looks at:

- Trends in consented size (m^2),
- Trends in consented values ($), and
- The mix in dwelling types.

3.3.1 Observed patterns – Hastings

Development patterns over the last decade are illustrated using residential dwelling consent data. This provides an indication of the scale and nature of development activity aimed at satisfying residential demand.

The scale and nature of new dwelling consents in Hastings District since 1996 is shown in Figure 3-5. The historic building cycle is clearly visible with a high growth period in the early 2000s followed by the GFC and then the recent uptick in development. Overall, detached houses dominate activity. Town houses and higher density typologies form a small portion of the overall delivery. A noticeable short-term movement is the lift in consents associated with retirement dwellings. While an ongoing feature, the data reveals a strong increase

in investments in the retirement sector. Apartment development activity does not show up in historic development patterns.

Figure 3-5: Consent by type (Hastings)

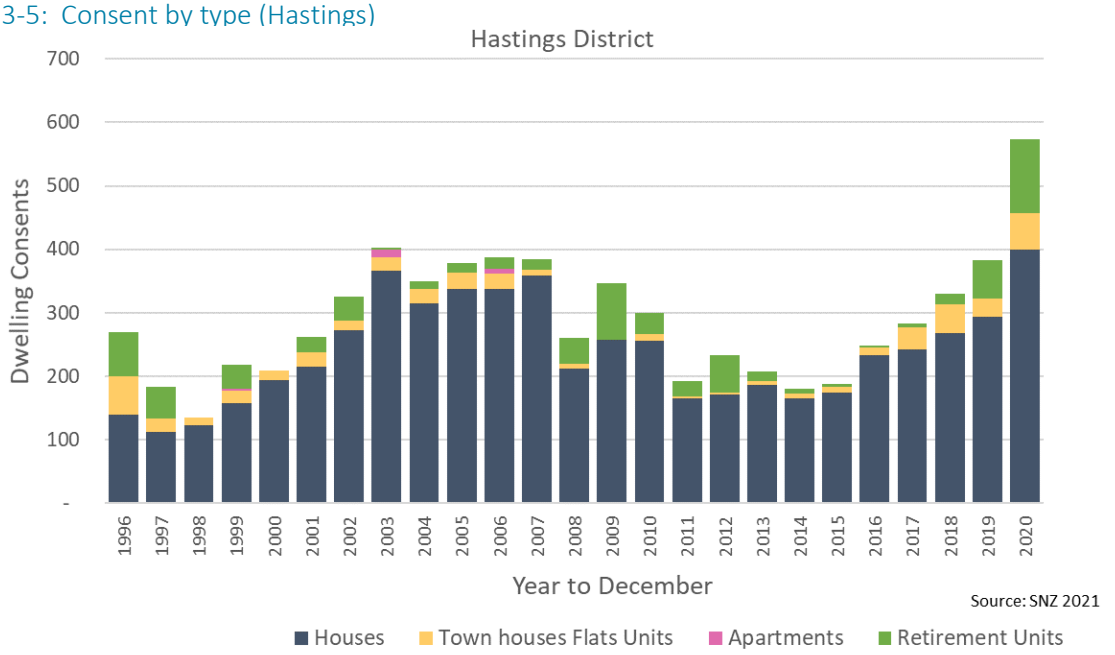


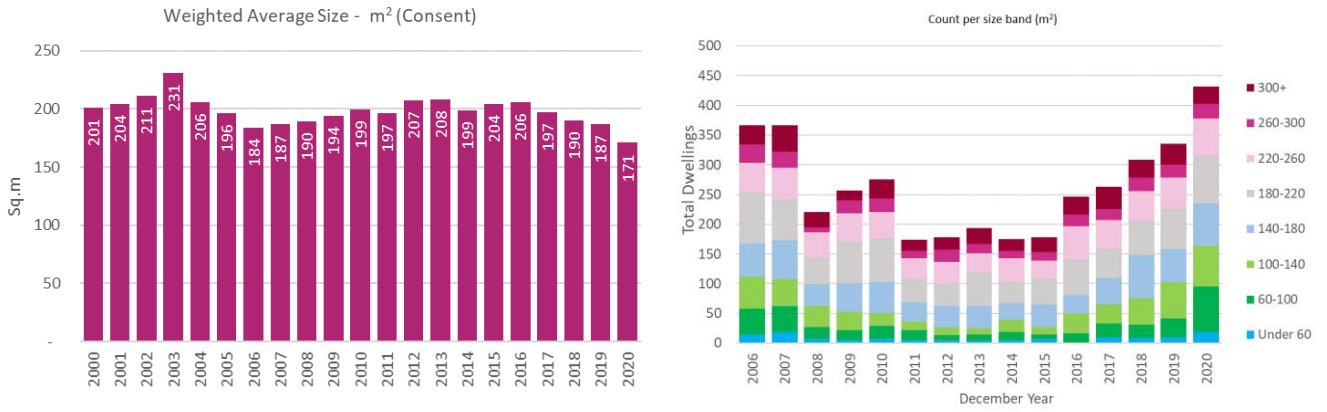
Table 3-4 provides aggregate data covering the 2016-2020 period (note the data has been aggregated). The overall value of consent activity is dominated by the residential (house) segment. The total value of the investment in this segment over the past five year is $694m and the total floor area consented is put at over 290,900m^2. The average size of the dwellings (total) over the time was 190m^2, but houses had a slightly higher footprint. The average size of houses was 205m^2 compared to 160m^2 for retirement dwellings. With reference to the construction costs, the average value (after adjusting for inflation) is put at $2,345/m^2. The value for retirement units is marginally higher ($2,369/m^2) and houses is also higher at $2,357/m^2.

Table 3-4: Consent parameters (Hastings)

Parameter	Houses	Town houses Flats Units	Apartments	Retirement Units	Total Dwellings
2016-2020 Period					
Number of Consents	1,437	180	-	201	1,818
Total Value of Consents ($m)	$675	$42	$-	$62	$779
Total Value (Real $m) 2020	$694	$44	$-	$63	$800
Floor Area of Consents (sqm)	290,916	19,789	-	25,297	336,002
Mean Value of Consents ($000)	$466	$241	$-	$355	$428
Mean Real Value of Consents ($000)	$481	$250	$-	$368	$443
Mean Floor Area of Consents (sqm)	205	118	-	160	190
Mean Value $ per Sqm	$2,286	$2,096	$-	$2,297	$2,274
Mean Real Value $2020 per Sqm	$2,357	$2,161	$-	$2,369	$2,345

It is important to note that the above table shows the average values across different timeframes and is historic. Therefore, it does not reflect the high growth rates recorded over the past 15 months or so. Figure 3-6 shows the trends for the weighted average size of residential consents and the distribution across value bands.

Figure 3-6: Hastings District (consent trends)



The data suggests that the overall size of the dwellings being consented is showing a slow downward trend. A part of the reason for this decline is the change in the mix of properties. As shown earlier, the smaller typologies are starting to account for a growing share of the total development. Therefore, the gradual decline in average size related to the increase in retirement accommodation and higher density housing (recorded as townhouses, flats, and units). In terms of the overall size, trends for standalone dwellings (the stacked bar-chart on the right) show that in the post-GFC period, the overall size of dwellings remained relatively range bound. The smaller dwellings in the sub-140m^2 (green shades and below) remained muted and saw some recovery in recent years. However, the upper end of the market, with large(r) dwellings (+220m^2) experienced strong growth. A potential reason for this is the need to maximise the return on land values. That is, in order to generate a sufficient return on the land investment, developers have to use the land as intensively as practical. This leads to decisions favouring relatively large dwellings (relative to sites).

The overall value of residential consents has remained broadly constant, with most consents falling in the $400,000-$500,000 band. The past few years have seen a slight shift downward in the overall value band (Table 3-5).

Table 3-5: Hastings Dwelling Consent by value band

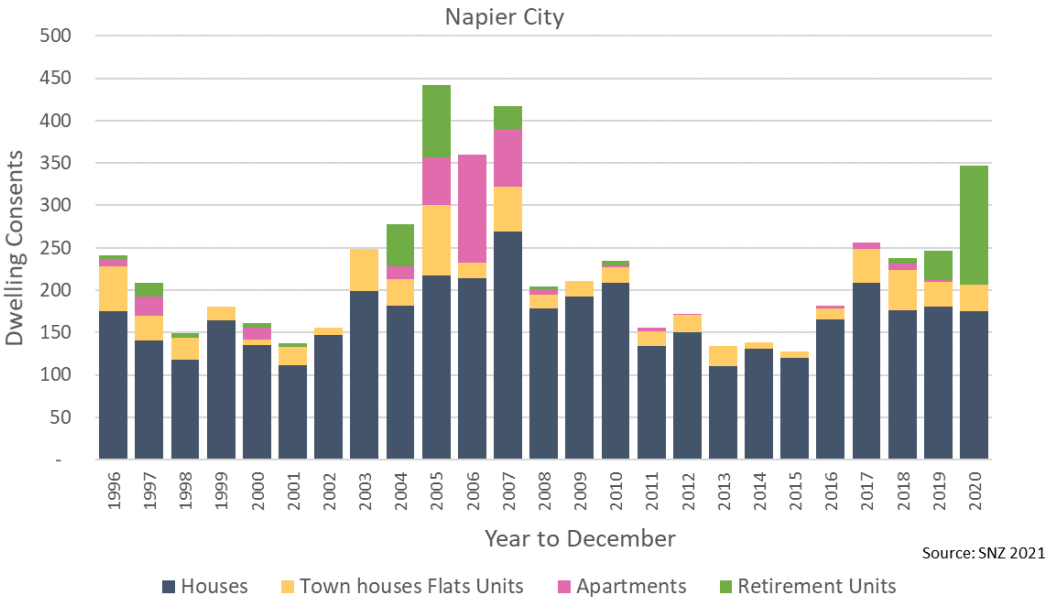
Value Band	2013	2014	2015	2016	2017	2018	2019	2020
$0,000 - $100,000	0%	0%	1%	0%	0%	1%	1%	1%
$100,000 - $200,000	12%	8%	4%	6%	6%	6%	3%	2%
$200,000 - $300,000	16%	21%	18%	16%	16%	13%	21%	39%
$300,000 - $400,000	13%	26%	24%	17%	16%	27%	21%	14%
$400,000 - $500,000	35%	23%	30%	36%	28%	23%	18%	20%
$500,000 - $600,000	10%	12%	11%	13%	14%	15%	18%	7%
$600,000 - $700,000	7%	1%	5%	5%	5%	4%	5%	11%
$700,000 - $800,000	2%	6%	2%	1%	3%	5%	5%	0%
$800,000 - $900,000	3%	1%	1%	1%	6%	2%	4%	2%
$900,000 - $1.0M	0%	0%	1%	3%	2%	2%	0%	2%
$1.0M - $1.1M	0%	1%	1%	0%	0%	1%	0%	0%
$1.1M - $1.2M	0%	0%	0%	1%	1%	1%	1%	0%
$1.2M - $1.3M	0%	0%	1%	1%	1%	0%	2%	1%
$1.3M - $1.4M	0%	2%	1%	0%	0%	0%	0%	0%
$1.4M +	0%	1%	0%	0%	0%	0%	0%	0%

However, this downward shift is caused by a strong lift in the $200,000 – $300,000 band and does not mean that the overall number of consents in the higher value bands have fallen away. The total consents have remained on an upward trend since 2014. Despite the large number of consents in the $200,000-$300,000 band, and the resulting increasing share of consents in the sub $300,000-value bands, recent trends show ongoing stability around the $300,000 – to $600,000 mark. An increase in the higher value consents (+$1.0m) is observed but this shift is associated with a larger economy and is not viewed as a step-change in investment patterns. Appendix 7 provides additional information and a high-level discussion about the consent patterns in Hastings.

3.3.2 Observed patterns – Napier

The development trends observed in Napier's residential market show a positive landscape. Figure 3-7 reflects the patterns of dwelling consents going back to 1996. Napier experienced a building boom during the early 2000s, with a mix of residential typologies delivered. During 2004-2007, the City saw a large lift in consents for retirement accommodation, flats, and townhouses, as well as apartments. During these years, these typologies accounted for almost half of the consents.

Figure 3-7: Consents over time (Napier)



In the post-GFC environment, the consents trended back to standalone dwellings, with little additional activity for the higher density dwellings. Over the past five years, since 2016, an uptick in townhouses and flats is identified. More recently, there appears to be a strong uplift increase in the consents for retirement dwellings. Table 3-6 reflects consent parameters for Napier as recorded over the 2016-2020 period.

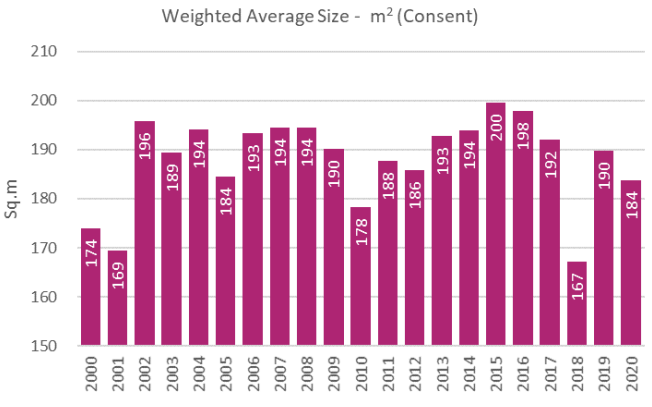
Table 3-6: Consent Parameters (Napier)

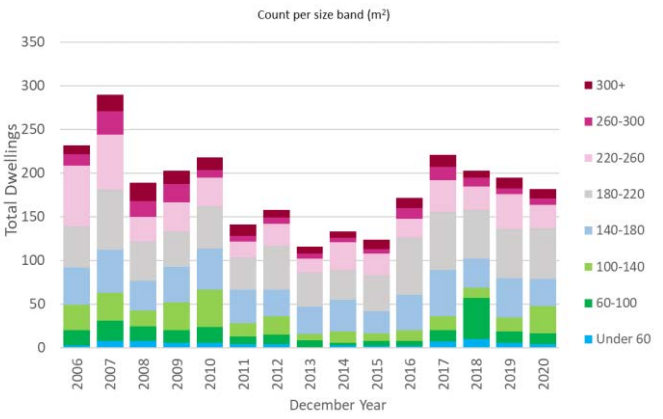
Parameter	Houses	Town houses Flats Units	Apartments	Retirement Units	Total Dwellings
2016-2020 Period					
Number of Consents	907	161	20	181	1,269
Total Value of Consents ($m)	$375	$33	$8	$33	$449
Total Value (Real $m) 2020	$387	$34	$9	$34	$463
Floor Area of Consents (sqm)	175,548	16,454	4,714	18,563	215,279
Mean Value of Consents ($000)	$414	$215	$316	$126	$356
Mean Real Value of Consents ($000)	$427	$221	$328	$128	$368
Mean Floor Area of Consents (sqm)	193	115	167	62	173
Mean Value $ per Sqm	$2,147	$1,972	$1,549	$1,204	$2,079
Mean Real Value $2020 per Sqm	$2,213	$2,031	$1,612	$1,225	$2,145

Standalone houses dominate the overall consent activity and are responsible for 71% of consents. As expected, this segment accounts for the largest share of consent activity. In real terms (2020), standalone houses accounted for $375m of the $463m of total residential consent activity. The total floor area associated with consents is also directly related to the standalone activity – responsible for 82% of the consented floor area.

On a per consent basis, the mean value for standalone dwellings is estimated at $427,000. This is almost double the value for town houses ($221,000). Apartments are more expensive than town houses ($328,000). This difference could be down to the type of construction and the number of levels in apartment buildings. Normally, higher buildings are more expensive than low-rise options because of additional requirements around foundations, seismic requirements and so forth. However, this would need to be confirmed to determine if that is the cost driver in this instance. The average cost per meter is $2,213 for standalone dwellings, and this cost comes down for the other types, dropping to $1,225 for retirement accommodation. In terms of area, the standalone dwellings have the largest area (average over 5 years). The weighted average size of dwellings consents (across all typologies) has been reasonably volatile (see Figure 3-8).

Figure 3-8: Napier City (consent trends)





The modelling suggests that the weighted average size of dwelling consents is tracking down. This is a function of the mix of developments seeking consent. Nevertheless, the size of consents has trended between 180m^2 and 200 m^2 for the past decade or so. The relative distribution of the size (figure on the right) reflects the

gradual decline in the count of dwelling consents and a breakdown by size bands. The mid-sized bands have remained constant through time (pink, grey and light blue), and apart from the relatively large cohort of small sizes (60-100m^2) in 2018, the overall size distribution has remained stable. The one-off consent activity in 2018 for the 60-100m^2 is a possible reason for the comparatively low weighted average size (167m^2; figure on the left).

Table 3-7 shows the distribution of consents over different value bands, over time.

Table 3-7: Napier Dwelling Consent by value band

Value Band	2013	2014	2015	2016	2017	2018	2019	2020
$0,000 - $100,000	0%	1%	0%	0%	0%	1%	1%	2%
$100,000 - $200,000	10%	6%	3%	2%	13%	9%	2%	1%
$200,000 - $300,000	32%	24%	14%	13%	12%	25%	25%	48%
$300,000 - $400,000	41%	38%	33%	45%	28%	19%	9%	8%
$400,000 - $500,000	11%	25%	36%	29%	28%	27%	42%	16%
$500,000 - $600,000	0%	2%	10%	0%	10%	8%	12%	14%
$600,000 - $700,000	5%	2%	0%	6%	4%	8%	0%	6%
$700,000 - $800,000	1%	0%	0%	3%	1%	2%	3%	3%
$800,000 - $900,000	1%	2%	1%	1%	2%	0%	2%	2%
$900,000 - $1.0M	1%	0%	2%	0%	0%	0%	0%	0%
$1.0M - $1.1M	1%	0%	0%	0%	0%	0%	0%	0%
$1.1M - $1.2M	0%	0%	0%	0%	1%	0%	0%	0%
$1.2M - $1.3M	0%	0%	0%	0%	0%	0%	0%	0%
$1.3M - $1.4M	0%	0%	1%	1%	0%	0%	0%	1%
$1.4M +	0%	0%	0%	0%	0%	0%	2%	0%

The residential consents in Napier are grouped in the $300,000 to $500,000 bands. However, the uptake of higher density typologies, with lower average values (per consent) has lowered the relative concentration of the consent values. The weighted average value has moved up after remaining relatively flat from 2015 to 2018. The weighted average value peaked at $438,000 in 2019 before being dragged down to $384,000 in 2020 due to a large portion of the consents (48%) falling in the $200,000-$300,000 band. This observation aligns with the lift in retirement dwellings (in 2020).

Appendix 8 provides more detail regarding consents and the observed trends in Napier.

3.4 Current Dwelling Estate in Future

The third component of the *Housing Supply Model* is the assessment of the future dwelling estate. This considers the existing dwelling estate, and the projected "new" dwellings, and provides estimates of the future dwelling estate according to dwelling types and value bands, to assess affordability. Crucially, this part of the analysis is used to provide a broad indication of affordability in the context of development patterns and growth trends. **The information regarding the future estate was not directly linked to the capacity assessment (i.e. the commercially feasible capacity or the reasonably expected to realised capacity). This was because of a need to maintain consistency within the available dataset, and unknowns associated with future housing choices and how households will meet their housing needs (e.g. infill, vacant or redevelopment opportunities). However the core settings and assumptions that were used to estimate the future affordability levels (e.g. income growth, property price changes etc) were applied.**

A key aspect is the examination of likely changes in the values of the existing and new estates, over the NPS-UD time periods. That takes major trends in property values into account when considering what the current estate will be like in the future, in terms of dwelling value patterns[40], and numbers of dwellings in each value band.

The analysis identifies how land value (LV) consistently changes at a different rate from improvement value (IV), growing faster because LV is generally driven by growth in the size of urban economies, while IV grows more slowly or declines in real (inflation-adjusted) terms. These patterns need to be considered to estimate the likely future dwelling estate by value band (for the affordability assessment later in the report) as well as to understand the effects of value changes on building feasibility. This is an input into the commercially feasible assessment.

The distribution of property values in the existing estate, across Napier and Hastings, has been identified for the 2020 base year from the CoreLogic data, and estimated for future years allowing for expected trends in LV and IV over the short, medium, and long term.

Hastings District

The indicated shifts in property values in the existing dwelling estate of Hastings is summarised in Table 3-8. The ongoing increases in land value, together with the (relatively slower) changes in improvement values for the current dwelling estate, would see important shifts in the medium and long terms.

Table 3-8: Hastings Current Estate 2020-2050 - Medium-High Growth

	Total Current Estate				Net change		
	2020	2023	2030	2050	2020-23	2023-30	2030-50
Under $400K	8,410	7130	5470	2100	- 1,280	-1660	-3370
$400-699K	16,550	17060	16610	9700	510	-450	-6910
$700-999	4,630	5210	6380	11710	580	1170	5330
$1000-1300k	1,080	1240	1760	4750	160	520	2990
$1300-1600K	370	380	640	1770	10	260	1130
Over $1600k	370	380	550	1400	10	170	850
SUM	**31,410**	**31400**	**31410**	**31430**	**-10**	**10**	**20**
	Proportion				% change		
Under $400K	27%	23%	17%	7%	-15%	-23%	-62%
$400-699K	53%	54%	53%	31%	3%	-3%	-42%
$700-999	15%	17%	20%	37%	13%	22%	84%
$1000-1300k	3%	4%	6%	15%	15%	42%	170%
$1300-1600K	1%	1%	2%	6%	3%	68%	177%
Over $1600k	1%	1%	2%	4%	3%	45%	155%
SUM	**100%**	**100%**	**100%**	**100%**	**0%**	**0%**	**0%**

Source: ME Housing Demand Model 2021

LV Trend: 2.5%, IV Trend: 0.7%, Construction Cost Trend: 3.5%

Currently, most of the dwelling estate is valued between $400,000 and $699,000 (53%). Another 15% of dwellings are in the $700,000 - $999,000 bands, with around 27% valued at under $400,000. As such, in 2020, only 5% of the current estate is valued in the bands over $1,000,000.

[40] The property values trends over the last two decades, across Tier 1 cities, were considered and used to inform the assessment. CoreLogic datasets have been analysed to understand how land values change over time, relative to improvement values. A consistent, no-change property dataset has been used to remove the effect on improvement values of replacement dwellings or major upgrades which could distort the pattern.

There would be limited change to 2023 because the time for change to take hold is relatively short. However, the values across the current estate start to appreciate. The only major change is the fall in the number of dwellings valued under $400,000, with the value bands above increasing.

By 2030, there is further lift in the values of dwellings from those in the under $400,000 band, this value band is reduced to represent 17% of dwellings, while the 400,000 to $699,000 band is expected to decrease slightly. A result of this, the number of dwellings in the value bands above $700,000 increase steadily – this highlights the gradual upward shift in property values.

Over the long term, by 2050, significant change to the distribution of values within the current dwelling estate is expected. There are further reductions in the number of dwellings within the value bands below $700,000, and 38% of properties will fall below this level. It is important to recognise that the table shows only changes in the value patterns of the existing dwelling estate, and the effects of long-term changes in the property market as land values continued to increase, and improvement values increased but much more slowly.

A faster rate of change in market conditions for both land values and improvement values would see somewhat greater shifts in the medium term, though it is again only in the long term that the existing dwelling estate would show substantially different value patterns from the current. A slower rate of change, including a future where improvement values showed a drop in real terms, would see quite limited changes in the value patterns for the existing estate.

Napier City

The projection of property values of the existing (current estate) Napier City dwelling estate at present and over the short, medium, and long term is shown in Table 3-9. Currently, most dwellings are valued between $400,000 and $700,000 (61%).

Table 3-9: Napier Current Estate 2020-2050 - Medium-High Growth

	Total Current Estate				Net change		
	2020	2023	2030	2050	2020-23	2023-30	2030-50
Under $400K	2,270	2,380	900	210	110	-1,480	-690
$400-699K	15,830	14,730	13,730	5,580	-1,100	-1,000	-8,150
$700-999	5,940	6,680	7,860	12,380	740	1,180	4,520
$1000-1300k	1,130	1,300	2,170	5,070	170	870	2,900
$1300-1600K	380	430	660	1,430	50	230	770
Over $1600k	220	240	420	1,070	20	180	650
SUM	**25,770**	**25,760**	**25,740**	**25,740**	**-10**	**-20**	**-**
	Proportion				% change		
Under $400K	9%	9%	3%	1%	5%	-62%	-77%
$400-699K	61%	57%	53%	22%	-7%	-7%	-59%
$700-999	23%	26%	31%	48%	12%	18%	58%
$1000-1300k	4%	5%	8%	20%	15%	67%	134%
$1300-1600K	1%	2%	3%	6%	13%	53%	117%
Over $1600k	1%	1%	2%	4%	9%	75%	155%
SUM	**100%**	**100%**	**100%**	**100%**	**0%**	**0%**	**0%**

Source: ME Housing Demand Model 2021

While this is somewhat comparable to Hastings, the current estate of Napier is skewed towards the higher value bands to a greater degree. *Note, this analysis is based on the CoreLogic data, and as mentioned earlier,*

some caution is needed. There is a substantial mismatch between the CoreLogic data and Council's rating information. However, the general trends and direction of movement observed will still hold.

In the short term (2023), the current estate is projected to generally move up in value to a small degree. The largest band of $400,000 to $700,000 is projected to represent 1,100 fewer dwellings than 2020, falling to 57% of dwellings. Looking forward, the bands from above $700,000 start to capture a larger share of the total estate.

Across the medium term, the gradual shift continues to 2030. The proportion of the current estate in the bands below $700,000 continues to fall, while the bands above it increase in size, particularly between $700,000 and $1.3m.

Over the long term, significant changes to the value distribution of the current estate are expected. By 2050, the $700,000 to $1m band is expected to be the largest with almost half (48%) of all properties falling in this band. The number of houses valued under $700,000 is expected to fall by over 12,000 dwellings (2020 vs 2050). By 2050, 30% of the current estate dwellings will be valued +$1m, compared to 6% in 2020.

3.4.1 New Estate Values - Outlook

In addition to the future value of current properties, the overall estate will also see new additions (new builds) in response to growing demand. Understanding that new estate and the potential values associated with it, also informs the affordability assessment. Future affordability is a function of construction cost trends, land value trends, and improvement value trends and how these factors combine to form dwelling prices in the future.

We note that a common approach for the NPS-UDC and other studies has been to examine new dwelling price trends for land and construction costs, and project those forward across the total new estate to estimate future values in the short, medium, and long term futures. Some studies have indicated substantial increases in future new dwelling prices.

It is important to recognise that the new estate of Napier and Hastings will be built progressively over time, as it is in any market. The 'new' estate in the medium-term future (2030) will not be dwellings all constructed in 2030 at 2030 prices. Rather, it will be dwellings which were new in 2021 built at 2021 prices (and by 2030 some 9 years old), plus some new in 2022 and built at 2022 prices (and 8 years old) and so on. Hence, the ME model allows for the future additions to be progressively built over the period, and with their values in 2030 and 2050 reflecting the initial cost when built and the age of the dwelling itself, together with the underlying growth in land values expected over the period.

Hastings District

The estimated values of the new dwelling estate for Hastings are shown in Table 3-10. In the short term, the expected additional 1,560 dwellings would be mostly distributed between $400,000 and $999,000, though with a substantial share in the higher value brackets above, and a small proportion (10%) under $400,000 – consistent with dwelling consent trends.

Table 3-10: New Estate by Value Band – Hastings 2020 to 2050 Medium-High Growth (Running totals)

	Total New Dwelling Estate				Net change		
	2020	2023	2030	2050	2020-23	2023-30	2030-50
Under $400K	-	160	260	140	160	100	-120
$400-699K	-	490	1020	880	490	530	-140
$700-999	-	580	1410	2120	580	830	710
$1000-1300k	-	220	990	2020	220	770	1030
$1300-1600K	-	90	380	2720	90	290	2340
Over $1600k	-	20	240	2820	20	220	2580
SUM	**-**	**1560**	**4300**	**10700**	**1560**	**2740**	**6400**
	Proportion				% change		
Under $400K	-	10%	6%	1%	-	63%	-46%
$400-699K	-	31%	24%	8%	-	108%	-14%
$700-999	-	37%	33%	20%	-	143%	50%
$1000-1300k	-	14%	23%	19%	-	350%	104%
$1300-1600K	-	6%	9%	25%	-	322%	616%
Over $1600k	-	1%	6%	26%	-	1100%	1075%
SUM	**-**	**100%**	**100%**	**100%**	**-**	**176%**	**149%**

Source: ME Housing Demand Model 2021
LV Trend: 2.5%, IV Trend: 0.7%, Construction Cost Trend: 3.5%

In the medium term, there would be an additional 2,740 dwellings for 4,300 in total, with their value distribution reflecting the combined effects of new dwellings being built at prevailing prices in the year of construction, plus the ageing of new dwellings once built and the value of those improvements changing in line with the overall trend (around 0.8%/pa), while the land value component of the new estate would change also at the district average (2.0%/y - 2.5%/y). In the medium term, around 30% of new additional dwellings would be under the $700,000 mark, and 38% (around 1,000) over the $1m mark.

In the long term, the additional 10,700 dwellings would be weighted toward the higher value bands, with only around 29% in the under $1,000,000 bands.

Napier City

For Napier, the estimated values of the new dwelling estate are shown in Table 3-11. In the short term, the expected additional 1,090 dwellings would be mostly distributed between $400,000 and $999,000 (72% combined). The remainder split between the higher and lower value brackets above and below, slightly favouring the value band for dwellings under $400,000.

In the medium term, by 2030, there would be an additional 1,580 dwellings for 2,670 in total. As was mentioned for Hastings, the value distribution will reflect the combined effects of new dwellings being built at prevailing prices in the year of construction, plus the ageing of new dwellings once built and the value of those improvements changing in line with the overall trend. In the medium term, the number of dwellings with a value above $700,000 is expected to increase more than for the number of dwellings below this mark.

By 2050, the additional 6,010 dwellings, built over the next three decades, are projected to be weighted toward the higher value bands. However, in comparison to Hastings, it is not expected to change by as much. In the long term, new dwellings are still well spread across the value band, indicating that there may be less upward pressure on dwelling values over time and the price of newly built dwellings may be seen to be relatively constant.

Table 3-11: New Estate by Value Band – Napier 2020 to 2050 Medium-High Growth (Running totals)

	Total New Dwelling Estate				Net change		
	2020	2023	2030	2050	2020-23	2023-30	2030-50
Under $400K	-	180	420	840	180	240	420
$400-699K	-	420	930	2,200	420	510	1,270
$700-999	-	380	990	2,170	380	610	1,180
$1000-1300k	-	90	240	550	90	150	310
$1300-1600K	-	20	90	240	20	70	150
Over $1600k	-	-	-	10	-	-	10
SUM	**-**	**1,090**	**2,670**	**6,010**	**1,090**	**1,580**	**3,340**
	Proportion				% change		
Under $400K	0%	17%	16%	14%		133%	100%
$400-699K	0%	39%	35%	37%		121%	137%
$700-999	0%	35%	37%	36%		161%	119%
$1000-1300k	0%	8%	9%	9%		167%	129%
$1300-1600K	0%	2%	3%	4%		350%	167%
Over $1600k	0%	0%	0%	0%		0%	0%
SUM	**0%**	**100%**	**100%**	**100%**		**145%**	**125%**

Source: ME Housing Demand Model 2021

In the medium term, by 2030, there would be an additional 1,580 dwellings for 2,670 in total. As was mentioned for Hastings, the value distribution will reflect the combined effects of new dwellings being built at prevailing prices in the year of construction, plus the ageing of new dwellings once built and the value of those improvements changing in line with the overall trend. In the medium term, the number of dwellings with a value above $700,000 is expected to increase more than for the number of dwellings below this mark.

By 2050, the additional 6,010 dwellings, built over the next three decades, are projected to be weighted toward the higher value bands. However, in comparison to Hastings, it is not expected to change by as much. In the long term, new dwellings are still well spread across the value band, indicating that there may be less upward pressure on dwelling values over time and the price of newly built dwellings may be seen to be relatively constant.

4 Housing Affordability

Section Summary: Housing affordability is considered based on household incomes, current ownership patterns and property values. Affordability can be defined in several different ways, and this assessment considers both demand and supply. The focus is on non-owner households because households that own a property can afford a property.

Customised Census datasets help to provide an understanding of how dwelling ownership patterns are distributed across demography, ethnicity, and income parameters. The relationships between ownership and rental patterns, across dwelling types are also considered. The future situation is examined by considering demographic shifts, economic trends (price inflation) and so forth. Napier has 8,440 non-owner households and there are 10,150 non-owner households in Hastings. The non-owner households rent through the main market, and 18% and 12% of non-owner households, in Napier and Hastings respectively, are not renting through the private market. Ownership is concentrated in the middle to higher household income bands (+$70,000).

The M.E Housing Affordability Model, shows what households in each income band could afford in terms of mortgage repayments and then compares this against the dwellings in each value band.

As expected, low income households' overall ability to compete in the market is very limited. Households with an income less than $30,000 can theoretically[41] afford a dwelling valued around $150,000 - $200,000 In Napier, few houses (<1%) would be affordable to low-income households. According to Council data, there are around 60 dwellings that fall in this value band. This compares against 3,220 households with <$30,000 annual income. In Hastings, a similar pattern is evident. Households with annual income of $30,000 - $40,000 can afford dwellings in the order of $300,000. The data suggests that there are 2,270 dwellings in the current stock valued up to $300,000. This suggests that the 1,020 non-owner households represent 45% of the demand for dwellings in this value band. There are clear links between affordability limits and different ethnic groups with non-European groups underrepresented in ownership and affordability statistics.

This clearly has housing implications, underlining the need for non-market housing options.

This section examines housing affordability in Napier and Hastings, considering household incomes, current ownership patterns and the current value of residential properties. The assessment also considers the affordability of rental housing. Examining housing affordability is, however, complex and there are several metrics which could be used. For this assessment housing affordability is assessed through the *M.E Housing Affordability Model (2020),* which brings together the demand side *and* the supply side of affordability, currently, and into the future.

A key assumption is that households which currently own a dwelling can afford a dwelling. This puts the focus on the numbers of non-owner households, and their ability to afford a dwelling. It is possible to assess affordability based on details such as household typology, ethnicity, and ability to access and service finance[42]. A standard affordability calculation is used to estimate what value of dwelling, non-owner households may afford, to own or to rent. Customised Census datasets help to provide an understanding of how dwelling ownership patterns are distributed across demography, ethnicity, and income parameters. The relationships between ownership and rental patterns, across dwelling types are also considered. The future situation is

[41] Assuming that a deposit could be saved.
[42] It is assumed 35% of gross household income is needed to service a loan over a 30-year mortgage period, on the assumption that a 20% deposit has been paid.

examined by considering demographic projections to track the changes in household mix, while economic projections are used to account for real (inflation adjusted) income growth.

It is important to recognise that dwelling values are not static, nor are household incomes. Both of these matters are key drivers of affordability. This means that estimates of future affordability need to take account of trends in the land values and in the value of built dwellings (including as the estate ages) while also allowing for real increases in household incomes, earning power and spending power. This approach provides a sound estimate of future shortfalls in housing supply for each value band, meeting a key NPS-UD requirement. In this section a platform for examining future affordability is established.

As mentioned, the focus of the housing affordability assessment is on the non-owner household segment, on the basis that those households which already own a dwelling are reasonably well placed to afford ownership – particularly given the uplift value uplift evident in the last 12-18 months and more which has accrued to existing owners. However, the increase is shifting affordability beyond the ability of non-owners.

4.1 Current Ownership Patterns 2020

The current ownership patterns are described in the next section, dealing with the Napier and Hastings situations separately.

Napier City

In Napier there are an estimated 8,440 non-owner households, who are predominantly renting in the private market. Kāinga Ora data indicates that the state provider manages approximately 1,499 properties[43] in Napier. This would suggest that around 82% of non-owner households rent through the private market. Table 4-1 provides a breakdown of ownership across value bands.

Table 4-1: Dwelling Ownership by Income levels (Napier)

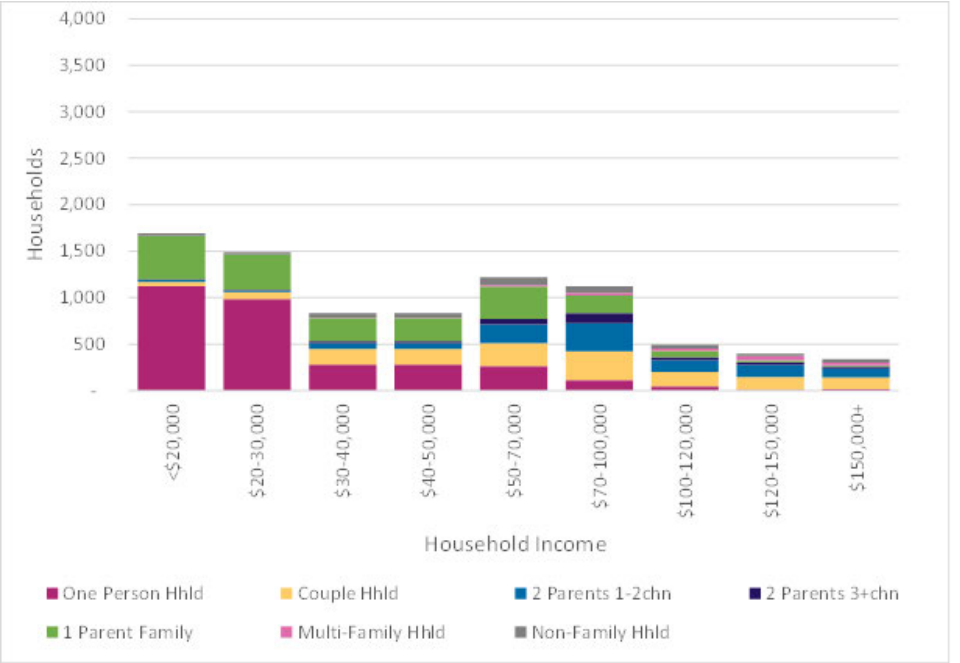
2020					
Household Income	Owner Households	Non-Owner Households	Total	Owner Households %	Non-Owner Households %
<$20,000	1,080	1,470	2,550	42%	58%
$20-30,000	2,120	1,750	3,870	55%	45%
$30-40,000	1,610	860	2,470	65%	35%
$40-50,000	1,610	840	2,450	66%	34%
$50-70,000	2,630	1,260	3,890	68%	32%
$70-100,000	3,110	1,050	4,160	75%	25%
$100-120,000	1,910	470	2,380	80%	20%
$120-150,000	1,650	370	2,020	82%	18%
$150,000+	2,220	370	2,590	86%	14%
Total	17,940	8,440	26,380	68%	32%

[43] https://kaingaora.govt.nz/assets/Publications/Managed-stock/Managed-Stock-TLA-March-2021.pdf. Covering the March year 2021.

The main observations about the current dwelling ownership patterns in Napier are:

- Around a third of households do not own the dwellings, i.e., they are renters. The data puts this at 8,440 households or 32% of households.
- Nearly half (43%) of owner households have annual incomes of $70,000 to $120,000, while non-owner households are concentrated in lower income ranges, i.e., 41% have incomes between $20,000 and $50,000 per annum.
- Except for households in the lowest income bracket, more than half of all households in each income band own their homes. These rates show historic investment decisions and generational patterns.
- At the higher end of the spectrum ($150,000+ incomes), owner households make up 86% of total households in that income range. The balance 14% of households in the high-income band, could afford ownership, and it is assumed that non-ownership is by choice, or the dwellings are held through another legal vehicle (e.g. trust).

Figure 4-1: Non-Owner households, by type of household and income band



Hastings District

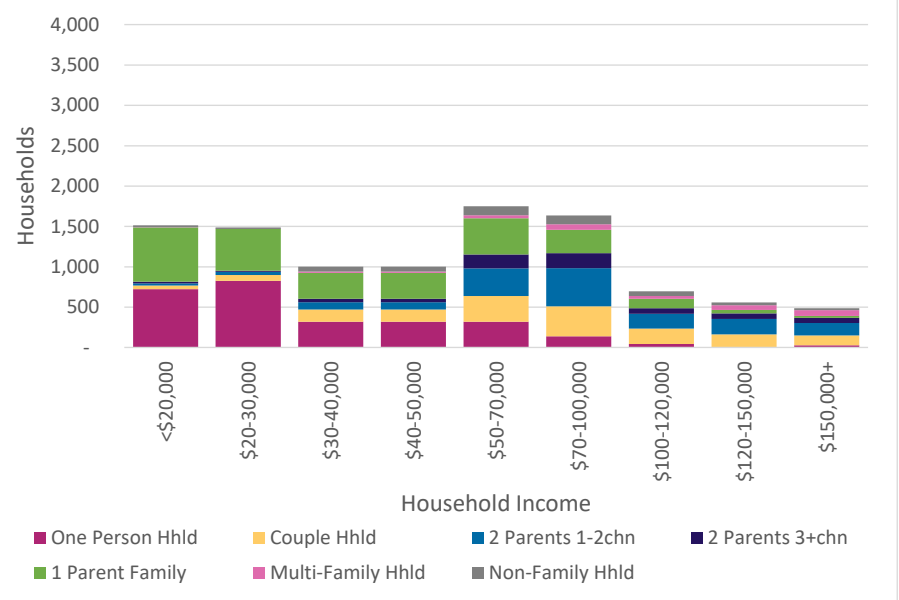
In Hastings there are an estimated 10,150 non-owner households (see and Table 4-2 and Figure 4-2). This equals a third of households. Kāinga Ora data indicates, as of 31 March 2021, there were 1,202 properties[44] used for social housing and accommodation. Combined with other data, this suggests the majority (88%) of non-owner households rent in the private market.

[44] https://kaingaora.govt.nz/assets/Publications/Managed-stock/Managed-Stock-TLA-March-2021.pdf

Table 4-2: Dwelling ownership by income band (Hastings)

2020					
Household Income	Owner Households	Non-Owner Households	Total	Owner Households %	Non-Owner Households %
<$20,000	1,040	1,550	2,590	40%	60%
$20-30,000	1,990	1,810	3,800	52%	48%
$30-40,000	1,610	1,020	2,630	61%	39%
$40-50,000	1,610	1,000	2,610	62%	38%
$50-70,000	3,120	1,670	4,790	65%	35%
$70-100,000	4,060	1,470	5,530	73%	27%
$100-120,000	2,510	620	3,130	80%	20%
$120-150,000	2,160	490	2,650	82%	18%
$150,000+	3,380	520	3,900	87%	13%
Total	21,480	10,150	31,630	68%	32%

Figure 4-2: Non-owner households by type and income band (Hastings 2020)



The main observations are:

- Owner households are concentrated in middle to high income bands ($70,000 to $120,000 per annum), making up 41% of total owner households in Hastings.
- Non-owner households on the other hand, are concentrated in lower income ranges, i.e. 38% of non-owner households have incomes between $20,000 and $50,000 per annum.
- Ownership rates are relatively high across all income bands. In most income bands more than half of households own their homes, with the exception of households earning less than $20,000. In this income band, 40% of households own dwellings and 60% do not. The share of dwellings owned increase as the value bands increase. In the +$100,000 bands, the ownership rates are above 80% and it increases to higher shares as income bands move up.

- At the higher end of the spectrum ($150,000+ per annum), 86% of households in this income bracket, own their homes.

The next step in the process is to consider what non-owner households in Napier and Hastings, can afford in terms of dwelling ownership or dwelling rental.

4.1.1 Ownership Affordability (2020)

The *M.E Housing Affordability Model,* shows what households in each income band could afford in terms of mortgage repayments and then compares this against the dwellings in each value band. For example, whether households in the lower-middle income bands could afford dwellings at the 15th value percentile, or at the 30th value percentile, and how many dwellings there are in those value bands[45]. We note that the affordability assessment is based on the current estate's values as reported by CoreLogic. However, the distribution of properties across value bands differs considerably from the rating data. The reason for the difference is unknown. The affordability data is reported using tables and figures that show:

- The household income band in $2020-terms, and the number of non-owner households in each band.
- The dwelling value percentile which would be affordable for a household on this income band.
- The number of dwellings in the percentile band plus all lower value bands that a household could afford (column heading '*No. of Dwellings Can Afford'*).
- The share of dwellings in the value band which would be required to enable all households in an income band to become owners (column heading *'Share % of Dwgs Required'*).

Napier City

Table 4-3 presents the affordability parameters for non-owner households, specifically the number of households and the level (upper limit) at which they could afford a dwelling compared with the number of dwellings in the current estate that meet that threshold. The data was derived by combining Council's rating data (relative distribution over value bands) and CoreLogic data (overall totals and counts). The data is also shown graphically (Figure 4-3) The left graph shows the number of non-owner households in each income band (bars) and the dwelling value percentile which those households may afford. The right graph shows the numbers of households, and the current dwelling prices (upper dwelling value in $'000) which those households may afford.

The table shows the housing options and affordability across households by income bands. As an example, households earning between $50,000 and $70,000 could afford a dwelling up to the 26th percentile of property values (the lowest 26% of dwellings by value) or a mortgage in the order of $500,000 (if they have an adequate deposit). That implies that for the 1,260 (non-owner) households earning between $50,000 and $70,000, there are around 6,620 dwellings[46] in value bands which are affordable. In other words, if all 6,620 dwellings in that band came on to the market, all 1,260 households could become owners if they wanted to. This suggests the demand from these households would represent approximately 19% of total dwelling supply up

[45] In the current estate.
[46] From the current estate

to that value band. Obviously, the ownership options are wider for households in the higher income bands. It is further key to consider that there are other demand sources (e.g., investors, and out of region households).

Table 4-3: Dwelling affordability – Napier (2020)

Household Income	2020				
	Non-Owner Households	Dwelling Percentile Value Affordable (%)	Dwelling Value Affordable ($000)	No. of Dwellings Can Afford	Share % of Dwellings Required
<$20,000(1)	1,470	0%	$ 150	10	100+%
$20-30,000	1,750	0%	$ 200	60	100+%
$30-40,000	860	1%	$ 300	260	100+%
$40-50,000	840	3%	$ 350	740	100+%
$50-70,000	1,260	26%	$ 500	6,620	19%
$70-100,000	1,050	70%	$ 700	18,080	6%
$100-120,000	470	89%	$ 900	22,940	2%
$120-150,000	370	94%	$ 1,050	24,310	2%
$150,000+	370	98%	$ 1,400	25,320	1%

Source: ME Housing Demand Model 2021

(1) includes 729 Kainga Ora client households

Figure 4-3: Housing affordability by percentile and Value Band (Napier, 2020)

As expected, there are very few houses (<1%) which would be affordable to low-income households. Households with an income less than $30,000 can theoretically afford a dwelling valued around $150,000 - $200,000. However, there are only 60 of these in the current stock (according to council rating data). Currently, around 3,220 households have an income less than $30,000 annually and this clearly has housing implications, underlining the need for non-market housing options.

Hastings District

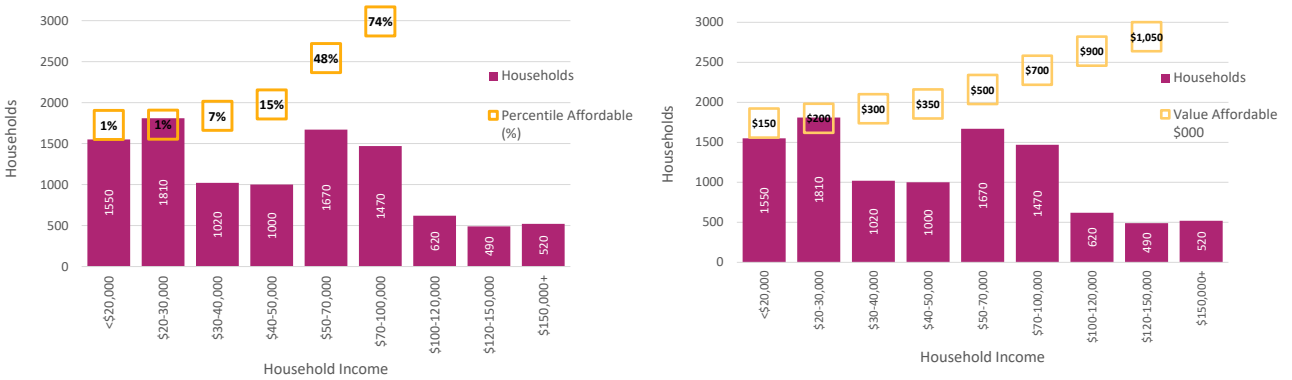
Table 4-4 shows affordability for Hastings district and it follows the same structure as outlined above. Figure 4-4 illustrates the information and patterns graphically. The same general patterns identified for Napier apply. For example, households with annual income between $30,000 and $40,000 can afford dwellings up to the 7th percentile or in the order of $300,000. According to the data from CoreLogic, there are 2,270 dwellings in the current stock valued up to this threshold. This suggests that the 1,020 non-owner households represent 45% of the demand for dwellings in this value band.

Table 4-4: Dwelling affordability parameters – Hastings (2020)

Household Income	2020				
	Non-Owner Households	Percentile Affordable (%)	Value Affordable ($000)	No. of Dwellings Can Afford	Share % of Dwgs Required
<$20,000	1,550	1%	$ 150	220	100+%
$20-30,000	1,810	1%	$ 200	300	100+%
$30-40,000	1,020	7%	$ 300	2,270	45%
$40-50,000	1,000	15%	$ 350	4,790	21%
$50-70,000	1,670	48%	$ 500	15,180	11%
$70-100,000	1,470	74%	$ 700	23,380	6%
$100-120,000	620	87%	$ 900	27,250	2%
$120-150,000	490	91%	$ 1,050	28,650	2%
$150,000+	520	96%	$ 1,400	30,190	2%

Source: ME Housing Demand Model 2021

Figure 4-4: Housing Affordability by Percentile and Value Band – Hastings (2020)



4.1.2 Sales price and rental patterns (2020)

The NPS-UD requires detail on rental patterns and rental affordability. This assessment draws on information from MBIE (2021) on rental levels by council area and compares the Napier and Hastings trends against NZ and other locations around NZ.

The following graphs (Figure 4-5 and Figure 4-6) show the change in dwelling sales prices and rents over time. These indicators reflect movements over different housing markets. Both graphs highlight the trend of price growth in the main housing markets. Faster growth across all the areas is noticeable in the periods from around 2002 to 2007 and again from 2014 to 2019, which correspond with periods of higher net migration.

The changes in Napier-Hastings's dwelling prices and rents across the last 5 to 10 years, have followed similar movements compared to those experienced in other urban economies (except for Greater Christchurch, due to the 2011 earthquake), although, it appears that the larger markets and those with higher demand, have prices and rents which move up over time. However, the data shows that the Napier-Hastings area has seen strong growth over the recent past, bringing values broadly in line with other areas, like Hamilton and Nelson/Tasman. **The rate of change since 2016/17 in Hastings-Napier has been amongst the fastest across all locations around NZ.**

Figure 4-5: Selected NZ Urban Economies Sales Price Trends (12 month rolling, actual)

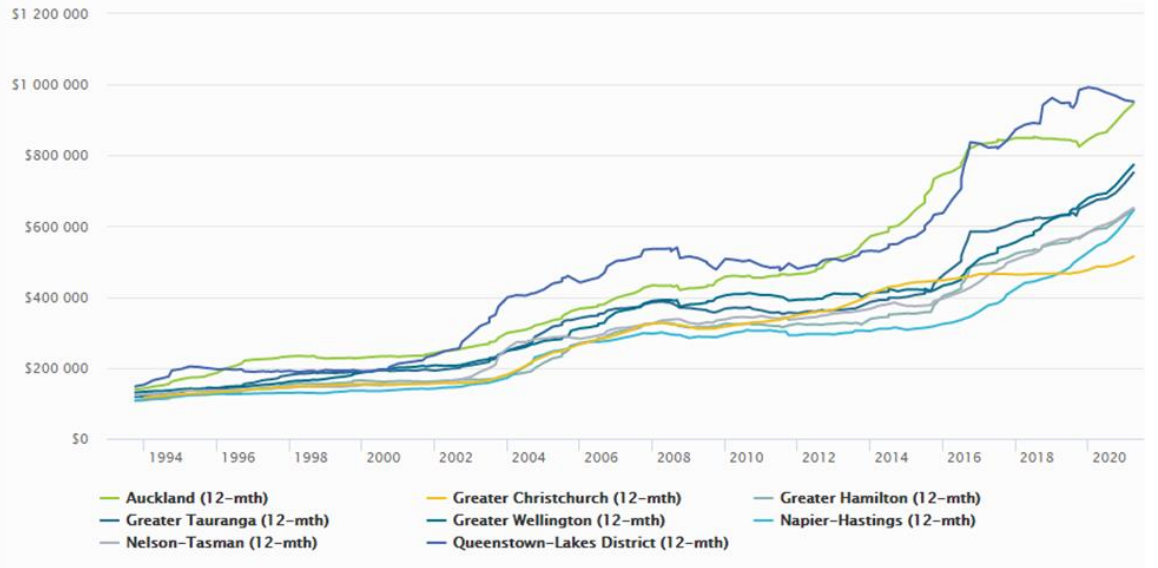
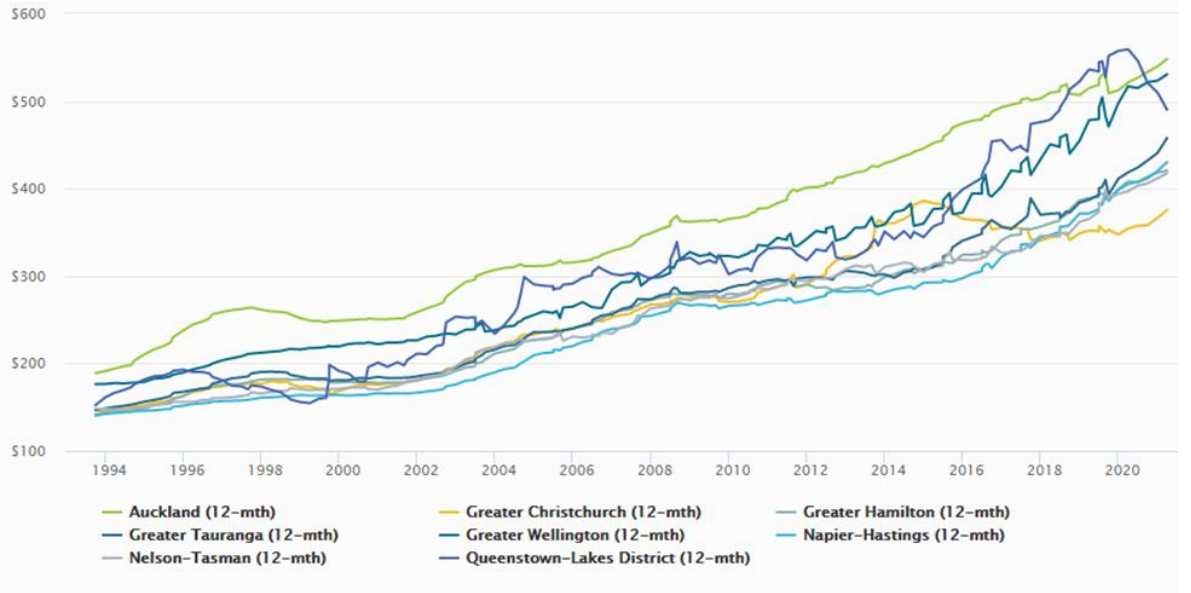


Figure 4-6: New Zealand High Growth Urban Economies - 12 month rolling dwelling rents (actual)



Actual prices in Napier-Hastings have increased 111% over the last 10 years. This compares to a range of 91% to 111% across the all cities (excluding Christchurch), indicating that Napier-Hastings has had the highest percentage increase out of all major urban areas. A similar pattern has occurred with rents, where in Napier-Hastings, the 10 year increase equates to 58%, compared to a range of 43% to 58%. Over the past 5 years, the dwelling sales price rose 97% and the rent increase was 43%.

It is important to note that these graphs are an aggregation of the total housing market in each location. They are appropriate for informing a broad understanding of the movement of the market in relation to wider national trends.

4.2 Detailed Ownership and Affordability Patterns

The NPS-UD requires detail on affordability for the community, and for segments within the community, especially in terms of incomes, ethnicity, and age group. Maintaining the focus on non-owner households and ownership affordability, this section provides detail on ownership and affordability for key segments within Napier and Hastings (2020). Detailed data tables are included in the appendices and the highlights are summarised below. The appendices present:

- Non-ownership Rates by Household Type, Income and Ethnicity (Appendix 10 for Napier and Appendix 12 for Hastings), and
- Relative incidence of non-ownership (Appendix 11 for Napier and Appendix 13 for Hastings).

The information in the appendices is condensed in a summary representation of relative incidence of non-ownership. Table 4-5 and Table 4-6 presents the summaries for Napier and Hastings, respectively. The tables show whether households in a certain group (ethnicity, income, and type) are less likely to own their home, relative to households of a similar size and income across the rest of the district/city. A tick suggests that households in a particular group (ethnicity, income, and type) are more likely to be non-owners (compared to households of similar income and type across the rest of Napier or Hastings). For households of all ethnicities, the prevalence of ownership is compared with households in the same income bracket and demography across the district/city. Crucially, the tables show the *relative* positions of households (by income bands, ethnicity, and household types). Therefore, if a group is not ticked, then it does not mean that there are not any owners in that group, it simply means that relative to other groups, the subject group is underrepresented.

The tables show the skewness of the dwelling ownership across ethnicities, with Māori households underrepresented across all categories. This is an important social aspect that has to be considered, which may require measures to be put in place to mitigate and alleviate these issues. (However, many of the potential issues and approaches are beyond the scope of this report).

The main observations about the ownership and affordably patterns are discussed below. The discussion draws on the tables as well as the information in the appendices.

First, dwelling ownership varies according to household type and household income. Households in the lower and lower-middle income bands ($70,000 and below) are less likely to be owners, and thus more likely to be renters. The pattern is clear that households with higher incomes can afford dwellings. There is also a clear connection between income and household types (outlined in earlier sections), and this flows through into non-ownership ratios. Smaller households appear to have a higher probability to be non-owners.

Single person households are an important segment, but the ownership rates are low in comparison with other household types. Importantly, many of these households are in the lower income bands, reflecting the significant numbers of older single-person households, many of whom are retired. Conversely, substantial numbers of couple households are dwelling owners. In Napier and Hastings, 17% are non-owners meaning that the balance (83%) are owners. The non-ownership rates are broadly around the 15%-20% in Napier and with the same distribution for Hastings. However, non-ownership rates are higher for the low-income bands. For families, the non-ownership rates are higher, especially for the lower income bands.

Table 4-5: Relative incidence of non-ownership - Napier

Household Type	Household income Band									
	<$20K	$20K-	$30K-	$40K-	$50K-	$70K-	$100K-	$120K-	$150K+	Total
Total All Ethnicities										
One Person Hhld	✓	✓	✓	✓						✓
Couple Hhld	✓									
2 Parents 1-2chn	✓	✓	✓	✓	✓					
2 Parents 3+chn	✓	✓	✓	✓	✓	✓				
1 Parent Family	✓	✓	✓	✓	✓	✓	✓	✓		✓
Multi-Family Hhld	-		✓	✓	✓	✓	✓	✓		
Non-Family Hhld	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Total	✓	✓	✓	✓						
European and Other										
One Person Hhld										
Couple Hhld										
2 Parents 1-2chn										
2 Parents 3+chn										
1 Parent Family										
Multi-Family Hhld										
Non-Family Hhld		✓								
Total										
Māori										
One Person Hhld	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Couple Hhld	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2 Parents 1-2chn	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2 Parents 3+chn	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1 Parent Family	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Multi-Family Hhld		✓			✓	✓	✓	✓	✓	✓
Non-Family Hhld			✓	✓	✓	✓	✓	✓	✓	✓
Total	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pacific										
One Person Hhld	✓	✓	✓	✓						✓
Couple Hhld					✓	✓	✓	✓		✓
2 Parents 1-2chn	✓	✓			✓	✓	✓	✓		✓
2 Parents 3+chn	✓	✓	✓	✓	✓	✓	✓	✓		✓
1 Parent Family	✓	✓	✓	✓	✓	✓				✓
Multi-Family Hhld							✓	✓	✓	✓
Non-Family Hhld	✓									✓
Total	✓	✓	✓	✓	✓	✓	✓	✓		✓
Asian										
One Person Hhld	✓	✓	✓	✓	✓	✓				✓
Couple Hhld	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2 Parents 1-2chn	✓		✓	✓	✓	✓	✓	✓	✓	✓
2 Parents 3+chn		✓					✓	✓	✓	✓
1 Parent Family										
Multi-Family Hhld									✓	
Non-Family Hhld		✓	✓	✓		✓			✓	✓
Total	✓		✓	✓	✓	✓			✓	✓

Table 4-6: Relative incidence of non-ownership – Hastings

Household Type	Household income Band									
	<$20K	$20K-30K	$30K-$40K	$40K-$50K	$50K-$70K	$70K-$100K	$100K-$120K	$120K-$150K	$150K+	Total
Total All Ethnicities										
One Person Hhld	✓	✓	✓	✓						✓
Couple Hhld	✓									
2 Parents 1-2chn	✓	✓	✓	✓	✓					
2 Parents 3+chn	✓	✓	✓	✓	✓	✓				✓
1 Parent Family	✓	✓	✓	✓	✓	✓	✓	✓		✓
Multi-Family Hhld	✓	✓	✓	✓	✓	✓	✓	✓		
Non-Family Hhld	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Total	✓	✓	✓	✓	✓					✓
European and Other										
One Person Hhld										
Couple Hhld										
2 Parents 1-2chn										
2 Parents 3+chn										
1 Parent Family										
Multi-Family Hhld										
Non-Family Hhld										
Total										
Māori										
One Person Hhld	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Couple Hhld	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2 Parents 1-2chn		✓	✓	✓	✓	✓	✓	✓	✓	✓
2 Parents 3+chn	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1 Parent Family	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Multi-Family Hhld	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Non-Family Hhld	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Total	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pacific										
One Person Hhld	✓	✓	✓	✓	✓	✓			✓	✓
Couple Hhld		✓	✓	✓	✓	✓	✓	✓	✓	✓
2 Parents 1-2chn	✓		✓	✓	✓	✓	✓	✓	✓	✓
2 Parents 3+chn	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1 Parent Family	✓	✓	✓	✓	✓	✓	✓	✓		✓
Multi-Family Hhld			✓	✓	✓	✓	✓	✓	✓	✓
Non-Family Hhld			✓	✓	✓					✓
Total	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Asian										
One Person Hhld	✓	✓	✓	✓	✓	✓			✓	✓
Couple Hhld	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2 Parents 1-2chn		✓	✓	✓	✓	✓	✓	✓	✓	✓
2 Parents 3+chn							✓	✓	✓	
1 Parent Family					✓	✓				
Multi-Family Hhld									✓	
Non-Family Hhld					✓	✓	✓	✓		✓
Total		✓	✓	✓	✓	✓	✓	✓	✓	✓

Ownership rates (percentage of households who are owners) are highest in the middle- and higher-income bands, as well as for couple households and smaller 2-parent families (1-2 children). Rates are lower in the lower and lower middle-income bands, and for 1-parent families and non-family households.

These patterns are not surprising, given the close link between household income and dwelling affordability, especially considering household costs are generally lower for couples compared with families with children. Nonetheless, it is important to understand the dimensions and characteristics of non-owner households.

Dwelling ownership also varies significantly by household ethnicity. While the numbers for non-owner households show a broad spread across the community, there is relatively low incidence among households of Māori ethnicity (overrepresented in non-ownership rates, with 66% of households identifying as non-owners) and Pacifica ethnicity. There is relatively higher incidence among households of Asian ethnicity.

These patterns persist across the housing statistics, and a detailed discussion of these patterns is deemed unnecessary.

Among Māori households, dwelling ownership rates are generally lower for almost all segments of the community, and substantially lower for low-income segments. Within that pattern, ownership rates are generally highest for the higher income households, especially for middle- and higher-income couples, as is the case for all ethnicities.

However, across most segments (type by income) households of Māori ethnicity show a lower level of dwelling ownership. That is especially low among households in the middle to lower income bands and especially for single persons. There is substantially lower ownership for 1-parent families, and households in the middle-lower income bands. The table shows relatively high ownership for some segments, however, that is relative to the Napier and Hastings patterns, and the raw ownership rates are generally low (less than 50%) in all those cohorts.

In contrast, among households of European and Other ethnicity, dwelling ownership rates are generally higher than the average.

The incidence of dwelling ownership is relatively high across almost all segments. An important feature is that ownership rates are most obviously relatively high for households in the middle- and lower-income bands, especially family households. That indicates that housing ownership affordability is relatively less of an issue compared with households of other ethnicities in those income and type segments.

PART 2: HOUSING CAPACITY ASSESSMENT

5 Capacity Assessment

Section summary: Councils must provide at least sufficient development capacity to meet expected demand for housing and for business land over different timeframes. Using advanced GIS techniques, the plan enabled capacity is estimated using the planning thresholds and provisions. The focus is on the residential zones but the rural areas, as well as the potential capacity in the commercial areas are included to provide a rich picture. The capacity assessment estimates the plan enabled capacity, considers the financial aspects (costs and potential sales prices), and infrastructure to support the developments. Different development pathways are included, i.e. infill development, redevelopment, vacant, and greenfield development.

Hastings

The modelling suggests that under the existing planning rules (Operative District Plan), the maximum capacity across Hastings is for an additional 7,330 standalone dwellings. This includes 1,000 dwellings in rural areas (specifically areas with a relevant zoning) and redevelopment capacity for 3,630 dwellings in commercial areas. The plan enabled capacity for medium density dwellings is estimated at (+2,065). Infill capacity[47] is estimated at 2,065 standalone, 125 medium density dwellings and 250 units in commercial areas.

Of course, not all the capacity is commercially feasible. When the different options are considered in terms of the development costs, and the potential to return a suitable margin (20%), then a sizable portion of the capacity fall away. Currently around half of redevelopment opportunities are deemed feasible. The share increases for infill (72%) and vacant (63%) options.

Over the medium and long term, the shares increase, and the trend is consistent with the trends and movements observed across NZ cities. The same upward trend is observed for higher density typologies, but the increase is more muted.

Council staff reviewed the findings with a view to comment on the situations in the different catchments and some catchments would not be able to accommodate the growth (feasible capacity) over the long term. Importantly, there is a level of uncertainty and further work is needed to confirm the potential capacity. These constraints are reflected separately in the analysis. It is noted that the infrastructure capacity is a long-term issue and not a core issue for the short and medium term.

Napier

The capacity in Napier City, enabled under the ODP is estimated for the different timeframes. The increasing densities and movements in the planning framework is reflected in the analysis. Development capacity for detached and attached dwellings, is estimated, and reported separately. This gives a range of potential outcomes. The capacity could be taken up by one or the other in some areas, not both.

The current brownfield[48] capacity is estimated at 2,360 (infill + vacant) to 6,720 (redevelopment) detached dwellings in the main urban areas. The rural areas show capacity for a further 240 to 280 detached dwellings. The plan enabled capacity is projected to increase over time (in line with higher enabled capacities). The modelling suggests potential capacity for between 2,750 and 10,460 additional detached dwellings within the urban area in the short term, and between 2,790 and 14,200 in the medium and long term. Higher density

[47] Infill and redevelopment pathways are mutually exclusive, taking one pathway excludes the other and therefore these options cannot be added together.

[48] Development that occurs on land serviced by existing infrastructure.

capacity is concentrated in areas like Ahuriri and Napier South. The development capacity for attached dwellings (medium density housing) is estimated to be between 970 and 4,530 dwelling units.

The feasible capacity is considerably lower than the plan enabled capacity, but this improves over time. The improvements are a function of higher densities and shifts in the cost-sales price relationships. Around 5% of plan enabled detached dwellings is currently feasible. This increases to 41% over the long term. In the short term, 640 detached dwellings are feasible, lifting to 1,380 over the medium term and 5,880 standalone houses over the long term. A large share (92%) of infill capacity for standalone dwellings is feasible, and this improves over time. Generally, the feasibility improves over the long term.

Greenfield capacity should be included in the overall capacity. Over the short term (current and 3-year period) capacity for 1,152 dwellings are expected to come onto the market in Hastings, and 1,151 for Napier. For the medium term, an additional capacity is expected to come to the market 528 and 967. And over the long term (2030 – 2050), additional capacity of 987 and 946 is expected to be developed.

According to Policy 2 of the NPS-UD, local authorities are to at 'all times, provide at least sufficient development capacity to meet expected demand for housing and for business land over the short term, medium term and long term.' In addition, Clause 3.2(2) goes on to state that for capacity to be sufficient the development capacity must be:

(a) plan-enabled; and
(b) infrastructure-ready; and
(c) feasible and reasonably expected to be realised; and
(d) for tier 1 and 2 local authorities only, meet the expected demand plus the appropriate competitiveness margin[49] (i.e. 20% in the short and medium term, and 15% in the long term).

This section focuses on the housing market's supply side, that is, the development capacity within Napier City and Hastings District. The development capacity considers different approaches, including:

- Infill development,
- Redevelopment,
- Vacant, and
- Greenfield development.

The section starts by outlining the methods used to estimate the capacity across the areas. The capacity is reported in terms of plan-enabled, feasible, infrastructure-ready, and reasonably expected to be realised (RER) development capacity.

5.1 General method

The capacity assessment covers several aspects as outlined above. It starts with the relevant planning zones and associated settings (e.g., lot sizes, height limits, offsets, setbacks and so forth), and then evaluates each parcel in terms of the potential to add an additional dwelling (or dwellings). The assessment then estimates

[49] A competitiveness margin is a margin of development capacity, over and above the expected demand, in order to support choice and competitiveness in housing and business land markets (NPS-UD 2020).

the net change (count of dwellings) based on the planning rules. A combination of GIS and FME modelling is used to identify parcels that could accommodate additional dwellings.

Under the Resource Management Act (1991), councils need to review their District Plans every ten years. It is our understanding that the Napier City District Plan review is currently underway. The housing development capacity assessment, therefore, uses the planning rules as set out in the operative district plan (current plan).

Hastings District Council has been working through its plan review process, and at a Council meeting (February 2020), a resolution was passed to make the proposed district plan 'Operative in Part'. The exception relates to Section 16.1 – Wāhi Taonga District Wide Activity. Hastings' capacity assessment is based on this plan. In accordance with the NPS-UD (clause 3.4(2)), only land where housing is a "*permitted, controlled or restricted discretionary activity on that land*" and is 'zoned' for housing, is included in the capacity estimates. Table 5-1 and Table 5-2 show the zones included in the analysis for Napier City and Hastings District, respectively.

Table 5-1: Napier City District Plan Zones enabling residential development

Napier Hill Character	Rural settlement
Main Residential	Jervoistown
Hardinge Road	Inner City
Lifestyle Character	Mixed use zone
Mission Special Character Residential Precinct	West Quay Waterfront
Marewa Art Deco	Fringe Commercial
Marewa State Housing	Suburban Commercial
Te Awa Bungalow	Foreshore Commercial
Marine Parade Character	

Table 5-2: Hastings District Plan Zones enabling residential development

Hastings General Residential	Hastings Suburban Commercial
Hastings Character Residential	Hastings Commercial Environments
Hastings City Living	Havelock North Village Centre - Mixed Use Zone
Havelock North General Residential	Havelock North Village Centre - Retail Zone
Havelock North Deferred General Residential	Flaxmere Village Centre - Community Residential Zone
Havelock North Character Residential	Rural Residential
Flaxmere Residential Zone	Tuki Tuki Special Character
Clive-Whakatu Residential Zone	Plains Settlement
Haumoana - Te Awanga Residential Zone	Havelock North Rural Residential
Haumoana - Te Awanga Deferred Residential	Te Mata Special Character
Hastings Central Commercial	Coastal Settlement
Hastings Central Residential Commercial	Waimarama Settlement

Appendix 14 summarises the settings per zone as applied in the modelling. Proxy values were used in the instance where the planning rules do not provide explicit values. For example, in Napier, no minimum lot sizes are specified for the residential zone. The minimum settings applied in the modelling reflected the 'effective' sizes as informed by other planning requirements, and as informed by the Councils.

According to NPS-UD, development capacity is 'plan-enabled' for housing if:

- in relation to the short term, it is on land that is zoned for housing in the operative district plan (ODP),
- in relation to the medium term, it is on land that is zoned for housing in the ODP, or the proposed district plan (PDP).

- in relation to the long term, it is on land either zoned for housing in the ODP, PDP or on land identified by the local authority in a Future Development Strategy (FDS) document or other relevant plan or strategy.

The capacity is based on the ODP for the short, medium, and long term, focusing on the residential zones throughout the districts. However, commercial zones with provisions that enable residential development are included. Where applicable, the medium density development pathways are also modelled and included in the assessment.

Regardless of the zones, the capacity assessment covers three different development approaches:

- Redevelopment capacity: reflects the theoretical maximum capacity of existing sites based on their size, zoning rules, and current use. This means that redevelopment capacity reflects the maximum number of units (dwellings) that could be developed on a site based on existing planning rules. This takes the total site area (sqm) divided by the minimum lot size and then subtracts existing units. The result is the additional capacity that could be developed. This is a basic measure reflecting the maximum potential based on the planning rules and does not reflect financial considerations. This metric shows the theoretical maximums and is based on the total capacity of the site (i.e., removing/demolishing existing buildings and developing new dwellings up to the plan enabled maximums).
- Infill capacity: relates to the potential to add additional dwellings on lots, without removing existing dwellings or structures[50]. Infill capacity is estimated based on the planning rules and site attributes. It considers the placement of buildings on the site, accessibility to the area that would be developed (i.e. can the area be accessed), recession planes and so forth. Appendix 15 describes the process to estimate infill capacity in more detail.
- Vacant capacity: relates to the number of dwellings that can be developed on vacant properties based on the planning rules. For this assessment, a property with a small building[51] is treated as vacant. On large sites where four or more dwellings can be developed, we have allowed for a portion of the total site to accommodate infrastructure, like roads, and amenities.

Importantly, redevelopment and infill capacity are mutually exclusive, not additive. The same applies to dwelling types. That is, if a standalone dwelling is developed, then duplex/apartment capacity can no longer be taken up. It is beyond the scope of this assessment to decide what proportion of the capacity uptake will consist of redevelopment, infill or vacant.

The fourth type of capacity included in this assessment is greenfield capacity. This capacity relates to large areas of previously undeveloped land. For this assessment, the development capacity associated with greenfield areas was determined by the Councils[52] and these were included in the assessment without further adjustments.

The capacity assessment reflects different timeframes that align with the NPS-UD assessment periods:

- Short term 2020-2023,
- Medium term 2023-2030, and
- Long term 2030-2050.

[50] Structures below 50m^2 are excluded i.e. these can be removed.
[51] Value of Improvements is less than $75,000 according to the rating data base.
[52] The M.E team did not have any input into estimating the greenfield yields, or the mix of densities and typologies associated with the greenfield capacity.

These timeframes are used to inform the parameters and values used in estimating the commercially feasible capacity (also referred to as feasible capacity in the text). The NPS-UD is not prescriptive regarding the approach to follow regarding commercially feasible and reasonably expected to be realised. Local authorities are required to outline and justify the approach, inputs, and assumptions used to estimate the capacity (Clause 3.26(1)(b)). Appendix 16 provides an overview of how the feasibility was assessed and lists the range of assumptions underpinning the analysis. In summary, the feasibility analysis considers the following (main) elements to determine if developing a site would be feasible:

- Costs:
    - To acquire the property (land and buildings),
    - Expenditure associated with site-preparation, remediation, and infrastructure charges,[53]
    - Construction costs (based on the house size and driveway areas),
    - Allowance for extraordinary cost items related to hazards (liquefaction and slopes),
    - Additional costs associated with:
        - Professional services, and
        - Developer's margin (20%).
- Sales price:
    - Based on the relative sales prices achieved in local sub-markets (by location and including land), adjusted for size (m^2) and then applied to the potential development.

If the sales price is greater than (>) the total development cost (including the developer's margin), then it shows the price point at which a development would be feasible.

The results are summarised in the next sections, with one for each Council area. The plan enabled capacity is discussed below. The results are presented in tabular format covering two dimensions. Firstly, the capacity is summarised at a spatial level and then it is presented using property value bands.

The capacity modelling considers different scenarios to show the potential effects of shifts in the market (i.e. price changes over time), and the implications of commercial feasibility. The current situation shows the capacity as it stands currently. In addition, a more realistic situation (with some price changes) is modelled. However, the settings used to model commercial feasibility with price changes, uses conservative prices. The potential outcomes under a high(er) inflation situation are discussed. Importantly, the conservative positions show the market growth rates required to generate different levels of feasible capacity. This helps to determine the impact of planning through identifying the required price changes across the zoned capacity to generate sufficient feasible capacity to meet demand.

This section presents plan enabled and feasible capacity in 'brownfield areas', i.e. areas already served by current infrastructure. This is not to say that the current infrastructure is sufficient to accommodate the additional dwellings, but rather focusses on the potential development that is enabled by the planning provisions. The reported capacity relates to capacity that could be taken up through redevelopment, infill development or development on vacant land. Importantly, redevelopment and infill capacity are mutually exclusive (either or) and should not be summed. For this reason, capacity is presented as a range. It is not possible to estimate what share of capacity will be taken up through redevelopment, infill, or vacant development. Greenfield capacity is reported separately.

[53] Like development contributions or financial contributions. It also includes costs like telecommunication connections fees and the like.

As part of the overall project process, interviews with local developers and utility providers were undertaken. During these interviews, the developers were probed on the local market trends, drivers and development issues as well as their margins and overall confidence in the market. The on-the-ground outlook for prices and sales patterns were also discussed. Overall, there appears to be broad consensus that the local residential development market is strong, and the outlook is positive. However, the feedback suggested that the local pricing (cost) is under pressure and cost increases are being passed on to purchasers.

5.2 Hastings - Plan enabled and feasible capacity

The plan enabled capacity in Hastings is estimated by looking at the different zones individually. Some zones do not have specified density controls, and these are modelled using assumptions and proxy values. The settings used are shown in Appendix 14: Zone settings. Table 5-3 reports the results under the low inflation (and growth) scenario. The table shows the plan enabled capacity (first block with a blue shading), followed by three different timeframes (blocks with green shading). The table shows the capacity associated with different development typologies (attached and detached). The attached typologies are associated with the medium density zones and the residential development that is associated with the commercial areas.

Table 5-3: Hastings – Capacity Outlook (Plan enabled and commercially feasible)

Timeframe and Broad Area		CAPACITY								
		Redevelopment (net)			Infill			Vacant		
		Standalone	Medium Density	Commercial Areas	Standalone	Medium Density	Commercial Areas	Standalone	Medium Density	Commercial Areas
		Detached	Attached		Detached	Attached		Detached	Attached	
Plan Enabled	Flaxmere	35	-	-	50	-	-	30	-	-
	Hastings NW	2,375	865	850	570	65	-	85	5	5
	Hastings SE	2,260	1,200	2,285	465	60	235	35	-	-
	Havelock North	1,545	-	335	465	-	15	70	-	10
	Haumoana and Clive	115	-	150	55	-	-	25	-	-
	Rural	1,000	-	10	460	-	-	70	-	-
	SUM	7,330	2,065	3,630	2,065	125	250	315	5	15
Current	Flaxmere	20	-	-	25	-	-	20	-	-
	Hastings NW	845	185	325	370	65	-	55	5	5
	Hastings SE	940	120	955	295	60	170	15	-	-
	Havelock North	995	-	115	455	-	5	60	-	-
	Haumoana and Clive	100	-	90	50	-	-	15	-	-
	Rural	800	-	10	405	-	-	35	-	-
	SUM	**3,700**	**305**	**1,495**	**1,600**	**125**	**175**	**200**	**5**	**5**
3 Year	Flaxmere	20	-	-	25	-	-	20	-	-
	Hastings NW	880	185	325	390	45	-	55	5	5
	Hastings SE	980	120	980	305	40	175	15	-	-
	Havelock North	1,030	-	125	460	-	5	60	-	-
	Haumoana and Clive	105	-	90	50	-	-	15	-	-
	Rural	800	-	10	415	-	-	35	-	-
	SUM	**3,815**	**305**	**1,530**	**1,645**	**85**	**180**	**200**	**5**	**5**
10 year	Flaxmere	25	-	-	25	-	-	20	-	-
	Hastings NW	1,010	185	330	420	45	-	55	5	5
	Hastings SE	1,120	120	1,040	330	35	175	20	-	-
	Havelock North	1,110	-	125	460	-	5	65	-	-
	Haumoana and Clive	105	-	95	50	-	-	15	-	-
	Rural	795	-	10	420	-	-	35	-	-
	SUM	**4,165**	**305**	**1,600**	**1,705**	**80**	**180**	**210**	**5**	**5**
30 Year	Flaxmere	25	-	-	30	-	-	25	-	-
	Hastings NW	1,950	185	380	490	50	-	75	5	5
	Hastings SE	1,945	120	1,285	405	50	175	30	-	-
	Havelock North	1,330	-	140	465	-	5	70	-	-
	Haumoana and Clive	110	-	100	55	-	-	20	-	-
	Rural	850	-	10	440	-	-	45	-	-
	SUM	**6,210**	**305**	**1,915**	**1,885**	**100**	**180**	**265**	**5**	**5**

The modelling suggests that under the existing planning rules (Operative District Plan), the maximum capacity across Hastings is for an additional 7,330 dwellings. This includes 1,000 dwellings in rural areas[54]. The redevelopment capacity in the commercial areas show potential capacity for another 3,630 dwellings. Importantly, this capacity is sensitive to the assumptions used in the assessment. A key driver of this capacity is the extra height (multiple storeys/levels) as well as the dwelling sizes that are used. In addition to this

[54] Specifically the rural areas with the relevant zoning.

capacity, there is vacant capacity for a further 330 dwellings – with 315 in the main residential zones (labelled as standalone) and 15 in the commercial zones. With reference to the medium density columns, the totals show the potential capacity if the medium density approach is followed. This capacity is not 'in addition' to the standalone capacity because in some instances, the development potential is either a detached dwelling or an attached dwelling. However, if that parcel is developed to the higher densities (i.e. the medium density settings), then it would deliver greater overall capacity. Regardless, the analysis shows that plan enabled capacity for medium density dwellings is considerable (+2,065).

The main observations regarding the spatial distribution of plan enabled capacity are:

- Most of the plan enabled capacity is in Hastings, with 32% associated with Hastings NW and 30% in Hastings SE. These two areas account for almost two thirds of the plan enabled capacity (detached).
- Havelock North is the third largest area in terms of plan enabled capacity, accounting for 21% of the overall capacity.
- While not a direct focus of the NPS-UD, the rural areas represent a sizable share of the total plan enabled capacity. These areas account for 14% of total plan enabled capacity, or 1,070 dwellings. This is, however, associated with the large rural lots and not part of the overall urban residential market.

The plan enabled capacity for Hastings remains stable looking forward and does not change. The next part of the assessment considered the financial aspects of the plan enabled capacity. Essentially, this added costs, sales values, and a developer's margin to the analysis with a view to form a view of the potential future commercially feasible capacity. The identified patterns relating to the commercially feasible capacity are summarised below (see Table 5-3 for the data):

- As expected, there is a drop off between the plan enabled capacity and the commercially feasible capacity over the immediate (current) and the short term. However, for the medium to long term, the level of capacity that becomes feasible increases. Currently, around half of the redevelopment capacity (standalone dwellings) is feasible, but the share increases for infill (77%) and vacant (63%) capacity.
- Broadly speaking, the share of plan enabled capacity that becomes feasible increases over time. This is expected and shows the interplay between land values and development costs.
- The total number of feasible dwellings (capacity) is expected to increase from current levels of 2,950 in the suburban areas[55] and 1,400 in the commercial areas to:
    - Short term (2023): 3,060, and 1,435 for the suburban and commercial areas, respectively,
    - Medium term (2030): 3,425, and 1,500 for the suburban and commercial areas, respectively, and
    - Long term (2050): 5,450, and 1,810 for the suburban and commercial areas, respectively.
- Spatially, the feasible capacity is concentrated in the main residential areas of Hastings and Havelock North.
- In terms of the annual shifts of new capacity becoming feasible over time, the estimated shifts are annualised as follows:
    - In the short term (2020-2023), the level of plan enabled capacity that becomes feasible (i.e., so not currently feasible) on an annual basis, is estimated at 38 standalone dwellings and 12

[55] Excluding rural areas, e.g. Haumoana and Clive.

attached dwellings (associated with the medium density area and commercial areas). Combined, this suggests that the maximum feasible dwellings (potential development) are put at 50. The capacity is spread relatively evenly across Hastings and Havelock North.

- Over the next seven years to 2030, annual growth in feasible capacity is expected to increase to around 60 dwellings, spread between detached and attached dwellings with estimates suggesting a split of 51 detached to 10 attached dwellings per annum. Again, the distribution is broadly even but a noticeable shift towards Hastings which captures 80% of the annual change (new capacity). The additional capacity that becomes feasible in Havelock North remains around the 10 dwellings mark (per year).
- Over the long term (2030-2050), the level of additional capacity that becomes feasible is estimated at 50 for standalone dwellings in Hastings NW and SE. In Havelock North, the annual shift is around 10 dwellings. For attached dwellings, the level of annual increase appears to stay broadly constant – at around 10-15 dwellings.

Apart from the spatial distribution of the capacity, the distribution can be presented in terms of the value bands of capacity as it becomes feasible. Presenting the capacity with this dimension provides an indication of 1) the link between price points and affordability, and 2) how that capacity fits in, and compares with, the existing residential stock.

Summary data about the distribution of the capacity (by value bands) is presented below. This information is linked to the implications of the observations highlighted in earlier parts of the report (dealing with affordability and the value of real estate portfolio looking forward).

Figure 5-1 summarises the capacity outlook, by value band for the short, medium, and long term. Table 5-4 provides the data underpinning the discussion. The figure and table show the maximum capacity, i.e., it sums the redevelopment and vacant capacity for the detached (standalone) dwellings. The figure showing the attached dwellings reflects the medium density development (areas) and residential developments in commercial areas. Importantly, these summaries exclude capacity associated with the rural areas and focuses on the urban areas. Appendix 17 presents the full data tables with the rural areas included.

Figure 5-1: Hastings-Capacity per value band (over time)

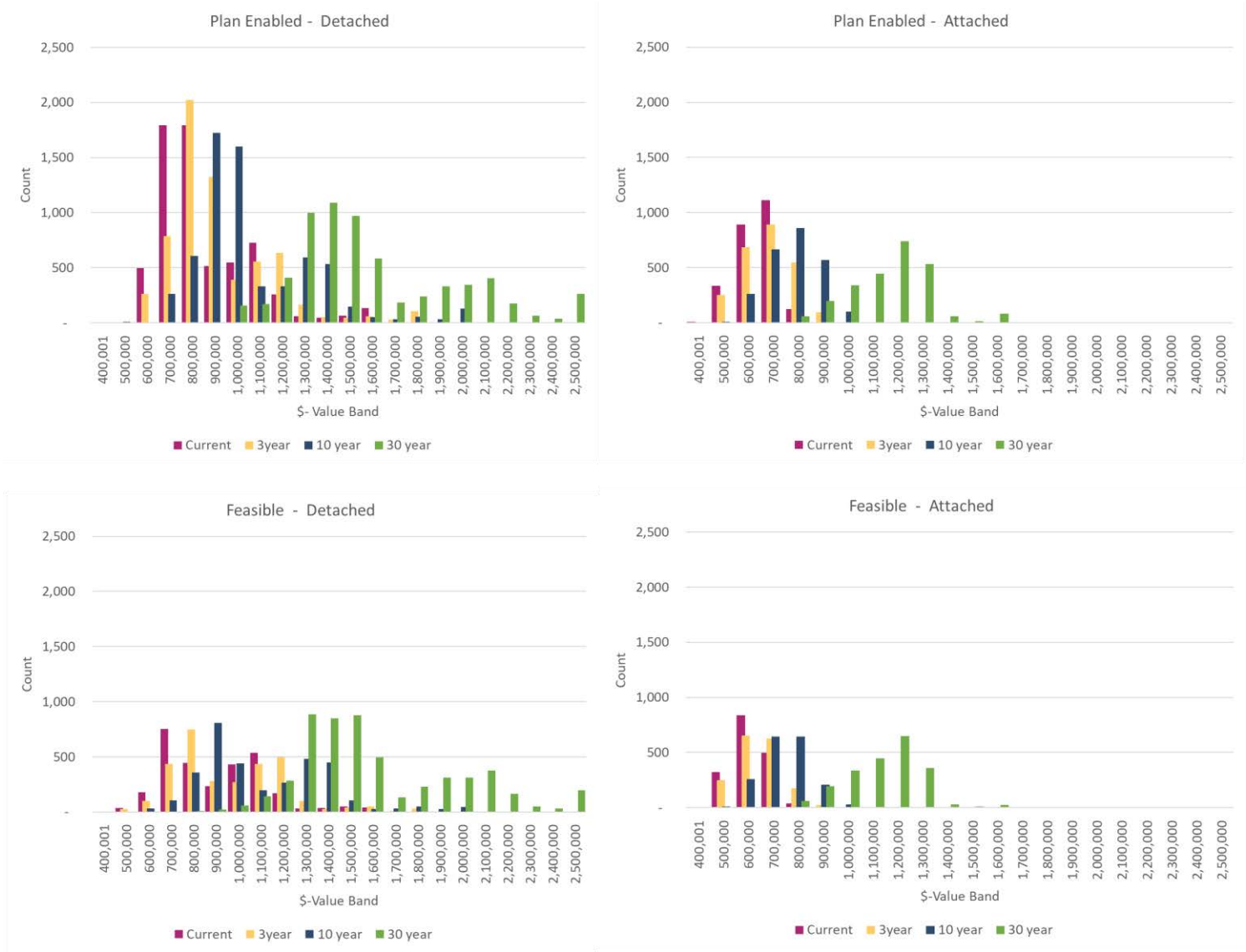


Table 5-4: Hastings Capacity (plan enabled and commercially feasible) Summary

	Plan Enabled Capacity								Commercially Feasible Capacity (CF)							
$	Redevelopment - Standalone				Medium Density and Commercial Areas				Redevelopment - Standalone				Medium Density and Commercial Areas			
Upper Limit	Current	3year	10 year	30 year	Current	3year	10 year	30 year	Current	3year	10 year	30 year	Current	3year	10 year	30 year
400,001	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-
500,000	5	-	10	-	335	250	10	-	35	28	-	-	320	250	10	-
600,000	495	265	5	-	890	685	260	-	177	99	31	-	835	650	260	-
700,000	1,790	790	265	-	1,115	890	665	-	750	434	104	-	495	625	645	-
800,000	1,790	2,020	610	5	125	545	860	60	444	746	355	8	35	175	645	60
900,000	515	1,320	1,725	-	-	95	570	195	235	279	808	21	-	25	205	195
1,000,000	545	390	1,600	160	-	-	100	340	432	269	442	58	-	-	30	340
1,100,000	725	555	330	170	-	-	-	445	535	434	197	139	-	-	-	445
1,200,000	255	635	335	410	-	-	-	740	170	493	263	285	-	-	-	650
1,300,000	60	165	590	1,000	-	-	-	530	30	100	480	885	-	-	-	360
1,400,000	45	50	530	1,085	-	-	-	60	34	27	447	850	-	-	-	30
1,500,000	65	45	145	970	-	-	-	15	51	38	103	874	-	-	-	10
1,600,000	135	60	50	585	-	-	-	85	38	48	25	495	-	-	-	25
1,700,000	-	25	35	185	-	-	-	-	-	9	32	132	-	-	-	-
1,800,000	-	105	55	240	-	-	-	-	-	31	47	228	-	-	-	-
1,900,000	-	-	30	330	-	-	-	-	-	-	26	312	-	-	-	-
2,000,000	-	-	130	345	-	-	-	-	-	-	46	313	-	-	-	-
2,100,000	-	-	-	405	-	-	-	-	-	-	-	376	-	-	-	-
2,200,000	-	-	-	175	-	-	-	-	-	-	-	166	-	-	-	-
2,300,000	-	-	-	65	-	-	-	-	-	-	-	47	-	-	-	-
2,400,000	-	-	-	40	-	-	-	-	-	-	-	31	-	-	-	-
2,500,000	-	-	-	260	-	-	-	-	-	-	-	197	-	-	-	-
SUM	**6,425**	**6,425**	**6,425**	**6,425**	**2,470**	**2,470**	**2,470**	**2,470**	**2,931**	**3,035**	**3,406**	**5,417**	**1,690**	**1,725**	**1,795**	**2,115**

Main suburban areas

The main points about the distribution across different value bands are:

- Plan enabled capacity is currently concentrated in the $600,000-$800,000 range for detached dwellings. This capacity accounts for 56% of the plan enabled capacity (for standalone dwellings). Adding the two value bands at either side to expand the range from $500,000 to $900,000, shows that 71% of the plan enabled capacity falls within this range. Apart from a small spike in the $1m-$1.1m band, which captures 11% of the capacity, the rest of values are distributed in small (<2%) lots across the rest of the value band, up to $1.6m. Looking forward, plan enabled capacity shifts up in the value bands, reflecting changes in land value as well as the development costs and other items like sales values. The shifts are constant over the short term (2020-2023), with plan enabled capacity concentrated around the $600,000 to $1m bands with three quarters (74%) of the capacity in these ranges. Over the medium term, the relative concentration continues with 66% of the plan enabled capacity (standalone dwellings) in the $800,000 - $1.1m band. In the long term (by 2050), the bulk (63%) of plan enabled capacity is expected, leading to an increased concentration in the $1.2m - $1.6m range. The weighted average value of the plan enabled capacity is estimated to increase as follows:
    - Current: $810,000,
    - Short term (2023): $880,000,
    - Medium term (2020): $1m, and
    - Long term (2050): $1.6m.
- The plan enabled capacity also includes medium density dwellings (attached) in specific zones in Hastings as well as residential development in the commercial zones (subject to other planning regulations and provisions). For the medium density developments, the plan enabled capacity is generally at lower value bands (vs standalone dwellings). The analysis shows that currently, all the plan enabled capacity is in the sub-$800,000 value bands. But it is concentrated in the $600,000-$700,000 band which accounts for 45% of the plan enabled capacity. Over the short and medium term, the concentration remains with the capacity groups across five/six value bands. The weighted average value of the plan enabled capacity is estimated at $590,000, increasing to $630,000 and $730,000 over the next three and ten years, respectively. Over the long term (2050), the weighted average value of the plan enabled capacity for attached dwellings is estimated to increase to $1.1m.
- Both the detached and attached dwelling formats show considerable plan enabled capacity. When the plan enabled capacity in the rural areas is excluded, then 28% of the capacity is associated with the higher density options. Combined with the generally lower pricing points, this suggests that the medium density development options (including the commercial areas) could be used to address future affordability considerations.

Importantly, the plan enabled capacity and values do not reflect the feasible capacity. The feasible capacity (FC) and the associated distribution across the value bands are discussed below:

- As expected, the FC is lower than the plan enabled capacity. The analysis suggests that the share of plan enabled capacity that is feasibly currently sits at 46%, increasing marginally to 47% over the next three years. Over the medium and long term, the share increases to 53% (2030) and 84% by 2050. This trend is consistent with the trends and movements observed across NZ cities. The same upward trend is observed for higher density typologies, but the increase is more muted. The weighted average value of the FC is estimated as follows:

	Current	3 year	10 year	30 year
Standalone	$860,000	$920,000	$1,070,000	$1,570,000
Medium Density and Commercial Areas	$560,000	$600,000	$700,000	$1,080,000

- The FC for both attached and detached dwellings increases over time. The current (maximum) FC for redevelopment is spread across several value bands. The largest value band (in terms of FC) is the $600,000-$700,000 band with an estimated 750 dwellings. The value bands up to $1.1m add another 1,650 dwellings. Looking forward, the FC increases in terms of quantum (number of commercially feasible capacity) as well as the value bands. The FC remains tightly concentrated for the medium density and commercial areas, with three quarters of the FC falling in two value bands. Over the current and short term, 79% and 74% of FC are in the $500,000-$700,000 band, respectively. By 2030, this concentration will move up slightly with 72% of the FC in the $600,000-$800,000 band. Long term (2050), the concentration dilutes somewhat with 52% of the FC in two value bands ($1m - $1.2m).

As mentioned earlier, the capacity assessment for residential development in commercial areas is subject to several key limitations and caveats. A central caveat is that the capacity assessment assumes that the associated (and required) commercial development is feasible. If this is not the case, then the associated residential development would not go ahead. This means that the estimates associated with the commercial areas are indicative at best.

5.3 Napier - Plan enabled and feasible capacity

The capacity in Napier City, enabled under the ODP in the short, medium, and long term is displayed in Table 5-5. Development capacity for detached and attached dwellings, is shown separately because the capacity could be taken up by one **or** the other in some areas, not both. Firstly, the plan enabled capacity (PEC) is presented (blue part of the table), then the estimated commercially feasible capacity (FC) (green part of the table). The second part of the table reports commercially feasible capacity for the different typologies (detached and attached) and for redevelopment, infill and vacant. It also shows how the feasible capacity will change over time.

Development of attached dwellings is limited to the following planning zones:

- Art Deco Quarter
- Foreshore Commercial
- Fringe Commercial
- Inner City Commercial
- Mixed use zone
- Suburban Commercial
- West Quay Waterfront

Table 5-5: Napier City – Plan Enabled and Feasible Capacity by Location

	Location	Plan Enabled Capacity											
		Current			Short Term (2020-2023)			Medium Term (2020-2030)			Long Term (2020-2050)		
		Redev	Infill	Vacant	Redev	Infill	Vacant	Redev	Infill	Vacant	Redev	Infill	Vacant
Detached dwellings	Napier South/Hills/Westshore	690	200	90	970	210	100	1,160	210	100	1,160	210	100
	Ahuriri/Onekawa West	130	30	30	130	30	30	130	30	30	130	30	30
	Marewa/Maraenui/Onekawa	2,260	730	110	3,330	860	120	4,720	1,040	140	4,720	1,040	140
	Tamatea/Pirimai/Greenmeadows	1,780	530	40	3,380	680	50	4,670	570	60	4,670	570	60
	Taradale	1,860	550	60	2,650	600	80	3,520	520	90	3,520	520	90
	Urban Total	**6,720**	**2,030**	**330**	**10,460**	**2,380**	**370**	**14,200**	**2,370**	**420**	**14,200**	**2,370**	**420**
	Rural	280	190	50	660	200	50	730	200	50	730	200	50
	Total	**7,000**	**2,220**	**380**	**11,120**	**2,580**	**420**	**14,930**	**2,570**	**470**	**14,930**	**2,570**	**470**
	Location	**Current**			**Short Term (2020-2023)**			**Medium Term (2020-2030)**			**Long Term (2020-2050)**		
		Redev	Infill	Vacant	Redev	Infill	Vacant	Redev	Infill	Vacant	Redev	Infill	Vacant
Attached dwellings	Napier South/Hills/Westshore	1,700	310	160	1,700	310	160	1,700	310	160	1,700	310	160
	Ahuriri/Onekawa West	2,290	220	120	2,290	220	120	2,290	220	120	2,290	220	120
	Marewa/Maraenui/Onekawa	20	10	-	20	10	-	20	10	-	20	10	-
	Tamatea/Pirimai/Greenmeadows	230	110	-	230	110	-	230	110	-	230	110	-
	Taradale	290	30	10	290	30	10	290	30	10	290	30	10
	Urban Total	**4,530**	**680**	**290**	**4,530**	**680**	**290**	**4,530**	**680**	**290**	**4,530**	**680**	**290**
	Rural	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**4,530**	**680**	**290**	**4,530**	**680**	**290**	**4,530**	**680**	**290**	**4,530**	**680**	**290**
		Feasible Capacity											
	Location	**Current**			**Short Term (2020-2023)**			**Medium Term (2020-2030)**			**Long Term (2020-2050)**		
		Redev	Infill	Vacant	Redev	Infill	Vacant	Redev	Infill	Vacant	Redev	Infill	Vacant
Detached dwellings	Napier South/Hills/Westshore	40	170	50	90	190	50	160	200	70	410	200	70
	Ahuriri/Onekawa West	-	10	10	10	20	10	10	20	10	20	20	10
	Marewa/Maraenui/Onekawa	30	650	40	110	850	90	360	1,040	120	2,740	1,040	120
	Tamatea/Pirimai/Greenmeadows	90	530	20	160	680	30	400	570	50	1,620	570	50
	Taradale	190	510	10	280	560	20	450	500	60	1,100	520	70
	Urban Total	**350**	**1,860**	**120**	**640**	**2,290**	**210**	**1,380**	**2,320**	**290**	**5,880**	**2,350**	**310**
	Rural	-	20	10	20	30	10	70	70	10	190	170	20
	Total	**350**	**1,880**	**130**	**660**	**2,310**	**220**	**1,450**	**2,390**	**300**	**6,070**	**2,520**	**330**
	Location	**Current**			**Short Term (2020-2023)**			**Medium Term (2020-2030)**			**Long Term (2020-2050)**		
		Redev	Infill	Vacant	Redev	Infill	Vacant	Redev	Infill	Vacant	Redev	Infill	Vacant
Attached dwellings	Napier South/Hills/Westshore	360	90	10	440	130	90	650	230	120	1,210	300	140
	Ahuriri/Onekawa West	1,150	90	-	1,480	150	40	1,810	190	110	1,960	200	110
	Marewa/Maraenui/Onekawa	-	-	-	-	10	-	-	10	-	-	10	-
	Tamatea/Pirimai/Greenmeadows	40	110	-	220	110	-	220	110	-	230	110	-
	Taradale	220	20	10	230	20	10	230	20	10	240	30	10
	Urban Total	**1,770**	**310**	**20**	**2,360**	**420**	**130**	**2,910**	**560**	**230**	**3,640**	**660**	**260**
	Rural	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**1,770**	**310**	**20**	**2,360**	**420**	**130**	**2,910**	**560**	**230**	**3,640**	**660**	**260**

In total, there is currently brownfield[56] capacity under the ODP for 2,360 (infill + vacant) to 6,720 additional detached dwellings in the main urban areas, and a further 240 to 280 detached dwellings in rural areas. The lower end of the range is the combined total of potential infill and vacant development options, with the upper end of the range reflecting redevelopment potential within the existing urban area.

The increase in PEC for standalone dwellings over the short and medium/long term is the result of a shift of lot sizes, from 350sqm (currently) to 250sqm. The modelling suggests potential capacity for between 2,750 and 10,460 additional detached dwellings within the urban area, in the short term and between 2,790 and 14,200 in the medium and long term. PEC in the rural areas increases to between 250 and 660 in the short term, and 250 to 730 in the long/medium term.

Capacity for attached dwellings is concentrated in areas within the above-mentioned zones (including areas such as Ahuriri and Napier South that form parts of the groupings are reported in the table). The development capacity for attached dwellings (medium density housing) is currently estimated to be between 970 and 4,530 dwelling units. This remains stable over the short, medium, and long term because of the dwelling density assumptions remaining unchanged over time.

[56] Development that occurs on land serviced by existing infrastructure.

Some key observations about the plan enabled capacity in Napier:

- Marewa/Maraenui/Onekawa currently contains the greatest share (34%) of zoned, redevelopment capacity with 2,260 detached dwellings. This increases to 3,330 standalone dwellings in the short term, and 4,720 over the medium/long term. This area's share of PEC (redevelopment) remains relatively flat, while Tamatea/Pirimai/Greenmeadows, increases its share from 27% of the zoned redevelopment capacity (currently) to 33% over the medium/long term. This suggests that Tamatea/Pirimai/Greenmeadows have more sites that are activated if minimum lot sizes[57] are adjusted over time.
- In terms of **redevelopment** capacity for attached dwellings, Ahuriri/Onekawa West contains more than half (51%) of PEC, followed by Napier South/Hills/Westshore (37%). Planning provisions for attached dwellings remains stable over the assessment timeframe and, consequently, the PEC remains constant.
- Marewa/Maraenui/Onekawa holds the greatest share of **infill** capacity for detached dwellings over time (33%-34%). Quantitatively, this suggests a potential for 730 detached dwellings (infill) currently, increasing to 1,040 dwellings over the longer term.
- **Infill** capacity for attached dwellings is concentrated in Ahuriri/Onekawa West (51%) and Napier South/Hills/Westshore (37%), where most of the area is covered by Mixed Use and Inner City Commercial zones.
- There is relatively little **vacant** capacity across Napier, when compared with infill and redevelopment. Marewa/Maraenui/Onekawa accounts for a third of the vacant capacity (PEC), that is, 110 detached dwellings currently, increasing to 142 dwellings over the medium-long term.
- More than half of the **vacant capacity** for attached dwellings is located in Napier South/Hills/Westshore (56%), followed by Ahuriri/Onekawa West (42%), and the remaining in Taradale (<2%). This is expected given the zones to which medium density housing is limited.

The second part of the above table (Table 5-5) shows the results of the assessment relating to the commercial feasibility. This layer considers the relationship between sales prices and development costs. In accordance with the NPS-UDC technical guidance, this assessment has assumed that developments with a margin of at least 20%, are commercially feasible to construct for a commercial developer. Inputs and information were sought from local commercial developers, through one-on-one interviews. This, in part, informed the feasibility modelling. Developers commented on the very high growth in sales prices over the short term. However, limited useable data and information was supplied, although some developers indicated that lower margins (than the assumed 20%) were sometimes achieved, and some required higher margins to go ahead with a development. These differences were determined by the type and nature of the development. The modelling uses the 20% rate as benchmark.

The table shows the following key points about the feasible capacity:

- Currently, the feasible capacity for **redevelopment** is low. Of the 6,720 additional detached dwellings enabled under the ODP within the urban area, only around 350 (5%) are currently commercially feasible. This increases over time to 41% of redevelopment capacity becoming feasible by 2050. This implies, in the short term, 640 detached dwellings are feasible, lifting to 1,380 over the medium term

[57] This refers to the lot sized used in the modelling to estimate the capacity for standalone dwellings, and does not suggest a rule in Napier's ODP. Napier City Council provided guidance on the assumptions on dwelling density used in the capacity modelling.

and 5,880 standalone houses over the long term. A reason for this increase relates to the relationship between costs and sales prices, and how this moves over time. It also suggests that a reasonable share of PEC is only marginally unfeasible (i.e., slightly under 20% margin) and that the cost of the existing buildings, is limiting overall financial feasibility.

- Conversely, a large share (92%) of the urban **infill** capacity for standalone dwellings, enabled under the ODP, is currently feasible. By 2050, of the 2,370 detached dwellings enabled under the ODP, almost all (2,350 dwellings) are estimated to be feasible. This is a function of the land values and the relatively small size of enabled capacity (small(er) dwellings).
- Of the 290 potential (PEC) detached dwellings on **vacant** land, 120 dwellings (36%) are currently feasible. Over time, the share of feasible dwellings lifts to 74% (long term), i.e., 310 standalone dwellings estimated to be commercially viable.
- In terms of **redevelopment** capacity for attached dwellings, initially, 39% of zoned capacity is feasible, but over the long term, around 80% of dwellings (i.e., 3,640 out of 4,530 attached dwelling units) are feasible.
- Of the nearly 700 attached dwellings enabled through **infill** capacity, 310 (46%) are currently feasible, and this increases to 660 dwellings over the long term (i.e. 97%).
- At present, relatively little **vacant** capacity (7%) for attached dwellings is feasible (20 dwellings). Over the short term this lifts to 45% (130 dwellings), and by 2050, 260 out of the 290 attached dwellings are estimated to be commercially viable.

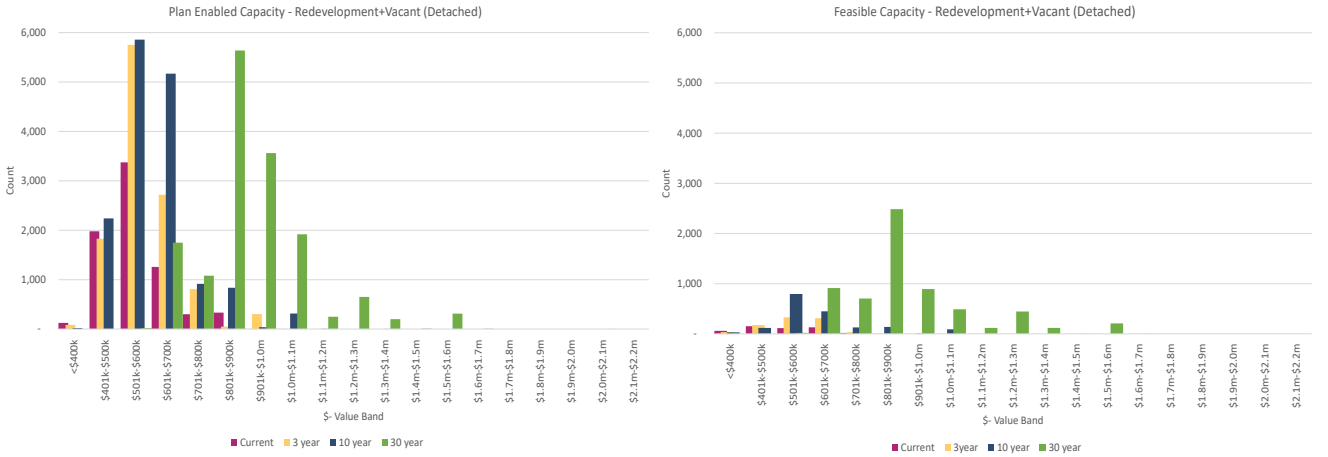
Some key observations about the spatial distribution of feasible capacity:

- Ahuriri/Onekawa West consistently shows low levels of feasible capacity (as a share of plan enabled capacity in the area at a specified point in time) for detached dwellings. This is likely because there is limited capacity for standalone dwellings (60-130 dwellings) enabled under the ODP in these areas, and secondly, land values are relatively high in this area. These factors combine to lift the overall development costs, and therefore reduces the potential capacity especially for larger/lower density formats.
- Currently, and in the short term, feasible capacity for detached dwellings through **redevelopment** is concentrated in Taradale and Tamatea/Pirimai/Greenmeadows. Over the medium and long term, there is a shift with nearly half (47%) of feasible capacity (detached dwellings through redevelopment) located in Marewa/Maraenui/Onekawa by 2050.
- Feasible **infill** capacity for detached dwellings, is very similar in Marewa/Maraenui/Onekawa, Tamatea/Pirimai/Greenmeadows and Taradale. As a share of plan enabled capacity, these areas have high levels of feasible capacity. Currently between 89% and 99% of plan enabled infill capacity for standalone dwellings are feasible. The modelling suggests that all the plan enabled infill capacity for standalone houses within these areas would be commercially feasible over the long term.
- Over time, Marewa/Maraenui/Onekawa consistently has the largest share[58] of feasible **vacant** capacity for detached dwellings.
- In terms of attached dwellings, feasible capacity over the long term is largely concentrated in Ahuriri/Onekawa West and Napier South/Hills/Westshore. Large areas are covered by Mixed Use, Inner City Commercial, Fringe Commercial or Art Deco zoning, where medium density housing is encouraged. Some feasible capacity for attached dwellings is dotted around the city where Suburban Commercial zoning exists.

[58] As a share of Napier's feasible vacant capacity

In addition to the spatial distribution of plan enabled and feasible capacity, the distribution can be viewed across value bands. This perspective provides insight into the link between feasible capacity and the affordability of dwellings. Figure 5-2 represents the maximum theoretical capacity, i.e., the sum of redevelopment and vacant capacity for detached dwellings distributed across value bands. More detailed information (including attached dwellings) is presented in Appendix 18. Importantly, the rural capacity is included in the value band tables/figures, but it makes up a small share of the plan enabled capacity (710 dwellings in the short term and 780 dwellings over the long term) and so it does not skew the overall picture.

Figure 5-2: Maximum Theoretical Capacity by Value band – Detached Dwellings



Currently, detached dwelling capacity is concentrated in the $400,000 - $700,000 value bands, accounting for 94% of total plan enabled capacity (Appendix 18 shows the supporting data). Furthermore, 73% of PEC is valued between $400,000 and $600,000. This highlights the fact that a very large portion of the PEC is in the sub-$600,000 range. However, of the 3,375 standalone dwellings in this value range ($400,000 to $700,000), only 6% is feasible. This is marginally higher than other value bands; overall only 5% of the current plan enabled capacity for standalone dwellings is feasible.

Over time, plan enabled capacity shifts up the value bands, reflecting several changes including smaller lot sizes, changes in land value, development costs and other items like sales values. The largest shares at each point in time are valued as follows:

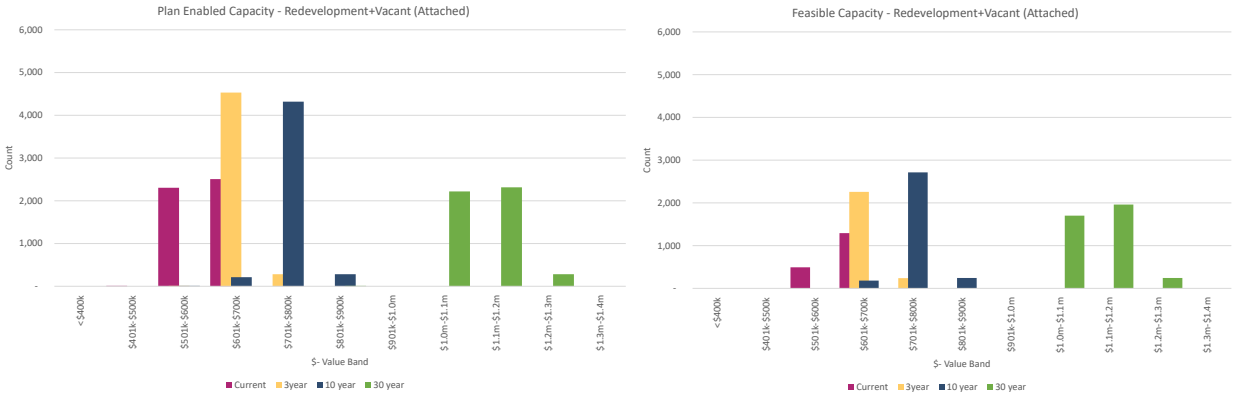
- Short term – 8,470 detached dwellings (73% of PEC) between $500,000 and $700,000 (and 10% over $700,000).
- Medium term – 11,030 detached dwellings (72% of PEC) between $500,000 and $700,000 (and 14% over $700,000).
- Long term – 11,120 detached dwellings (74% of PEC) between $800,000 and $1,100,000

Note, the upwards shift is less pronounced in the short and medium term when the value/price increases are offset by decreasing lot sizes.

For attached dwellings, the value band distribution is limited, and this reflects the underlying modelling assumptions and the narrow definitions. An average size of dwelling is used, rather than estimating different size ranges (due to information limitations). Another limiting factor is medium density being limited to certain

zones and consequently the areas that could accommodate higher densities are relatively homogenous, with broadly similar land values, engineering requirements and building costs. Figure 5-3 shows the estimated plan enabled and feasible capacity for attached dwellings distributed across value bands.

Figure 5-3: Maximum Theoretical Capacity by Value band – Attached Dwellings



Currently, plan enabled capacity for attached dwellings is valued between $500,000 and $700,000. Over the long term, this upward shift impacts most attached dwellings, with increases in value sitting between $1.0m and $1.2m. As expected, the pattern is mirrored in the feasible capacity.

At present the bulk (72%) of feasible capacity for attached dwellings is valued between $500,000 and $600,000. Looking forward the bulk of attached dwellings shifts upwards as follows:

- Short term – 2,260 attached dwellings (90% of feasible capacity) are valued between $600,000 and $700,0000.
- Medium term – 2,710 attached dwellings (86%) of feasible capacity are valued between ($700,000 and $800,000.
- Long term – 3,660 attached dwellings (94%) of feasible capacity are valued between $1,000,000 and $1,200,000).

Over the long term, 41% of plan enabled capacity is estimated to be feasible, which suggests around 6,070 standalone dwellings would become commercially viable by 2050.

5.4 Infrastructure Ready Capacity

An important part of assessing the overall development capacity and the ability of the local real estate market to deliver residential accommodation, is the link with infrastructure. That is, the availability of suitable infrastructure to support residential development. Clause 3.4(3) of the NPS-UD states that development capacity is infrastructure ready if:

a) In relation to the short term, there is adequate existing development infrastructure to support the development of 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 (LTP).

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 LTP).

We note that the Councils provided direct inputs into the infrastructure capacity across the main urban catchments and focused on wastewater and stormwater capacity. Measures to mitigate the impacts of development on the stormwater network are in place and included in the capacity modelling (e.g. additional costs to provide onsite retention are included in the financial assessments). The situations in Hastings and Napier relating to infrastructure readiness, and the ability to accommodate future growth (i.e., the capacity) are discussed below.

The initial infrastructure capacity review completed by the Councils revealed that wastewater and stormwater catchments could be grouped into three categories. The Councils' engineer teams reviewed the estimated capacity levels per catchments, as anticipated over time (short, medium and long term) and gave an indication of the infrastructure's ability (in the catchments) to accommodate future growth. The initial views have several caveats and limitations, but include anticipated infrastructure investments (as currently in the LTPs).

The categories reflect the level of infrastructure readiness, i.e.:

- Catchments with sufficient capacity (currently and over time),
- Catchments where there is likely to be enough infrastructure capacity (currently) but where there is a degree of uncertainty around this readiness (in the future),
- Catchments where infrastructure constraints are likely to inhibit future developments.

The assessment considered all catchments[59] and the associated capacity. All the capacity located in catchments, in the first category are included in the assessment. However, in catchments where the ability of infrastructure to support future growth is uncertain, or where the capacity will be constrained is excluded from the sufficiency assessment. This capacity is reported as either 'flagged' for 'exclude'. So, if the infrastructure capacity is uncertain, or constrained, then the capacity (in the relevant catchments) is removed from the overall capacity.

As shown in the previous section, a portion of plan enabled becomes feasible over time. If this additional capacity cannot be accommodated due to infrastructure capacity constraints (due to uncertainty or known constraints), then the difference between the infrastructure supported capacity, and the feasible capacity is reported. Essentially, this shows how much growth (feasible capacity) is not supported.

5.4.1 Hastings – Infrastructure ready

For Hastings, the interim capacity estimates were presented spatially and summarised to the stormwater and wastewater catchments used by the Council. These summaries showed the maximum capacities over the short, medium, and long terms. Council staff reviewed the findings with a view to comment on the situations in the different catchments. Table 5-7 and Table 5-8 report the feedback looking at the individual catchments, showing the infrastructure constraints. Some catchments are constrained and the implications on overall development capacity are highlighted. An important caveat associated with these comments (from Council)

[59] The catchments relate to urban areas, serviced by the infrastructure.

is that these are initial views and would need to be verified through further, more refined analysis. This was a key caveat emphasised by Council staff.

The different catchments do not cover the entire district and the rural areas are not included in the following descriptions. Appendix 19 shows the catchments.

With reference to the wastewater capacity and reflecting on the inputs from Council, it appears that there is sufficient capacity across several catchments to allow development. However, some catchments are already at capacity and are excluded from further analysis. Furthermore, some catchments appear to have infrastructure capacity that would support additional development without triggering a need for substantial investment. There is, however, some uncertainty around the long-term period. Closer inspection and investigations are needed before the development capacity is included in the assessment. Table 5-6 shows the impacts on the feasible capacity.

Table 5-6: Impact of Wastewater constraints

Timeframe	Item	Infrastructure ready	Flagged for further investigation	Exclude
Current (Total)	Max (Res)	1,065	-	1,805
	Max (Med)	215	-	95
	Max (Commercial)	1,220	-	185
2020-2023 Additional Capacity	Max (Res)	45	-	50
	Max (Med)	-	-	5
	Max (Commercial)	25	-	5
2023-2030 Additional Capacity	Max (Res)	175	-	190
	Max (Med)	-	-	-
	Max (Commercial)	50	-	10
2030-2050 Additional Capacity	Max (Res)	1,190	900	845
	Max (Med)	-	-	-
	Max (Commercial)	285	245	35

The key indication is that over the medium to long term, the level of available capacity is reduced. Over the medium term, around 200 dwelling capacity (190 + 10, that becomes feasible in the period) is excluded from the analysis because of infrastructure constraints. Over the long term, between 2030-2050, 880 potential development opportunities are excluded. Similarly, given the unknowns associated with some catchments and the need for further assessments, a further 1,145 dwellings (feasible capacity flagged for further investigation) are excluded from further analysis. The net effect of these changes is that feasible capacity is reduced by 2,125.

Table 5-7 outlines the infrastructure capacity feedback received from Hastings District Council relating to stormwater infrastructure. Table 5-8 shows the same information but for wastewater. The stormwater capacity and potential implications for the development capacity show a more contained pattern relative to the wastewater situation. This is because areas like Havelock North have higher slope gradients (are hilly). Despite being focused on Hastings, the stormwater capacity constraints reduce the development potential that is available at an aggregate level. Over the current and short term, the flagged catchments account for 260 standalone dwellings (capacity) and 805 potential dwellings (capacity) in the commercial areas. Looking

forward, most of the effects are in the long term (30 year) timeframe with an additional 640 standalone dwellings (commercially feasible) removed from the assessment. The long-term limits on residential development in the commercial areas are muted, with 55 potential dwellings impacted over the medium term (2023-2030) and 20 over the long term (by 2050).

However, as mentioned, additional research is needed to refine these figures. A conservative position is taken, and this capacity is excluded from the analysis. We have assumed that other infrastructure requirements (like drinking water) will support development and be available as the developments take place.

When the different constraints are combined, then the overall impact becomes clearer. As mentioned, these are mostly associated with the long term. Most of the constraints are also identified in catchments around Hastings. The following table summarises the uncertain capacity.

Redevelopment (net)			Infill			Vacant		
Standalone	Medium Density	Com.Areas	Standalone	Medium Density	Com.Areas	Standalone	Medium Density	Com.Areas
Detached	Attached		Detached	Attached		Detached	Attached	
1,675	120	1,305	415	20	150	70	-	5

Table 5-7: Hastings – Infrastructure Capacity (Wastewater)

	Current Capacity (Total)			2020-2023 Additional Capacity			2020-2023 Additional Capacity			2020-2023 Additional Capacity		
	Max (Res)	Max (Med)	Max (Comm)	Max (Res)	Max (Med)	Max (Comm)	Max (Res)	Max (Med)	Max (Comm)	Max (Res)	Max (Med)	Max (Comm)
No1	360	75	-	10	-	-	50	-	-	235	-	-
	Existing capacity issues in local pipes and wider receiving system means that development will be constrained in the short to medium term. Major works to enable 30yr projections.											
	The development capacity is excluded from the overall assessment.											
No11	190	110	20	5	-	-	40	-	-	230	-	-
	No comment from Council											
	This capacity is included in the analysis											
No12	30	-	205	5	-	-	-	-	-	60	-	40
	The local networks have sufficient capacity, and it appears that the network would be able to accommodate the capacity											
	This capacity is included in the analysis											
No13	155	-	830	5	-	20	30	-	45	230	-	180
	Up to 10yr should be ok, 30yr will require upgrades depending on where in the catchment it occurs, mainly on urban edge.											
	The short and medium term capacity is included in the analysis but the long term capacity is flagged for further analysis to confirm the capacity											
No16	20	-	65	-	-	-	10	-	5	-	-	20
	Significant limitations in this catchment because it is low lying and is already subject to both catchments as low lying and existing problems. Major infrastructure required.											
	This capacity is excluded from the analysis											
No18	10	-	-	-	-	-	-	-	-	-	-	-
	All catchments drain to the major Havelock North streams. There are already issues here in both urban and rural residential parts and in the CBD. Attenuation must be imposed and topography in elevated areas will be difficult to service. Major issue is stream capacity and flooding risk to adjacent properties along with high velocities and stream bed erosion requiring major capital works.											
	This capacity is excluded from the analysis											
No19	175	-	-	5	-	-	20	-	-	40	-	-
	All catchments drain to the major Havelock North streams. There are already issues here in both urban and rural residential parts and in the CBD. Attenuation must be imposed and topography in elevated areas will be difficult to service. Major issue is stream capacity and flooding risk to adjacent properties along with high velocities and stream bed erosion requiring major capital works.											
	This capacity is excluded from the analysis											
No20	485	-	70	10	-	5	45	-	5	135	-	15
	All catchments drain to the major Havelock North streams. There are already issues here in both urban and rural residential parts and in the CBD. Attenuation must be imposed and topography in elevated areas will be difficult to service. Major issue is stream capacity and flooding risk to adjacent properties along with high velocities and stream bed erosion requiring major capital works.											
	This capacity is excluded from the analysis											
No21	325	-	50	10	-	-	25	-	-	70	-	-
	All catchments drain to the major Havelock North streams. There are already issues here in both urban and rural residential parts and in the CBD. Attenuation must be imposed and topography in elevated areas will be difficult to service. Major issue is stream capacity and flooding risk to adjacent properties along with high velocities and stream bed erosion requiring major capital works.											
	This capacity is excluded from the analysis											
No3	160	35	70	5	-	5	30	-	5	160	-	15
	Up to 10yr requires a mix of upgrades and new infrastructure plus attenuation. 30yr requires new on top of 10yr											
	The short and medium capacity is included and the long term capacity is flagged for additional analysis											
No4	175	60	-	10	-	-	40	-	-	220	-	-
	Up to 10yr requires a mix of upgrades and new infrastructure plus attenuation. 30yr requires new on top of 10yr											
	The short and medium capacity is included and the long term capacity is flagged for additional analysis											
No5	65	-	-	-	-	-	5	-	-	105	-	-
	Significant constraints in the industrial area as most of this area is not serviced by s/w infrastructure											
	Flaxmere residential –Current situation is infrastructure is generally fully utilised so requires full attenuation or new and upgraded infrastructure to be built. Work on upgrades being required.											

	The short and medium capacity is excluded and the long term capacity is flagged for additional analysis												
No6	365	20	-	15	5	-	35	-	-	365	-	-
	Significant limitations in both catchments as low lying and existing problems. Major infrastructure required.												
	This capacity is excluded from the analysis												
No7-1	120	10	95	5	-	-	25	-	-	125	-	50
	Upgrades required after 10yrs. Some minor works needed to existing infrastructure to accommodate the growth												
	The short and medium capacity is included and the long term capacity is flagged for additional analysis												
No7-2	200	-	-	10	-	-	10	-	-	40	-	-
	Up to 10 yrs is probably achievable as is, 30yrs requires new infrastructure and attenuation												
	The short and medium capacity is included and the long term capacity is flagged for additional analysis												
No7-3	35	-	-	-	-	-	-	-	-	20	-	-
	Up to 10yr requires a mix of upgrades and new infrastructure plus attenuation. 30yr requires new on top of 10yr												
	The short and medium capacity is excluded and the long term capacity is flagged for additional analysis												

Table 5-8: Hastings – Infrastructure Capacity (Stormwater)

	Current Capacity (Total)			2020-2023 Additional Capacity			2020-2023 Additional Capacity			2020-2023 Additional Capacity		
	Max (Res)	Max (Med)	Max (Comm)	Max (Res)	Max (Med)	Max (Comm)	Max (Res)	Max (Med)	Max (Comm)	Max (Res)	Max (Med)	Max (Comm)
Southland Road	180	5	-	5	-	-	25	-	-	190	-	-
	This catchment is reliant on pumping. The capacity is likely to be sufficient over the medium term before upgrades would be required (pump station and rising main) to enable the long-term capacity.											
	The short-term capacity is included and the long-term capacity is flagged											
Riverslea Drain	155	-	10	5	-	-	10	-	-	115	-	5
	This catchment drains to main eastern interceptor. The short and medium term capacity is sufficient but enabling the long term will require investment. The Council's existing workstream will deliver the required infrastructure to support the 30 year capacity.											
	The short-term capacity is included and the long term capacity is flagged											
Mallory drain	130	-	35	10	-	-	15	-	-	120	-	-
	The medium term is sufficient but additional investment would be needed for the long term (30 years).											
	The short-term capacity is included and the long term capacity is excluded											
Tomoana	285	105	240	15	-	-	60	-	5	340	-	35
	This is a large, gravity fed catchment. Some local upgrades might be necessary depending on where the development occurs. There is sufficient capacity											
	This capacity is included from the analysis											
Upper Southland	130	105	-	-	-	-	20	-	-	130	-	-
	Local upgrades are needed and will be completed, but no major works are required.											
	This capacity is included from the analysis											
Ruahapia Stream	260	10	805	10	-	20	50	-	55	280	5	225
	Close to Tomoana and will generally be ok. The rest is significantly restricted due to Caroline Rd upgrades (in LTP) until these works are completed.											
	Short- and medium-term capacity is flagged but long-term capacity is included											
Lower Southland	145	-	110	5	-	-	35	-	5	220	-	20
	This area is influenced by infiltration and inflow (I&I) and is l reliant on pumping. The 30-year capacity may be achievable if I&I can be mitigated.											
	The short-term and medium-term capacity is included, and the long-term capacity is flagged											
Railway Drain	15	-	105	5	-	-	-	-	-	45	-	20
	Unlikely to have an impact.											
	This capacity is included in the analysis											
Windsor Drain	165	40	-	5	-	-	20	-	-	115	-	-

	Drains to main eastern interceptor. The catchment has sufficient capacity to enable the short- and medium-term capacity. The long term is subject to delivering planned investments but these are in the LTP The short and medium capacity is included, and the long-term capacity is also included												
Kaiapo Catchment	45	-	-	-	-	-	5	-	-	100	-	-	
	Relies on pumping so upgrades may be necessary to pumps and rising mains between 10 and 30 years The short term is sufficient by the medium and long terms are flagged for additional analysis												
Collinge Drain	230	60	-	10	-	-	25	-	-	95	-	-	
	Pumped catchment nearing capacity. Upgrades to pumps etc. after 10 and closer to 30 years The short term and medium-term capacity are sufficient by the long terms are flagged for additional analysis												
Mahora	210	-	-	5	-	-	10	-	-	35	-	-	
	Up to 10yr is ok. 30yr requires significant upgrades to local infrastructure, pump stations and rising mains. The short term and medium-term capacity are sufficient by the long terms are flagged for additional analysis												

Summary - stormwater

	Current			**2020-2023 Additional Capacity**			**2023-2030 Additional Capacity**			**2030-2050 Additional Capacity**		
	Max (Res)	Max (Med)	Max (Comm)	Max (Res)	Max (Med)	Max (Comm)	Max (Res)	Max (Med)	Max (Comm)	Max (Res)	Max (Med)	Max (Comm)
Flagged	260	10	805	10	-	20	50	-	55	640	-	20

5.4.2 Napier – Infrastructure ready

Napier City Council staff provided information about the infrastructure capacity across the city, and the key points are highlighted below.

Given Napier's topography and the level of investment required to manage stormwater, there is currently limited capacity in the stormwater network to accommodate further growth. In terms of accommodating housing development (and capacity) in the short, medium, and long-term, the best approach is to assume hydrological neutrality and 'no worsening' of the situation. To enable continued growth, that is plan enabled, over the medium and long term, on site stormwater mitigation is required. Modelling and assessments completed by the Council have identified alternative ways to manage the growth pressures. Three different approaches have been identified based on spatial locations throughout the City. These approaches are (the colours refer to the areas indicated in Appendix 20):

- For the green areas within the red boundary, there are no stormwater capacity issues so development can go ahead as plan enabled.
- For the yellow areas within the red boundary, a $7,000 development premium per site for onsite stormwater mitigation is added to the overall development cost. This additional cost is applied for the short term (3 years) and the medium term (15 years). It is removed in the long term as upgrades to the network are progressed.
- For the purple areas within the red boundary, a $7,000 development premium per site for onsite stormwater mitigation needs to be added for the short, medium, and long term.

We understand that the draft District Plan will have additional stormwater rules to deal with the above, but the current district plan does not explicitly have, or require these aspects. However, all land development (including subdivision and multi-unit development) under the Operative District Plan is required to comply with the Code of Practice (e.g., see Rule 5.10.1). Section B.12 of the Code of Practice addresses the performance standards required for stormwater drainage and flood control. Several standards apply including, "q. minimise adverse effects on the existing stormwater system". The Council applies these standards on a case-by-case basis depending on the capacity of stormwater servicing a site and the ability to minimise adverse effects, including potential increased flooding hazards, through requiring on-site detention. The catchment-area approach provides more clarity about the requirements for onsite stormwater management at the time of development, under these existing Code provisions. Including the additional financial resource (cost) in the feasibility assessment increases the effective costs and lifts the hurdle for feasible capacity. The approach is consistent with taking a conservative approach. **If the $7,000 loading is removed, then over the long term, 220 additional dwellings will become feasible. Therefore, while this approach adds cost to the development, the overall impact is relatively small when considering the alternative (of not allowing any development due to stormwater constraints)**

The second key infrastructure component is wastewater. According to the Council, there are no pressing constraints in the wastewater supply. The housing capacity projections for the short term (next 3 years) can be provided for without any major constraints from a wastewater perspective. However, the main constraint is the wastewater outfall and funding for a replacement starts in 2024. Once the wastewater outfall is replaced, the housing capacity projected in the medium and long term can be provided for. The only comment is that the Greenmeadows wastewater pump station that serves Taradale and the Mission will become

constrained at some point, depending on the density of the Mission development and how quickly it is developed – this is flagged in the wastewater masterplan.

Finally, there are no fundamental drinking water supply constraints that would constrain plan-enabled growth in the short term, or the medium or long term based on the LTP plans (e.g., new reservoirs).

5.5 Greenfield Capacity - Napier and Hastings

The greenfield capacity for both Napier and Hasting is presented in Figure 5-4, summarising information provided by the Councils. Councils' data provides an annual breakdown of when the capacity will be ready for the market. Hence, the assumption is that the capacity is then infrastructure ready. For the current period, the capacity identified/linked to the 2020 year is as reported by the Councils. For the 2023 timeframe, the anticipated capacity that will come to the market between 2021 and 2023, is reported. The medium term (2030) data shows capacity coming to the market between 2023 and 2030 and the long-term capacity reflects the 2030 to 2050 period.

Overall, the planned greenfield capacity and development pipeline is underway with capacity coming online (available to the market) over the next few years. Over the short term (current and 3 year period) capacity for 1,152 dwellings will come onto the market in Hastings, and 1,151 for Napier. This capacity is then able to be used over the medium term, during which an additional 528 and 967 (Hastings and Napier) capacity is expected to come to the market. Over the long term, the available capacity is expected to continue to come to the market. And over the long term (2030 – 2050), additional capacity of 987 and 946 is expected to be developed.

Capacity	Current	YE 2023	YE 2030	YE 2050
Hastings	569	583	528	987
Napier	250	901	967	946

Figure 5-4: Greenfield timing

Timing of the greenfield development points to the following important aspects:

1. Over the overall assessment period, the capacity is distributed unevenly, with a total of 2,667 and 3,064 additional dwelling capacity across Hastings and Napier, respectively.
2. The planned capacity is expected to be delivered in different tranches – the first is over the short-term (to 2023) when around 10% of the expected capacity will come online through developments in Hastings, and another 16% in Napier. In number terms, the additional capacity added is estimated at 583 and 901. This is in additional to the current capacity (14% of the total and 819 units). The next tranche relates to planned developments over the period to 2030. During this period, another 528 and 967 lots is expected to be market ready across Hastings and Napier, respectively. Combined, this is 26% of the total greenfield capacity. Over the long term (2030-2050), 34% of the greenfield capacity is expected.
3. Based on the available data, a gap in the pipeline is visible toward the end of the 2023-2030 period, heading into the long-term timeframe. During 2027 and 2029/30, no additional capacity will be added. Some element of development activity is likely to continue, with developers working to smooth delivery. However, this gap will need to be reconsidered to identify ways of improving the alignment between market demand and supply. We have assumed that commercial developers will complete due diligence assessments before embarking on development activities. This will inform their activities (e.g. size, typology and pricing). A direct consequence of this is that developers are likely to 'meet the market' in terms of price points and typology. A portion of the market is associated with social housing providers. While their development requirements (e.g. profit and financial returns) differ, they will also undertake due diligence assessments to optimise the return[60] on their investments. The key point is that there is likely to be a link/relationship between the demand and supply, and the development sector will respond to these conditions (and this includes affordability) and reflect these in terms of market timing (i.e. when lots are brought to market).

It is worth noting that the assessment considers the current zones and identified (earmarked) greenfield locations. This means important matters like protecting productive soils are indirectly considered (this assumes that the zoning and identified greenfield area reflect and protect productive soils). In terms of dealing with natural hazards, like liquefaction and slope stability, again we have relied on the zoning and the identified greenfield areas assuming that these already reflect and capture the natural hazard issues. The feasibility assessment includes extraordinary cost items associated with the liquefaction and similar costs.

5.6 Summary

This section discussed the capacity that exists in Napier and Hastings and showed the different limitations. The analysis shows that the level of plan enabled capacity is considerable across both Napier and Hastings. The shift in densities in Napier lifts the plan enabled capacity. Considering the financial aspects of development and a developer's margin, reduces the potential capacity. Despite this, the commercially feasible capacity and the level of potential capacity remain relatively high looking forward.

However, the effects of infrastructure constraints and uncertainty is mixed between Napier and Hastings. In Napier, the infrastructure constraints are mitigated to a degree by using on-site measures. Adding the additional costs to the commercial feasibility assessment does not reduce the overall capacity in any

[60] However, this return will also include other, non-financial, criteria.

meaningful way. In Hastings, the infrastructure constraints have a significant impact on the overall level of feasible development capacity. This is especially the case over the long term where there is uncertainty around the ability of infrastructure to cope with growth. In some catchments, this uncertainty means that development could be accommodated if infrastructure upgrades are completed but the required investment and funding is not yet understood or committed. Consequently, the development capacity associated with these catchments is not included in the main summary tables. Instead, it is reported separately to show the potential capacity that could be enabled by the infrastructure investments. This also shows the link to housing developments and the need for infrastructure investments. The following table summarises the main indicators of the capacity assessment.

HASTINGS				
Type of capacity	**Timeframe**	**Detached**	**Attached** (in commercial areas)	**Greenfields**
Plan enabled capacity		7,645	3,645	-
Feasible capacity (Overall)	Current	3,900	1,500	-
	3y	4,015	1,535	-
	10y	4,375	1,605	-
	30y	6,475	1,920	-
Greenfield and Infrastructure supported	Current	2,105	1,320	569
	3y	2,155	1,340	1,152
	10y	2,330	1,405	1,680
	30y	2,405	1,410	2,667
Unconfirmed Instructure	*30y*	*1,745*	*1,310*	

NAPIER				
Type of capacity	**Timeframe**	**Detached**	**Attached**	**Greenfields**
Plan enabled capacity	Current	7,380	4,820	
	3y	11,540	4,820	
	10y	15,400	4,820	
	30y	15,400	4,820	
Feasible capacity and greenfields (infrastructure supported)	Current	480	1,790	250
	3y	880	2,490	1,151
	10y	1,750	3,140	2,118
	30y	6,400	3,900	3,064

6 Reconciling supply and demand

Section summary: Just because a development is commercially feasible, does not mean that it will actually happen. This section expresses the feasible capacity in terms of the Reasonably Expected to be Realised (RER) capacity. Defining the RER is done by considering the development patterns, like the relationship between detached and attached dwellings, urban-rural (greenfield) development options and so forth. Importantly, the RER also considers the infrastructure constraints.

The sufficiency is determined by comparing the RER against the demand outlook with the competitiveness margin included and excluded. The demand outlook is based on medium-high scenario (i.e. the average between the medium and high projection series from StatsNZ).

Hastings

The analysis suggests that the RER is sufficient relative to the demand outlook over the short and medium term, but a shortfall is identified over the long term. The long-term RER plus the current estate is estimated at 37,950. This reflects the anticipated development patterns and is aligned with the relative splits of greenfield vs urban (infill and redevelopment) capacity. A relative shift towards higher densities is assumed, and this mirrors development shifts towards higher densities across other cities in NZ. Regardless, the long-term deficit remains. Even if the uncertain infrastructure capacity is included, a deficit remains over the long term. The scale of the deficit is between 190 and 1,190 and the difference is the competitiveness margin. Clearly, this range shows that the deficit is likely to emerge towards the end of the long term.

The analysis suggests that there is sufficient capacity over the short and medium-terms if the competitiveness margin is applied. This view holds under the condition that the market will respond in a way that uses the available capacity across the different typologies, detached and attached, as well as urban and greenfield developments. This is an important condition and over the medium term, there is little difference between the demand and capacity. Therefore we suggest that the Council put a strong monitoring programme in place to ensure that sufficient capacity is maintained.

Napier

The RER for Napier is compared against the demand outlook, with the competitiveness margin included and excluded. There is sufficient development capacity available in the market to respond to the different demand levels. If the higher demand level (i.e. including the competitiveness margin) is used, then the RER will still be sufficient because different development pathways can be pursued. Over the short and medium terms, the relative mix of greenfield-urban is expected to be in the 67%-69% range (share of development in greenfields and associated with the current landscape with greenfield capacity). This is high by historic levels (55% over 25 years). However, over the long term, the ratio is expected to move towards historic levels, reflect a shift towards higher density housing and development within the existing urban areas. In terms of typology, a shift towards higher density developments (attached dwellings) is expected. The analysis suggests in Napier, there is sufficient capacity over the short, medium, and long terms, with the competitiveness margin included. This view holds under the condition that the market will respond in a way that uses the available capacity across different typologies, detached and attached, as well as urban and greenfield developments.

This section deals with 'Reasonably Expected to be Realised' and 'Sufficiency'. Clause 3.2 of the NPS-UD specifies that Councils must provide at least sufficient development capacity in the district to meet the expected demand for housing:

(a) in existing and new urban areas; and
(b) for standalone and attached dwellings; and
(c) in the short term, medium term, and long term.

That development capacity must be plan enabled, infrastructure ready, feasible and reasonably expected to be realised and include the appropriate competitiveness margin. The requirement to assess sufficiency for housing development capacity is also set out in clause 3.27 of the NPS-UD.

The results of the analysis are presented using the population (household) growth scenarios discussed in Part 1 of the report. Infrastructure capacity has been identified as a constraint in Hastings, but the specific scale of this limit is currently unknown and additional work is needed to confirm the magnitude of this issue. The assessment takes a conservative approach, but this means that a share of Hasting's development capacity associated with the infrastructure uncertainties is excluded from the main part, but reported separately.

6.1 Hastings Results

The Reasonably Expected to be Realised (RER) and sufficiency assessment for Hastings is based on the several key patterns. The RER patterns are informed by:

- An analysis of consent data to reflect the historic relationship between growth accommodated across the region and in different types of locations,
- The potential capacity between commercially feasible capacity, the location of infrastructure supported capacity and the overall level of demand across the district,
- The estimated value bands across which capacity is feasible and the relative location of that potential supply.
- The RER capacity is considered against the anticipated demand for situations with the competitiveness margin included and excluded.

These patterns provide a starting point from where to consider how reasonable different development patterns would be. However, it is not possible to remove all subjectiveness from the RER assessment and whether a development occurs at a future point is subject to the market conditions at that time. An important consideration is the degree to which (future) capacity supports development activity. It is important to note that the RER estimated are not absolutes or guaranteed outcomes.

Based on the **developer's feedback, there is a clear preference for large, greenfield developments.** Reportedly, this is due to the relative cost-return difference compared to infill activities. It was also noted that greenfield developments are 'easier' to develop due to economies of scale. However, the developers also noted that this does not preclude them from undertaking (at scale) infill developments. If a large deficit is experienced between the overall growth and the greenfield capacity, then a further shift towards infill (brownfield) developments would be expected. Similarly, the interplays between house prices, demand for different typologies, affordability, and development costs (plus developers' margins) also impact on the RER capacity. The results are presented as a range of outcomes to highlight the potential situation looking forward. The base population growth scenario (aligning with StatsNZ's medium-high) forms the basis for the discussion.

Clause 3.22 of the NPS-UD requires that a competitiveness margin of 20% in the short and medium term and 15% in the long term be added to projected demand. As mentioned earlier in the report, the purpose of the margin is to support choice and competitiveness in housing and business land markets by ensuring that Council enables at least 15-20% more capacity than required to meet demand. The margin is applied to the change in demand to give a sense of the scale required. However, distributing the margin across value bands is challenging because in some cases, demand per value band shifts down (negative growth) and allocating the margin would therefore also be negative, reducing the size of the margin. Clearly, this would be inconsistent with the NPS-UD. As a solution, the margin was allocated across value bands using a mix of approaches, e.g.:

- pro-rata based on the size of the demand (in the relevant year), and
- distributed based on the net change (per value band).

Ultimately, the aim was to ensure that the margin was allocated in a way that ensure that the total (aggregate) demand has the necessary competitiveness margin. Table 6-1 summarises the results for Hastings. The table shows the following components:

- Demand based on the population (household) projections,
- The demand including the competitiveness margin,
- The reasonably expected to be realised capacity, and
- The relative sufficiency.

The table provides a breakdown across the short, medium and long terms. The table also indicates the development capacity that is associated with demand excluding the competitiveness margin, including the competitiveness margin as well as the type of development patterns that would be required for the RER capacity to meet the sufficiency criteria/thresholds.

Table 6-1: Hastings RER and Sufficiency – Summary

	RER Capacity			Demand Excluding Competitiveness Margin			Net position		
	3y	10y	30y	3y	10y	30y	3y	10y	30y
0-399	12,250	12,250	12,250	13,050	14,850	10,450			
400-699	10,200	10,450	10,100	10,550	5,400	14,400			
700-999	4,100	5,200	4,950	2,950	8,900	6,600			
1m-1.3m	2,700	3,300	5,300	2,600	2,650	3,450			
1.3m-1.65m	3,650	4,550	4,450	3,750	3,850	3,000			
+1.65m	-	-	900	-	-	4,400			
SUM	**32,950**	**35,700**	**37,950**	**32,920**	**35,650**	**42,290**	**Sufficient**	**Sufficient**	**Deficit**
	Potential RER capacity - to satisfy Demand plus margin			**Demand Including Competitiveness Margin**			**Net position**		
	3y	10y	30y	3y	10y	30y	3y	10y	30y
0-399	12,250	12,250	12,250	13,200	14,950	10,450			
400-699	10,300	10,600	10,100	10,650	5,400	15,000			
700-999	4,300	5,450	5,250	3,000	9,300	6,600			
1m-1.3m	2,900	3,350	5,750	2,600	2,650	3,500			
1.3m-1.65m	3,650	4,600	4,600	3,800	3,850	3,000			
+1.65m	-	-	1,100	-	-	4,700			
SUM	**33,400**	**36,250**	**39,000**	**33,240**	**36,200**	**43,290**	**Sufficient**	**Sufficient**	**Deficit**
	Potential RER capacity plus Infrastructure - to satisfy Demand plus margin			**Demand Including Competitiveness Margin**			**Net position**		
	3y	10y	30y	3y	10y	30y	3y	10y	30y
0-399	12,250	12,250	*12,250*	13,200	14,950	10,450			
400-699	10,300	10,600	*10,100*	10,650	5,400	15,000			
700-999	4,300	5,450	*5,490*	3,000	9,300	6,600			
1m-1.3m	2,900	3,350	*7,400*	2,600	2,650	3,500			
1.3m-1.65m	3,650	4,600	*5,550*	3,800	3,850	3,000			
+1.65m	-	-	*1,310*	-	-	4,700			
SUM	**33,400**	**36,250**	**42,100**	**33,240**	**36,200**	**43,290**	**Sufficient**	**Sufficient**	**Deficit**

The key points regarding sufficiency are evident from the table:

1. Comparing RER against the demand *without* the competitive margin delivers sufficient capacity over the short and medium term but a deficiency is identified over the long term. Over the long term, the RER is estimated at 37,950. Over time, a subtle shift towards higher density developments (attached dwellings) across the Hastings area can be expected. The higher densities are associated with the medium density and commercial zones. The relative shift towards higher densities mirrors development patterns and shifts towards higher densities a seen across other cities in NZ (e.g. Hamilton, and Dunedin) and is seen as reasonable.
2. Comparing the RER capacity against the demand outlook with the competitiveness margin included, reveals that there is deficiency across the long-term timeframes. However it is important to note that the RER could be higher in response to greater development activity across Hastings. In fact, if the assumptions are adjusted to reflect a more active/responsive development sector[61], delivering greater dwelling numbers to the local population in a way that mirrors the demand plus the margin, then the deficit is reduced. However, a deficit remains. The deficit over the long term is estimated at 4,250.
3. Considering the uncertainty associated with infrastructure provision covering large areas (especially over the long term), the potential contribution of removing the uncertainty and enabling the infrastructure issues, are highlighted. The long-term RER capacity is adjusted upward to show this contribution, and this lifts the potential capacity to 42,100. While a large upward change, this addition does not ensure that sufficient capacity is delivered across Hastings regardless of whether the competitiveness margin is included or excluded. If the competitiveness margin is excluded, then the shortfall over 30 years is 190 but with the margin included, the difference is 1,190.

Over time, urban development markets align the type of products with household demands. In turn, this captures financial (affordability) and housing preferences (in terms of the trade-offs between location, typology, and budget constraints). In the Hastings context, this means shifts between greenfields and rural (e.g. lifestyle) areas, towards urban (redevelopment and infill) as well as a shift from detached to higher density, attached dwelling formats.

The RER analysis shows the required shifts that are needed to achieve the required development level and the following relativities apply:

- The attached-detached ratio has remained stable over the past 25 years, with detached dwellings accounting for between 89% and 91% of consents. In new development areas, detached dwellings accounted for around two thirds of developments. For the RER capacity, the short, medium and long term, the ratio of detached vs attached dwellings shifts towards more attached dwellings. This is consistent with moves towards intensification. Looking at the potential RER, the development shift that would be needed to achieve the demand plus competitiveness margin, would see a more substantial shift towards attached dwelling formats, specifically over the short and medium term, but less pronounced over the long term. The long term capacity is below that required even if the different typologies are developed to the highest possible level.

The analysis suggests that there is sufficient capacity over the short and medium-terms if the competitiveness margin is applied. This view holds under the condition that the market will respond in a way that uses the available capacity across the different typologies, detached and attached, as well as urban and greenfield

[61] As implied by the competitiveness margin.

developments. With reference to the medium term, the analysis shows that the demand and RER to be very closely matched. This suggests that a strong monitoring process is needed to track:

The supply-demand balance over the medium term to ensure that there is sufficient development opportunities if the shift towards higher densities is too slow, or if the market maintains a preference for greenfield developments over infill/redevelopment options.

6.2 Napier Results

Importantly, RER is not an estimate of actual up-take of capacity, which depends on several factors at the time such as market conditions, household preferences, developer confidence, and so on.

The modelling estimates the future patterns of RER capacity across Napier, considering several components including:

- Analysis of Code of Compliance ("CCC") and building consent data to establish recent patterns and relative proportions of development activity occurring across Napier's existing urban and greenfield environment.
- Likely yields in the commercially feasible greenfield areas[62], and the corresponding levels of development across different parts of the existing urban environment.
- The level of additional demand anticipated across value bands (with and without the competitiveness margin)
- The extent to which feasible development is limited by infrastructure constraints.[63]

Table 6-2 presents the results of the sufficiency assessment for Napier. It outlines the potential dwelling estate (current estate plus RER capacity) within each period across the district's urban environment and compares it with the estimated demand for dwellings by households. The level of demand is shown firstly excluding the competitiveness margin, and then including the competitiveness margin.

Table 6-2: Napier RER and Sufficiency – Summary (Napier)

	RER Capacity			Demand Excluding Competitiveness			Net position		
$'000	3y	10y	30y	3y	10y	30y	3y	10y	30y
0-399	2,350	2,350	2,350	12,000	13,350	8,950			
400-699	16,500	16,850	17,000	8,350	4,300	6,800			
700-999	6,800	8,100	10,300	2,350	4,400	4,750			
1m-1.3m	1,150	1,150	2,300	2,000	4,400	4,700			
1.3m-1.65m	400	400	500	2,650	2,650	2,500			
+1.65m	200	200	200	-	-	4,900			
SUM	**27,400**	**29,100**	**32,600**	**27,400**	**29,050**	**32,550**	**Sufficient**	**Sufficient**	**Sufficient**
	Potential RER capacity - to satisfy			**Demand Including Competitiveness**			**Net position**		
	3y	10y	30y	3y	10y	30y	3y	10y	30y
0-399	2,350	2,350	2,350	12,100	13,450	8,950			
400-699	16,550	17,000	17,150	8,400	4,300	6,800			
700-999	6,950	8,450	11,100	2,350	4,500	4,900			
1m-1.3m	1,150	1,200	2,350	2,000	4,500	4,800			
1.3m-1.65m	400	400	500	2,700	2,650	2,500			
+1.65m	200	200	200	-	-	5,150			
SUM	**27,600**	**29,600**	**33,650**	**27,600**	**29,400**	**33,100**	**Sufficient**	**Sufficient**	**Sufficient**

[62] Based on information provided by the Councils.

[63] Napier City Council reported no significant infrastructure constraints (three waters and roading), other than what is discussed in Section 5.4.

It is acknowledged that information about the current estate and resident households could not be perfectly aligned, with a variance of around 650 between households and dwellings. This disparity is like the difference reported in Census 2018, when 26,110 households were resident in Napier, and the private dwelling count was estimated at 25,440 (670 difference). To prevent this from skewing the conclusions about sufficiency, the current number of dwellings were adjusted to match the number of households.

The key points regarding sufficiency when comparing RER against the demand without the competitiveness margin, are:

- There is sufficient capacity over the short, medium and long term in Napier at a city-wide level. Over the long term, the potential dwelling estate is estimated at 32,600. This includes RER capacity for an additional 3,500 dwellings over the long term.
- Over the short and medium term the anticipated development patterns mirrors the current distribution of development between, greenfield and urban area. Over time this is expected to change as more intensification is enabled i.e. infill and redevelopment capacity.
- In terms of typology, there is a shift towards development of higher density developments (attached dwellings) over time. Currently, less than a fifth of new dwellings (within the main urban area) are attached dwellings. At present attached dwellings are enabled (and thus modelled) in the Commercial zones, Mixed Use zone and Inner City zone. A relative shift towards higher densities is expected when considering development patterns and shifts observed across other cities in NZ (e.g. Hamilton, Tauranga, Rotorua, etc.). This shift is in response to affordability pressures and can be expected to occur locally.

Comparing RER against the demand outlook (including the competitiveness margin), reveals that there is sufficient capacity to accommodate the outlook and the margin. This is based on the market's ability to respond using a slightly different mix (spatially and in terms of typology). In fact, adjusting the RER assumptions, to mimic a more responsive development sector, delivers greater dwelling numbers, suggesting sufficient capacity over the short, medium and long term. Under these settings, the expected additional RER over the long term is estimated at 4,000 additional dwellings, implying the potential estate is 33,650 dwellings.

As mentioned, urban development is driven by various factors so that the type of products (dwellings) being delivered, align with household demands, which in turn captures households' affordability and housing preferences considerations. In the Napier context, this suggests a gradual shift away from greenfield development towards brownfield (redevelopment and infill) and from detached to higher density, attached dwellings. These shifts are not unique to Napier.

As with Hastings, the RER analysis is used to show the required shifts to achieve the necessary development level. The key points are:

- The attached-detached ratio has remained relatively stable over the past 25 years, with detached dwellings accounting for the bulk of building consents, across all of Napier. The ratio is higher (weighted towards detached formats) for recently developed areas. In infill areas, the weighting shifts towards higher density typologies.
- Historically, large shares of Napier's urban development occurred in greenfield areas. The RER analysis shows that Napier would have sufficient RER capacity if the share of growth occurring in greenfield areas track around historic levels.
- For RER capacity within existing urban areas, the share of detached dwellings decreases slightly, over the short term and medium term. Similarly, over the long term, the shift is (slowly) towards higher

density and attached dwellings. This mirrors the patterns observed in household development patterns across NZ. In new development areas the share of detached dwellings could remain at its current level, and sufficient RER capacity could be achieved.

- Looking at the potential RER, the development ratios that would be needed to achieve the demand plus competitiveness margin would be very similar. This is because the level of feasible capacity is such that greater dwelling numbers could be delivered if market conditions allowed/required.

The analysis suggests that in Napier, there is sufficient capacity over the short, medium and long terms even with the competitiveness margin applied. This view holds under the condition that the market will respond in a way that uses the available capacity across the different typologies, detached and attached, as well as urban and greenfield developments.

It is worth recognising that the Napier-Hastings area acts as a broad market area, competing for development activity and developers' attention. Within this broad market, there are submarkets for different dwelling typologies with different typologies.

6.3 Other considerations

The assessment is based on the residential patterns and profiles as captured in official statistics. It is possible to add additional layers to the demand analysis to show further detail around the demand outlook. One such approach is to refine dwelling demand further to considering housing need in a way that also considers potential backlogs and mismatches dwelling numbers and households. Specifically, this relates to situations beyond social housing, to also consider sharing situations. Importantly, 'housing need' is a normative concept. The conditions in which someone can be considered as 'in need' are inherently based on assumed 'acceptable standards'. Steps to define the standards, or benchmarks, are subjective and require some judgement.

The level of latent demand, or the housing backlog, is driven by factors like:

- Affordability across owned, and not owned segments,
- Appropriateness of the housing stock vis-à-vis housing demand (i.e. unsuitability of housing).

Affordability levels across different household types, income bands and ethnicity have been discussed earlier in the report and provides an indication of core housing demand levels. This then leads to the appropriateness of the housing stock. The magnitude of the latent demand is impacted by the interplay between factors, and manifests in terms of metrics like **overcrowding** and **concealed demand** (sharing and multi-family households).

There are several different ways to measure 'crowding'. StatsNZ uses the Canadian National Occupancy Standard (CNOS) which calculates the number of bedrooms needed based on the demographic composition of a household[64]. This yields the bedroom requirements of a household based on:

- There should be no more than two persons per bedroom,
- Children less than 5 years of age of different sexes may reasonably share a bedroom,
- Children 5 years of age or older of opposite sex should have separate bedrooms,
- Children less than 18 years of age and of the same sex may reasonably share a bedroom; and

[64] Statistics NZ, April 2020. https://www.stats.govt.nz/news/almost-1-in-9-people-live-in-a-crowded-house

- Single household members 18 years or older should have a separate bedroom, as should parents or couples.

Using the above requirements, a household that requires at least one additional bedroom to satisfy the requirements are considered to experience some crowding.

The Census (2018) reported that 6.5% of Hastings' households are living in crowded conditions. Of the 1,730 households in crowded conditions, 30% are in severely crowded (520) homes. In Napier, Census 2018 reports that there are 250 households in severely crowded and 710 in crowded conditions. Overall, 4.2% of Napier's households live in crowded conditions. Across NZ, 5.7% of households live in crowded conditions, suggesting that Hasting has a relatively high concentration, but the Napier situation is slighlty better.

It is however important to note that crowding points to mismatch between the accommodation attributes (of the housing) and the household's needs. It does not automatically mean that there is a need for additional housing.

Another dimension to consider is concealed households. As mentioned, concealed demand are family units or single adults living within 'host' households. This can be extended to sharing households i.e. that includes lodgers and others who share of facilities within a dwelling but do not cater collectively or share a living room.

Section 2.5 describes the outlook across different household types, including multi-family households. The estimates show there are in the order of 1,780 multi-family households across Napier and Hastings combined (900 and 880 respectively). The number is expected to increase over the NPS-UD period – with an additional 80 multi-family households in Napier and an additional 30 in Hastings. It is possible to provide high level, and indicative estimates, of the potential additional housing needs associated with this group using some assumptions. Assuming that there are two families in each multi-family household, and that each family represents demand for a dwelling, then the additional demand associated with this household category could be up to 900 in Napier and 880 in Hastings (that is, doubling the dwellings associated with multi-family households enabling each household to accommodate a dwelling). There is however limited information about the number of families associated with multi-family households and these estimates are based on high-level assumptions.

The housing and dwelling proportions revealed in official data and as analysed in the earlier sections of the report form the basis for the NPS-UD sufficiency assessment. No additional allowances are made to response to multi-family households, or crowding. These households are included in the housing assessment (looking forward), but the specific housing backlog is not directly captured. It also key to realise that these two housing issues are closely related to the housing segments that are serviced by Kāinga Ora.

However, if the Councils wish to make the backlog considerations more prominent in the HBA or the Bottom Lines, then finer analysis is suggested. Before these could be included in the bottom lines, the Councils will need to determine how to deal with the housing backlog i.e. it in the housing bottom lines or not. This would need to be informed by an investigation into the housing backlog, its scale, location and outlook (growth patterns) and an understanding of how the backlog could be alleviated through planning and non-planning approaches. Further, the timeframes and mechanisms to be used to address the housing backlogs should also be considered. There might be potential to address the backlogs to be addressed via non-planning approaches and by other agencies (e.g. Kainga Ora and social housing providers).

PART 3: CONCLUSIONS

7 Impact of Planning

Section summary: The NPS-UD requires an assessment of the impacts of planning, to identify how planning and the provision of infrastructure can be expected to affect the affordability of housing. House prices and affordability are impacted by a wide range of factors, sitting at the local, regional, national and global levels. A critical matter is that planning decisions are one localised influence among many influences on housing affordability. Isolating the effects of planning and infrastructure is complicated and will inevitably become conflated, as other influences including interest rates, availability of finance, investment from overseas, migration, labour supply, materials costs, central government regulations and so on will inevitably have significant influence.

A key indicator of the potential effect of planning on affordability is the level of price increase which is required for there to be sufficient feasible capacity to meet future housing needs. However, considering the wider range of factors impacting residential developments, household affordability and the ability of Councils (planning) to influence the timing and scale of development, it would be unrealistic to expect planning decisions and infrastructure provisions to be the sole determinants of efficiency and affordability.

One way to identify the effects of local activity (e.g. planning and infrastructure) is to compare the performance of the local area against other locations around NZ. A range of metrics is used to compare how the local market has performed to identify how planning is impacting the housing market. The following comments are made in terms of the impacts of planning"

- House price trend and construction: local prices are strongly impacted by trends in the national economy and macro level trends. Locally in Hastings and Napier, house price trends have generally been very strong over the past five years. Both Napier and Hastings have outperformed NZ benchmarks in terms of percentage movements. However, the movement was from a lower base. The strong growth in house prices, the response from the local construction sector and availability of capacity (to develop) suggests the local planning environment is supporting activity. However, the capacity that is currently available reflects historic planning activity. The capacity analysis suggests that over the long term, capacity constraints could emerge.
- Land values as a share of overall price is one way to show how planning impacts affordability. For example, for the standalone, redevelopment options in Hastings, the LV/Sales price ratio sits at 30%. Over the long term, the ratio drops to 22%. This downward shift reflects the diminishing role of land value in the overall housing price proposition. These patterns and infrastructure considerations suggest that the planning framework is supporting more intensive land use, and that land availability is not constraining development. However, infrastructure constraints are likely to hinder development over the long term and will need to be tracked. Looking forward, and reflecting the changing density provisions will see general lowering of the LV:Sales price ratios (especially in the Napier instance).
- Consent and construction activity provides insight into the competitive landscape. This includes competition between builders, and competition between existing dwellings and new dwellings (in terms of sales). The mix of dwellings and locations provide another measure of the level of competition in local market. The consent trends and movements show increasing construction activity, generally smaller dwellings, and a variety of typologies. If a market is constrained by land, then higher land values would translate into higher value developments (to generate a sufficiently high return on the overall development). Such a pattern is not evident in the consent data. This supports a position that the local markets are not constrained by insufficient local developable capacity. The data suggests that the construction sector is delivering more choice(s) to households.

The following Housing Bottom Lines are suggested, based on the preferred pathway (i.e. the medium-high growth futures as informed by StatsNZ's population projections).

	Hastings	Napier
Short term (2020-2023)	1,920	1,190
Medium term (2023-2030)	3,270	1,990
Long term (2030-2050)	7,640	4,010

The section concludes with suggested next steps.

This section integrates the earlier analysis to comment on how planning decisions and provision of infrastructure are likely to affect the competitiveness of the housing market, and how that may impact on housing affordability in the future. A key requirement is to distinguish between the effects of planning and infrastructure provision, and other influences on affordability. The assessment starts by considering the approach to assessing the effects of planning on housing market competitiveness, setting out how planning may affect the commercial market.

7.1 Planning's impacts

Reviewing the impacts of planning are a requirement under NPS-UD 3.23. Essentially the requirement is to identify how planning and the provision of infrastructure can be expected to affect the affordability of housing. Importantly, house prices and affordability are affected by a wide range of influences, local, regional and national. Councils' planning and infrastructure are predominantly location specific i.e. relate to the district. While some impacts arise from the district- and development specific attributes, the planning provisions and infrastructure considerations impact all properties[65]. However, prices are also influenced by macro-economic conditions, regional and national forces as well as global factors. This makes it important to understand the likely effects of planning and infrastructure in and of themselves, to ensure that plan provisions do not impact negatively on housing affordability, while at the same time recognising, they may be in the necessary but not sufficient conditions' category.

A two-step process was used to consider the local effects of planning:

1. The first step focused on the most direct effects of planning and infrastructure provision. These align with the feasibility assessment reported earlier. The approach set the immediate effects on the prices (for new dwellings) at the development costs. This includes land values, construction costs, housing typologies and sizes, and expected market values, and the effects of location on all of these. These costs and prices are impacted by planning through the level of activity and typology that is enabled. That is, the plan provisions (which are spatial), affects the nature and therefore the cost of new dwelling supply.

[65] Randerson Report, para 130, p353. The Randerson report identifies this as regulatory stringency. *"Data and analysis of land prices can be used to measure the extent to which local regulations impact the type of development that is occurring. This is sometimes referred to in urban economics as regulatory stringency."* While somewhat simplified, since it can be difficult to separate out the effects of regulatory stringency from other effects on supply and development, that is nonetheless useful because it helps place the focus on local (district level) conditions in the first instance.

This means that the earlier assessment identifies by how much new housing prices would need to change from the current values, over short, medium and long terms to support development. That helps to establish the scale of the required change in housing prices. This is a mechanism to show the effect of the required price shifts on housing affordability, which may be attributed to planning and infrastructure provision. This may be undertaken by considering the key effects at the local level – taking account of what can be feasible to develop in terms of dwelling options (size and typology), land values, construction, infrastructure and other costs – in terms of the minimum changes required in each. That sets the minimum price growth for feasible sufficiency, taking account of land supply, location and plan provisions. These are the main, local effects of planning and infrastructure.

2. Next the wider influences may affect housing affordability, are recognised. This can consider the factors that influence affordability, including to illustrate the potential for such wider influences to have effect on affordability irrespective of the plan and infrastructure effects.

These two steps deliver insights on the potential impact of planning. Further, these impacts have to be viewed in the context of wider NPS-UD. A key aspect of the NPS-UD is the requirement to support and contribute to "*competitive land and development markets*" – a requirement that is outlined at an objective and policy level, and referenced in various clauses:

> ***Objective 2:*** *Planning decisions improve housing affordability by supporting competitive land and development markets.*
>
> ***Policy 1:*** *Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum:*
>
> *d. support, and limit as much as possible adverse impacts on, the competitive operation of land and development markets;*

These aspects underpin the requirements set out in clause ***3.23 Analysis of housing market and impact of planning***, under which:

> *1. Every HBA must include analysis of how the relevant local authority's planning decisions and provision of infrastructure affects the affordability and competitiveness of the local housing market.*
>
> *3. The analysis must be informed by:*
>
> *a. market indicators, including:*
>
> *i. indicators of housing affordability, housing demand, and housing supply; and*
>
> *ii. information about household incomes, housing prices, and rents; and*
>
> *b. price efficiency indicators.*

There are two key elements in Objective 2:

1. First, the expectation is that planning decisions are able to improve housing affordability.
2. Second, the process for such improvement is supporting land and development markets to be competitive.

Importantly, the NPS-UD wording implies that the main or the only apparent route through which planning decisions may improve housing affordability is by supporting[66] markets to be competitive.

[66] The term *supporting* is not defined, although it presumably equates with 'contributing positively to', or 'having a positive effect on'.

7.1.1 Planning and Urban Economies

To assess the role and effects of planning in an urban economy, it is important to understand first how that economy functions, and then identify how planning – directly and indirectly – may affect that.

Urban economies are spatial by their nature and activities have a location. Locations, and their attributes are dynamic and change over time. Co-location of activity is an essential component of urban economies, yet most activities require their own space, and competition for space and location are critical aspects of how cities function. Cities are characterised by complex relationships and multiple externalities, and interactions between activities incur transaction costs. These interactions are between businesses, social agents, and other parts of the urban system. The urban-economy system extends beyond the urban area and includes with wider rural economy, as well as other regions.

This complexity with multiple influences occurring across space and through time highlight the importance of understanding the ways in which "planning" may have effect and which aspects of "planning" need to be assessed to comply with the NPS-UD provisions. Within those broad effects the requirement is to identify and examine how "planning" may have effects on housing affordability, and the competitiveness of local real estate markets.

There are two main routes through which "planning" affects affordability and competitiveness, both are through enabling and supporting land use.

1. Firstly, the nature, scale and location of land uses which make up an (urban) economy are key to the efficiency and sustainability of that economy, and planning has a key role in enabling where and when activity may occur. The spatial (and temporal) efficiency of that activity is a critical influence on productive efficiency and sustainability.
2. The second route is directly related, effectively that from "dis-enablement" from inefficiencies in the provision for economic activity, primarily from constraints on capacity, and/or poor location. Importantly, constraints on capacity typically place upward pressure on the price of land and other resources, with obvious negative effects on affordability (regulatory stringency).

In terms of infrastructure, planning also has a role in supporting land use and development patterns that minimise/avoid externalities. Of course, this also points towards a need to enable economies of scale and scope which are essential for efficient urban economies; and seeking efficient use of urban infrastructure (3 waters, transport, social infrastructure).

These are important aspects that substantially affect the efficiency and functioning of urban land markets. The operation of the commercial market plays a central role within the overall land development and housing sector. It is critical to recognise that it is situated within a wider urban market context where effects on urban efficiency go well beyond competitive commercial markets. The role of planning within the market can act to set some of the wider parameters, within which the commercial market can operate. The planning parameters can manage the externalities and efficiencies that are unable to be managed by the commercial market alone.

7.1.2 Defining a Competitive Urban Land Market

The NPS-UD does not present a definition of competitive land markets, nor is there definition in the supporting documents. However, there is scope for councils to define and develop appropriate methods and practices to achieve NPS-UD compliance. That approach is followed here. The Randerson review of the Resource Management Act offers a useful definition that is adopted for the assessment, as follows:

Defining a competitive urban land market

126. Competitive land markets should not be thought of as a laissez-faire regulatory approach to urban areas. In our view, a competitive urban land market is a well-planned and well-regulated built environment:

- *by 'competitive', we mean there is ample supply of alternative opportunities for development with the result that the price of land is not artificially inflated through scarcity*
- *by 'well-planned' we mean that infrastructure and land use provision is aligned, and timely provision of infrastructure avoids unnecessary costs*
- *by 'well-regulated' we mean that the positive and negative external effects of land and resource use are considered in decision-making, and the costs of regulation are minimised and commensurate with the benefits. Positive effects include economies of agglomeration*, and the benefits of proximity and access to urban amenities. Negative effects include pollution and effects from industry, effects of development on heritage and character features, traffic congestion, and infrastructure costs (where they are not covered by development or user charges).*

**This concept of agglomeration relates to the productivity gains of economies of scale, clustering and network effects.*

The Randerson review acknowledges some key challenges for the NPS-UD around competitive markets, noting (para 134) that *it "…addresses these issues to some extent. In our view, this work should be further developed and refined through national direction under our proposed Natural and Built Environments Act."* (p. 354).

The Randerson review provides a basis for considering the impacts of planning. It acknowledges how urban economies function, and how council planning may affect competition within the market. Crucially, it acknowledges that competition is an important aspect, but it does not seek to place reliance for urban planning on the operation of competitive markets alone. Therefore, it is important to adopt a wider view of a competitive development market, including both planning and non-planning factors. A critical matter is that planning decisions are one localised influence among many influences on housing affordability, many of which apply at regional, national or international level.

As mentioned, isolating the influence of local planning decisions on housing affordability is challenging. from a Council perspective, there are several ways through which district plan provisions directly and indirectly affect housing prices and affordability. These include:

a. effects on the value of land for housing, which are beyond those effects which arise from the potential use of land and its location,
b. the costs of providing housing which are affected by statutory requirements such as building standards, site coverage, building height maxima and bulk and location criteria,
c. the volume of housing supply, potentially affected by zoned and serviced land area influencing potential dwelling numbers, and
d. the location and timing of capacity, as affected especially by zoning and the provision of infrastructure.

7.1.3 Relevant metrics

The role of planning and its impacts on local development, are outlined above. Isolating the specific contribution of planning to local development trends and price movements is a substantial task and fraught with risks of misallocating effects. Further, many of the effects can only occur if other conditions hold. For

example, the impacts of planning and infrastructure will inevitably become conflated, as other influences including interest rates, availability of finance, investment from overseas, migration, labour supply, materials costs, central government regulations and so on will inevitably have significant influence.

A substantial part of the analysis required under s3.23 is captured and addressed under the sufficiency assessment. The sufficiency assessment includes the competitiveness margins. Therefore, it is to be expected that the key planning decisions – provision for sufficient land area serviced by infrastructure, and provision for a range of dwelling typologies and size – will have a largely neutral or net positive impact on housing affordability and competitiveness of the land market. The key indicator of the potential effect of planning on affordability is the level of price increase which is required for there to be sufficient feasible capacity to meet future housing needs. In conditions where there is sufficient land area provided for, and sufficient range of dwelling typology and size enabled in the Plan, then such future price increase would indicate the maximum or upper limit of the effect of planning by itself on future affordability.

However, considering the wider range of factors impacting residential developments, household affordability and the ability of Councils (planning) to influence the timing and scale of development, it would be unrealistic expect planning decisions and infrastructure provisions to be the sole determinants of efficiency and affordability.

Therefore, it makes sense to consider a wider package of metrics, covering the local market instead. This approach also provides and ability to consider local movements relative to regional and national trends. Table 7-1 provides commentary on the local impacts of planning using a range of different metrics and data sources. This includes the MHUD Dashboard as well as information presented elsewhere in the report.

Table 7-1: Commentary on the impacts of planning

Metric	Commentary
Housing price trend and construction	Prices are strongly impacted by national trends. How local prices move, relative to the overall situation, provides insight into the local conditions. The Hastings and Napier house price trends have generally been very strong, especially over the past five years. In percentage terms, both Napier and Hastings have outperformed the NZ situation. Importantly, the percentage change has been recorded of a low base (see section 3.2). The change highlights country-wide trends where amongst other things, households have looked to the regions for investment opportunities. This growth must be viewed against the construction activity. Drawing from the discussion in section 3.2.1, the consent activity also points to a lift in activity, especially in Hastings, and a typology shift in Napier. **The strong growth in house prices, the response from the local construction sector and availability of capacity (to develop) suggests the local planning environment is supporting activity. However, the capacity that is currently available reflects historic planning activity. The capacity analysis suggests that over the long term, capacity constraints could emerge.**
Land values as share of overall price	The land value as a share of total value is one way to show how planning impacts affordability. For example, for the standalone, redevelopment options in Hastings, the LV/Sales price ratio currently sits around the 30% mark. Over the long term, the ratio shifts down to 22%. This downward shift reflects the diminishing role of land value in the overall housing price proposition. However, this needs to be considered against the inability to develop sections (i.e., market to take them up) due to infrastructure constraints.

	In Hastings, these patterns and infrastructure considerations **suggest that the planning framework is supporting more intensive land use, and that land availability is not constraining development. However, infrastructure constraints are likely to hinder development over the long term. Looking forward, and reflecting the changing density provisions will see general lowering of the LV:Sales price ratios (especially in the Napier instance)**
Consent and construction activity	Consent and construction activity provides insight into several important metrics about the competitive landscape. This includes competition between builders, and competition between existing dwellings and new dwellings (in terms of sales). The mix of dwellings and locations provide another measure of the level of competition in local market. The number of people employed in residential building construction has shown an upward trend, and the average size of the businesses has also increase over the past 15 year or so. In Hasting, the average size increased from 2.4 in 2005, to 3.1 currently (2020). The Napier equivalents increased from 2.2 (2005) to 2.9 (2020). Residential building construction's employment is also capturing a larger share of overall employment. In Napier, employment increased from 1.2%, to 1.9% of total employment. In Hastings, the shift was from 1.1% to 1.7%. The same patterns are evident for the number of residential building companies. Overall, these figures suggest that the construction sector is supporting, and responding to, the demand. It also supports the assertion that planning is supporting development. Again, these points are based on historic data and does not reflect the very high movements in labour constraints (and labour inflation) identified across the economy. The 06 July 2021 NZIER Quarterly Survey of Business Opinion highlights the strong confidence in the building sector. However capacity pressures are becoming more acute. These pressures reflect COVID-related supply chain disruptions and labour shortages, with building construction firms' difficulty finding skilled labour at the highest for the survey's history (going back to 1976). The consent trends and movements have been outlined earlier in the report (section 3.3, Appendix 7 and Appendix 8). If a market is constrained by land, then higher land values would translate into higher value developments (to generate a sufficiently high return on the overall development). Such a pattern is not evident in the consent data. **This supports a position that the local markets are not constrained by insufficient local developable capacity. The consent data also reveals a move towards alternative typologies, thereby implying that the construction sector is delivering more choice(s) to households.** The RER analysis also shows the required shift in typology and development patterns (e.g. greenfield vs urban, attached vs detached). **The analysis shows that planning frameworks are likely to support competition between typologies and locations, especially over the short and medium terms. However, the limited capacity (combined with infrastructure constraints in Hastings) will limit competition and have a constraining impact. In the Napier, competition between typologies and locations will also be supported. In fact, competition between locations (between greenfields and existing urban) is expected to remain broadly constant because of the enabled capacity (that comes from moving towards higher density typologies over time), and the ongoing growth in the market.**

The following sub-sections contain information on aspects of our assessment that inform the above effects of planning within the market. The focus is on the housing market and affordability.

7.2 Future Housing Affordability

The analysis above provides important context for examining and understanding the likely future affordability of housing in the Hastings District and Napier City. Any assessment of future housing affordability must be undertaken with a degree of caution. Future projections need to be driven by estimates and projections of the key factors which will drive change in affordability. It is important to recognise that several factors will have effect in combination, and that each factor may have significant influence even on its own. This means that future estimates of housing affordability are necessarily sensitive to the individual assumptions and combinations which are applied. That is important because of the NPS-UD requirement to look into the long-term future. Simple projected rates of annual change will compound over time, so that later in the planning period the annual increments can become very large even from apparently modest annual changes. For this reason, the modelling includes some dampening to limit the effects of growth rates compounding into the medium and long term.

Housing affordability at any point in the future depends on housing values which are driven primarily by the combined effects of changes in land value, improvement (dwelling) value, and housing construction costs. These changes are likely to vary over the planning period. Affordability also depends on household income levels. These affect the ability of households to save for deposits and servicing loans. Furthermore, for households which are already owners, accumulated wealth generated through increases in dwelling equity over time influences affordability when they return to the market.

All things considered, the affordability assessment itself is reasonably straightforward. The dwellings (across value bands) can be calculated according to real change in land and improvement prices, housing construction costs, and allowance for the current and future dwelling estates to age and potentially depreciate (at least relative to land values). This provides estimates of the value of existing and future dwellings in real terms in each year, and accordingly, a distribution of values across the dwelling estate at each point in time. Section 3.4 presented information about these movements.

The ability of households to afford to purchase a dwelling is based on their income levels at each point in time according to projected real change in incomes. The calculation of affordability is described above, for non-owner households. Through this process, the projections therefore show the numbers of dwellings in each value band, and the numbers of households of each type and income band which are able to afford to purchase those dwellings. The future dollar amounts are adjusted for household incomes, and for dwelling values. These income and dwelling value bands are referenced back to 2020 values, so that future numbers of dwellings and households which can afford to purchase are able to be shown in the base year (2020) terms. The analysis is detailed in terms of the numbers of different dwelling value bands and different household types, but the calculation is fairly straightforward.

7.2.1 Assessing Affordability within Napier and Hastings

The assessment of affordability within the Hastings District and Napier City has been undertaken at the city and district, total urban level to reflect the data available and provide overall assessments of affordability for each area. The affordability assessment draws on earlier analysis as presented through Sections 3 and 4, and the discussions are not repeated. The dwelling value band profile of the potential future dwelling estate was

determined within the capacity assessment[67]. This has been compared to the household income distribution of urban households and the dwelling values affordable to each income band.

The affordability assessment shows the share of the (current and potential future) dwelling stock which is affordable to each household income band. The key outputs of this assessment for each of the growth scenarios are shown in the following sub-sections for Napier City and Hastings district across two different price growth scenarios. Each line on the graph represents the outputs from a different time period of the assessment. The value of each point on the line shows the share of dwellings of the current year (2020) or potential future estate (years 2023, 2030 and 2050) that are affordable to households within each income bracket.

Changes in the position of the lines show changes in housing affordability through time. A shift of the curves to the left suggests increasing housing affordability as it results in a higher share of the dwelling stock affordable at each household income band. Conversely, a shift of the curves to the right suggests decreasing housing affordability as it results in decreasing shares of the dwelling stock affordable at each household income band.

Two scenarios are run for each area:

- Scenario 1 shows a no price change situation. In this scenario, the financial values are all held constant. That is, no change in Land Value, Improvement Values, construction cost or household income. This scenario shows the expected shift in affordability based on change in household numbers.
- Scenario 2 shows the shift in affordability levels under different price change assumptions. The key assumptions are:
    - All growth rates for values prices and incomes are applied in real (inflation adjusted) terms to maintain comparability,
    - The estimates of future changes in value for housing are based initially on projections from the latest Treasury HYEFU[68] with the relativities between Napier/Hastings and NZ maintained.
    - Long term, residential land values have increased faster than dwelling total capital values, while improvement values have increased more slowly. The differential is maintained to the future. At the same time, allowance must be made for new sites and dwellings to be added to the dwelling estate, which generates some changes in the dwelling value mix[69]. The projected increases in housing and land prices reflect the short, medium, and long term movements.
    - Long term shifts in construction costs are reflected. The cost shift is assumed to be 3.0% per year. The Base Case estimates allow for that trend to continue.
    - Over time, household incomes in Hastings have not kept pace with the increases in housing prices. In real terms, household incomes have increased at 1.1%pa in the Hawke's Bay region since 2000. The Treasury HYEFU does not provide estimates of household incomes, however per capita GDP is projected to increase in real terms by around 1.6% pa into the medium term (the Treasury projections go out only to 2025). Taking per capita GDP as an approximation,

[67] The future potential dwelling estate value band profile contains further modelling of the capacity assessment outputs. The capacity assessment required a comparison of feasible capacity, as calculated at a point in time, with demand by dwelling value band. Further modelling within the housing affordability assessment allows capacity to be constructed through time at different points and corresponding value bands within the assessment period.

[68] https://www.treasury.govt.nz/publications/efu/half-year-economic-and-fiscal-update-2020

[69] These increases and adjustments are broadly consistent with population change and the shifts identified and used in the capacity assessment. However, a specific link between the capacity modelling and the modelling in this section was not created. This was to enable the modelling to work around the infrastructure capacity issue as identified.

and assuming the same differential in Hawkes's Bay Region income growth as in the past, this implies income growth of around 1.8% - 2.0% pa in real terms.

This analysis draws on the above settings and are aligned with the values used to estimate the commercially feasible capacity. Overall, the results indicate future affordability of housing as it is likely to be affected by Council planning decisions, including infrastructure. It is important to note that affordability is impacted by a range of factors that extend beyond Council's sphere of influence. Therefore, the analysis does not seek to assess future housing affordability which will be impacted by the full range of influences which are in addition to council planning and infrastructure.

The capacity assessment estimated the plan-enabled capacity, as well as the commercially feasible capacity under set of forward-looking conditions. Without price changes, the level of feasible capacity is greatly reduced. That increase in dwelling prices sets the upper limit of the effect of planning decisions on housing prices. The reason is that if the Plan provides for sufficient capacity and the market can feasibly provide sufficient dwellings within that price trend, then at most the Plan might be seen to generate that level of price inflation. This satisfies the approach in the Randerson Review requiring a plan to provide for "*…ample supply of alternative opportunities for development..*[where]*..the price of land is not artificially inflated through scarcity."* The actual effect of planning decisions on housing prices may be less than that.

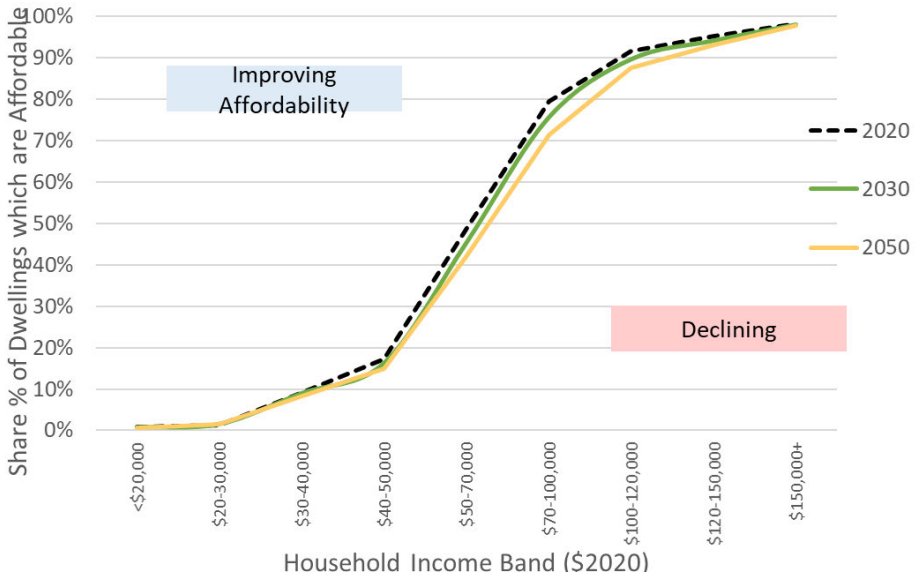
This approach is important in order to isolate as far as possible the effects of planning and infrastructure, and to not conflate the effects of exogenous factors with council planning. In this way, it shows what the likely effect on affordability of council providing for sufficient capacity for growth will be.

This is on the basis that providing for sufficient capacity is a necessary but not sufficient condition to contribute positively to housing affordability.

Hastings District Urban Area

The housing affordability outlook for Hastings District is shown in Figure 7-1 for the no change scenario (no change) and in Figure 7-2 for the base case growth scenario.

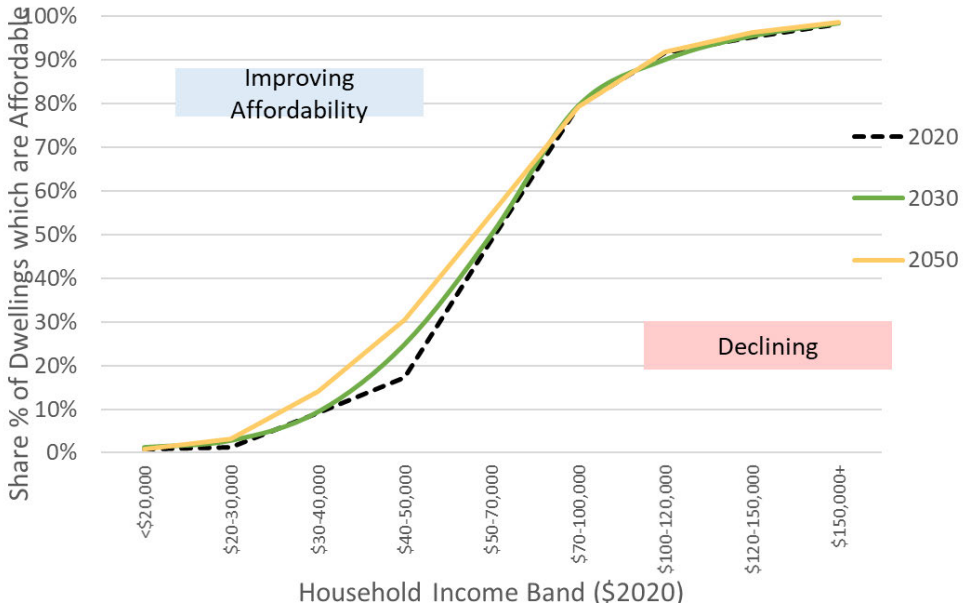
Figure 7-1: Hastings District Housing Affordability – Outlook: 2020-2050: Current Prices Scenario



The assessment shows that housing affordability generally holds relatively stable under a no price change scenario with affordability shifting marginally at the $70,000-$100,000/annum income bands. This shift is associated with demographic patterns where a portion of households in these income cohorts shift (increase) relative to housing values. This is because the current prices scenario holds prices constant with affordability being influenced by the part of the dwelling value curve where feasible capacity is taken up as part of the potential future estate (which largely remains fixed through time). In the long-term, affordability declines as additional capacity at higher value bands is added, largely within the greenfield areas, which become served by infrastructure through time.

Figure 7-2 shows the affordability outlook for Hastings under a base case scenario. The base case (Scenario 2) models the affordability situation with price changes. The price change scenario is a more realistic approach in terms of how urban areas develop, the development-decision making process and the underlying financial rationale that also drive urban investment choices.

Figure 7-2: Hastings Housing Affordability – Outlook 2020-2050: Base Case Growth Scenario

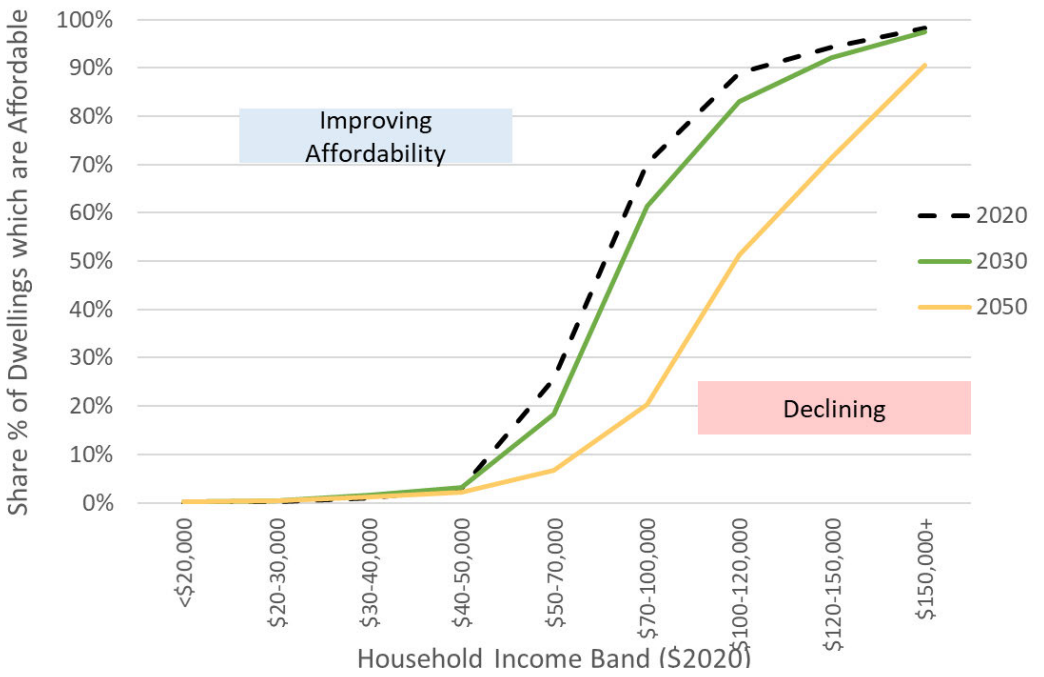


The shift in affordability across the different income bands is mixed, with some improvements in affordability for some of the lower income households (in the $40,000-$50,000 bands) and some gradual softening in housing affordability towards the higher income brackets. These trends need to be viewed against the shift in property typologies.

Napier City Urban Area

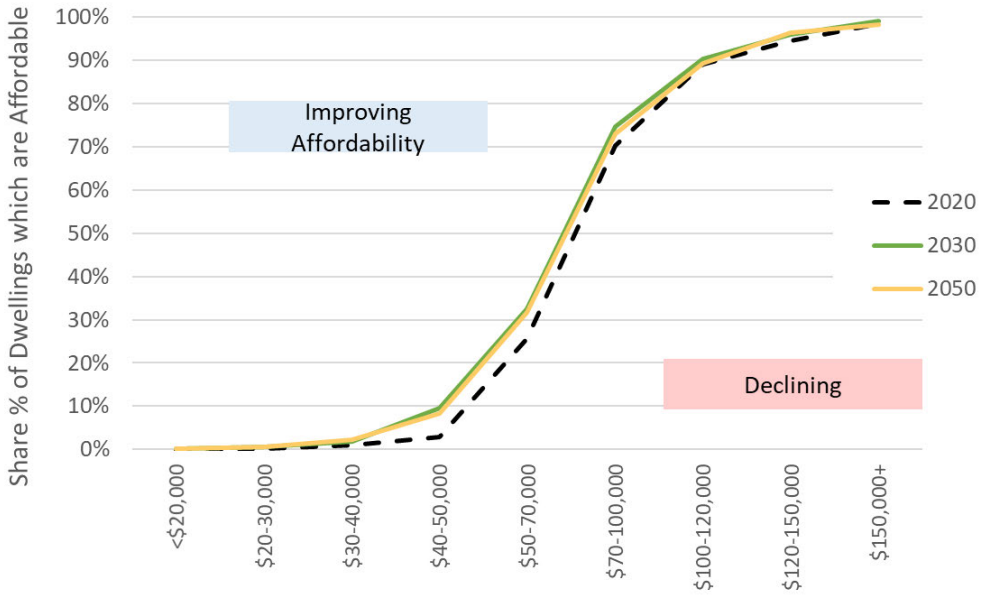
The housing affordability outlook for Napier City is shown in Figure 7-3 for the current prices scenario and in Figure 7-4 for the base case grow scenario (scenario 1). Counterintuitively, the assessment shows that housing affordability requires a degree of price change to unlock development, and in turn to support housing affordability. The figure below shows that under a no-change scenario (zero price changes) the overall affordability in the city is expected to decrease across all household income bands.

Figure 7-3: Urban Napier City Housing Affordability Outlook: 2020-2050 Current Prices Scenario



The underlying reason for this is that if property values remain constant, then infill and redevelopment activity is not unlocked and a move towards alternative typologies is facilitated. This move is supported by the planning frameworks but a shift in values is needed for the investment decisions to overcome the necessary hurdle rates. The shift in relative affordability under a price change scenario is shown below.

Figure 7-4: Napier City Housing Affordability Outlook 2020-2050: Base Case Price Growth Scenario



The analysis shows that over time, the general level of affordability will increase across the estate in general. This is based on the underlying assumptions, specifically those associated with the construction cost inflation, land value and building value trends as well as household income levels. These levels have been set at rates that equates to those needed to unlock feasible capacity. But they are still below some of the observed inflation and growth rates.

It is important to realise that the above analysis shows the link between price changes and the impact of planning. The above discussions (for Hastings and Napier) are not forecasts of future affordability levels. The discussions show how affordability levels would change, if the level of price changes that are needed to unlock development are achieved. And these are compared against baseline level of household income growth.

There are many drivers and factors that impact housing affordability. Many of these factors are external to the local regions, and beyond the control of Councils. For example, the macro-economic environment and business confidence levels, interest rates, migration settings and global trading conditions all impact on how local real estate markets perform.

Ensuring that there is sufficient available capacity in the local market is an important role and the analysis shows that local planning is not constraining the local market and development activity in the short and medium term. For Hastings, the analysis suggests that development constraints and uncertainty emerge over the long term. These constraints are mostly associated with uncertainty and unknowns in the infrastructure provision area but also some limits in the feasible capacity. The modelling shows that the feasible capacity marginally below the anticipated demand levels. However, once the competitiveness margin is added, then a material deficit is reported.

7.3 Housing Bottom Lines

Clause 3.6(1) of the NPS-UD requires that "the amount of development capacity that is sufficient to meet expected housing demand plus the appropriate competitiveness margin" in the short-medium and in the long term is clearly stated in each district of a tier 2 urban environment. The Housing Bottom Line is to be based on the amount of "*feasible, reasonably expected to be realised development capacity that must be enabled to meet demand, along with the competitiveness margin*". Once determined, the Housing Bottom Lines must be inserted into the District Plan and Regional Policy Statement.

The following are the calculated Housing Bottom Lines for the Hasting and Napier Council areas for the short, medium and long term. They are based on an estimated current (2020) estate, as informed by CoreLogic and the Councils' rating data. They relate to the Council's preferred growth pathway (i.e. the medium-high growth futures as informed by StatsNZ's population projections).

Sufficient zoned and infrastructure-served, feasible development capacity is required to meet demand to accommodate the following number of projected additional dwellings in each time period:

Table 7-2: Suggest housing bottom lines

	Hastings		Napier	
	Housing Bottom lines*	Total estate (Excl Margin)	**Housing Bottom lines***	Total estate (Excl Margin)
Short term (2020-2023)	1,920	32,920 (by 2023)	1,190	27,400 (by 2023)
Medium term (2023-2030)	3,270	35,650 (by 2030)	1,990	29,050 (by 2030)
Long term (2030-2050)	7,640	42,290 (by 2050)	4,010	32,550 (by 2050)
* Demand plus Competitiveness margin ** The demand shows the growth outlook, and does not include an allowance for current housing deficits or mismatches.				

It is important to note that if Council's growth projections are updated (which they frequently are), that these Housing Bottom Lines would also need to be updated[70]. In addition, it is important to note that the suggested bottom lines relate to the growth in dwelling demand, looking forward. This means that the projections do not explicitly reflect historic, and current social housing matters. For example, the growth profile considers the rate of change for demand across housing types (e.g. income bands, age cohorts and ethnicity). This means that historic shortfalls or mismatches are not 'resolved' in the assessment or reflected in the housing bottom lines. As mentioned earlier, if the Councils wish to include the housing backlog in the analysis (and bottom lines), then additional research and analysis is needed to understand the suitability (and appropriateness) of including the backlogs in the housing bottom lines. Further, the potential policy response, beyond planning, would be needed.

The housing bottom lines (demand) is based on the anticipated growth across the entire Napier and Hastings areas.

7.4 Next steps

This section sets out the next steps[71] for Napier City Council, Hastings District Council and Hawke's Bay Regional Council following the findings and planning implications identified in this housing assessment. Key areas for next steps include:

- Future Development Strategy,
- Intensification,
- Infrastructure,
- Regulatory,
- Development Contributions, and
- Business Capacity Assessment.

The next steps outlined briefly below are focussed on ensuring that the councils meet all the requirements under the NPS-UD.

[70] As would this HBA.

[71] Barkers and Associates prepared this section.

Future Development Strategy

As a priority task, a comprehensive Future Development Strategy (FDS) in accordance with the requirements of the NPS-UD should be prepared for the Hawke's Bay region. The FDS needs to build on and translate the key discussion, findings and outcomes from the Housing Assessment spatially. The FDS should look to clearly identify areas for greenfield development and intensification. It is also important through the FDS to begin an integrated process and conversation about planning and infrastructure in a strategic and coordinated manner for the region.

Intensification

Policy 5 of the NPS-UD requires Tier 2 urban environments to undertake plan changes to enable intensification commensurate with the level of accessibility to a range of services and the relative demand for housing and business use in that location. To support the required plan changes a detailed intensification strategy for the region should be prepared. This strategy should seek to identify locations for intensification and the levels of intensification that are appropriate, including high density, medium density and low density. This should support a centres-based approach and hierarchy of zones to enable intensification in the district plans. The strategy should include detailed accessibility analysis and build on the demand analysis and findings in the housing assessment.

It is recommended that a scenario approach is applied in the preparation of the intensification strategy to consider alternative outcomes in terms of the estimates for plan enabled and feasible capacity under different planning structure (and rule sets) and what this does to the intensification outcomes. For example, this could include considering the effect of changing:

- The density rules breaches (e.g. how these breaches are treated in terms of the assessment approach)
- Infill options involving relocating existing assets on site to comply with access widths, minimum lot sizes, shape etc.

Strategic consideration through this scenario testing should be given to the potential for slower realisation of increased intensification in the short to medium term, and the need for planned long term greenfield development areas to be brought forward. In addition, the intensification work should be informed by an assessment of how households make trade-offs and decisions around housing choices.

Infrastructure

The housing assessment has identified limitations and information gaps around infrastructure capacity. In order to support more detailed and strategic planning for urban growth and development, consideration should be given to preparing a detailed infrastructure strategy for the Hawke's Bay region. Particular focus of this strategy should be on infrastructure planning, funding and the provision of infrastructure for the long-term. A scenario based modelling approach, using a variety of growth projections, is suggested.

It would be advisable to engage specialist engineers to work alongside planners to prepare this strategy in a way that will ensure it is meaningful and able to be used effectively in the future to inform infrastructure funding and planning decisions. The infrastructure strategy can also assist by informing any potential regulatory change required, and future LTP processes.

Alongside the preparation of an infrastructure strategy, as a next step, the councils could look to explore and research other potential infrastructure funding and financing options, including any potential mechanisms to enable the efficient delivery of infrastructure to support growth.

Regulatory

The housing assessment findings and outcomes, alongside an FDS, should lead into a regulatory review and update to the Regional Policy Statement (RPS) and district plans. A detailed review of the operative planning provisions in the district plans should be undertaken, particularly before a full plan review in preparation of a combined plan under the RM reforms. This is to ensure the urban provisions are enabling growth, aligning with the requirements of the NPS-UD in terms of encouraging growth both up and out, and are not unnecessarily constraining development potential and opportunities. If it is found that development potential is being constrained or that the provisions within the district plan could be more enabling, further investigation should be undertaken to what the options are to review and revise the necessary provisions and chapters in the district plan.

In particular, a review should take place of the density provisions and other general provisions to ensure that they are providing for and encouraging a range of dwellings and typologies.

Development Contributions

Consider reviewing development contribution policies, which may occur following the completion of the FDS. The development contribution policies should be reviewed to ensure they are appropriate in light of the findings in the housing assessment and any subsequent intensification and infrastructure strategy.

Business Capacity Assessment

Clause 3.19 of the NPS-UD, sets the obligation for every tier 2 local authority to prepare and make publicly available a housing and business assessment (HBA). This report, satisfies the housing component of the HBA requirements under the NPS-UD. The business component of the HBA needs to be completed and estimate, for the short term, medium term, and long term, the demand from each business sector for additional business land in the Hawke's Bay region. This needs to be completed in time to inform the 2024 LTP.

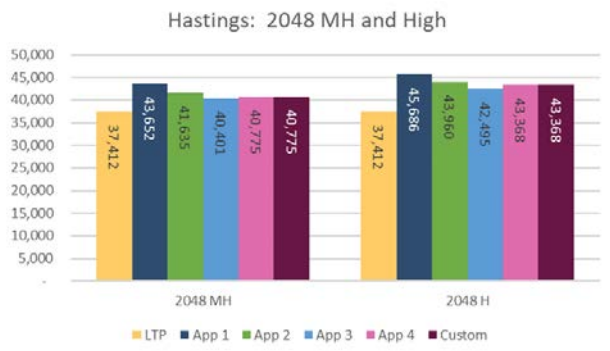
Appendices

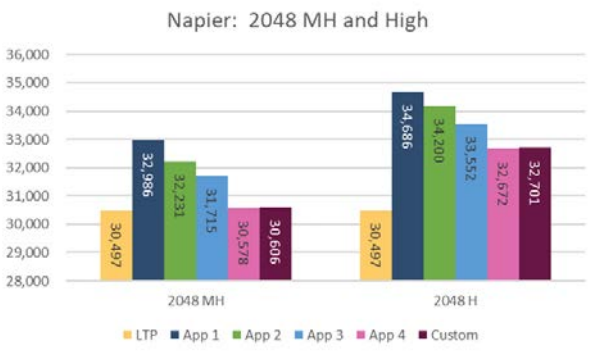
Appendix 1: Summary of approach to translate the population estimates into households

The updated population projections form the basis for the household outlook. Household estimates were derived using both the 2013-base and 2018-base population projections. We looked at the Medium and High sets for both projection series. We also considered the household projections (2013) since this act as a starting point for translating the recent population projections to households. The population-household ratios are estimated for Napier and Hastings separately. Some data points are extrapolated using a linear approach with a view to create a full(er) dataset. The main link between the population and households is the average household size. Four different approaches were used to reflect how the household projections (total) shift depending on the assumed trend in the average household size. These four approaches are described as follow:

- Approach 1 takes the household size estimated using the 2013 data and applies it to the 2018 population projections. The household sizes trend down (becomes smaller) over time.
- Approach 2 uses the 2018 population and household size (for 2018) and then reduces the size of households using the patterns revealed in the 2013 dataset. In effect, this approach assumes that the recent strong population growth has seen the households become bigger, but over the long term, historic demographic patterns will prevail, and household sizes will trend down.
- Approach 3 calculates the average household size for each assessment year (e.g. 2018, 2028, 2048 etc) between the 2013 and the 2018 data (households and population). This average household size (ratio) is then applied to the 2018-base projections to derive the household estimates. There are several conceptual challenges associated with combining the data in across datasets.
- Approach 4 applies the household sizes from the Draft LTP data, deriving the household estimates by dividing the 2018-base population by the household size.

The different approaches report the household estimates for the Medium-High and the High estimates. The household estimates are considerably higher than those put forward under the Draft LTP. For Hastings the average (across the 4 approaches) is 11% up on the Medium-High and 17% up on the High (but this is against the MH scenario of the Draft LTP). The lift is more muted in Napier - up 5% under the Medium High and 11% for the High (again the High is vs the LTP-MH). The lift is considerable and will have implications beyond the Housing Assessment. It also points to a need to revisit the projections once StatsNZ release the household projections. The following two figures show how the different estimates vary.





Appendix 2: Summary of High Future – Napier City

High Future	Current			Short Term			Medium Term			Long Term		
	2020			2023			2030			2050		
Dwelling Tenure	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total
Owned with mortgage	6,590	440	7,030	6,690	580	7,270	6,710	640	7,350	7,090	810	7,900
Owned without mortgage	6,810	860	7,670	6,800	1,120	7,920	7,540	1,410	8,950	8,930	2,080	11,010
Owned by Trust	3,430	280	3,710	3,460	380	3,840	3,710	450	4,170	4,180	620	4,810
Total Owned or in Trust	16,830	1,580	18,410	16,950	2,080	19,030	17,960	2,500	20,470	20,200	3,510	23,720
Not Owned	6,350	2,000	8370	6,310	2,530	8870	6,500	2,910	9440	7,100	3,790	10930
TOTAL	**23,200**	**3,580**	**26,800**	**23,300**	**4,600**	**27,900**	**24,500**	**5,400**	**29,900**	**27,300**	**7,300**	**34,700**
Household Type												
One Person Hhld	5,250	2,450	7,700	5,650	2,720	8,370	6,230	3,250	9,480	7,190	4,400	11,590
Couple Hhld	7,360	960	8,320	7,920	1,070	8,990	8,640	1,290	9,930	9,800	1,770	11,570
2 Parents 1-2chn	4,070	340	4,410	3,870	240	4,110	3,790	260	4,050	4,040	320	4,360
2 Parents 3+chn	1,080	40	1,120	1,090	50	1,140	1,050	50	1,100	1,120	50	1,170
1 Parent Family	3,280	440	3,720	3,350	470	3,820	3,370	500	3,870	3,640	620	4,260
Multi-Family Hhld	570	30	600	570	40	610	570	40	610	590	50	640
Non-Family Hhld	830	60	890	810	60	870	830	80	910	910	110	1,020
TOTAL	**22,400**	**4,300**	**26,800**	**23,300**	**4,700**	**27,900**	**24,500**	**5,500**	**30,000**	**27,300**	**7,300**	**34,600**
Household Income												
Under $30,000	4,540	1,950	6,490	4,800	2,170	6,970	5,310	2,630	7,940	6,260	3,660	9,920
$30-50,000	4,130	920	5,050	4,380	1,010	5,390	4,820	1,210	6,030	5,680	1,640	7,320
$50-70,000	3,420	560	3,980	3,560	620	4,180	3,760	710	4,470	4,160	910	5,070
$70-100,000	3,900	360	4,260	4,040	380	4,420	4,100	430	4,530	4,370	530	4,900
$100-120,000	2,180	170	2,350	2,320	180	2,500	2,330	200	2,530	2,450	230	2,680
$120-150,000	1,880	130	2,010	1,990	130	2,120	1,980	150	2,130	2,080	170	2,250
$150,000+	2,420	240	2,660	2,170	140	2,310	2,190	150	2,340	2,280	180	2,460
TOTAL	**22,500**	**4,300**	**26,800**	**23,300**	**4,600**	**27,900**	**24,500**	**5,500**	**30,000**	**27,300**	**7,300**	**34,600**
Ethnicity												
European	18,450	3,660	22,110	19,210	3,930	23,140	20,330	4,650	24,980	22,670	6,230	28,880
Maori	2,850	580	3,430	2,880	610	3,490	2,950	690	3,640	3,290	920	4,210
Pacific	380	10	390	390	20	410	400	20	420	450	30	490
Asian	750	70	820	770	80	850	800	90	890	890	120	1,030
TOTAL	**22,400**	**4,300**	**26,800**	**23,300**	**4,600**	**27,900**	**24,500**	**5,500**	**29,900**	**27,300**	**7,300**	**34,600**
Share %												
Owned with mortgage	25%	2%	26%	24%	2%	26%	22%	2%	25%	20%	2%	23%
Owned without mortgage	25%	3%	29%	24%	4%	28%	25%	5%	30%	26%	6%	32%
Owned by Trust	13%	1%	14%	12%	1%	14%	12%	2%	14%	12%	2%	14%
Total Owned or in Trust	63%	6%	69%	61%	7%	68%	60%	8%	68%	58%	10%	68%
Not Owned	24%	7%	31%	23%	9%	32%	22%	10%	32%	20%	11%	31%
TOTAL	87%	13%	100%	84%	16%	100%	82%	18%	100%	79%	21%	100%
One Person Hhld	20%	9%	29%	20%	10%	30%	21%	11%	32%	21%	13%	33%
Couple Hhld	27%	4%	31%	28%	4%	32%	29%	4%	33%	28%	5%	33%
2 Parents 1-2chn	15%	1%	16%	14%	1%	15%	13%	1%	14%	12%	1%	13%
2 Parents 3+chn	4%	0%	4%	4%	0%	4%	4%	0%	4%	3%	0%	3%
1 Parent Family	12%	2%	14%	12%	2%	14%	11%	2%	13%	11%	2%	12%
Multi-Family Hhld	2%	0%	2%	2%	0%	2%	2%	0%	2%	2%	0%	2%
Non-Family Hhld	3%	0%	3%	3%	0%	3%	3%	0%	3%	3%	0%	3%
TOTAL	84%	16%	100%	84%	17%	100%	82%	18%	100%	79%	21%	100%
Under $30,000	17%	7%	24%	17%	8%	25%	18%	9%	26%	18%	11%	29%
$30-50,000	15%	3%	19%	16%	4%	19%	16%	4%	20%	16%	5%	21%
$50-70,000	13%	2%	15%	13%	2%	15%	13%	2%	15%	12%	3%	15%
$70-100,000	15%	1%	16%	14%	1%	16%	14%	1%	15%	13%	2%	14%
$100-120,000	8%	1%	9%	8%	1%	9%	8%	1%	8%	7%	1%	8%
$120-150,000	7%	0%	8%	7%	0%	8%	7%	1%	7%	6%	0%	7%
$150,000+	9%	1%	10%	8%	1%	8%	7%	1%	8%	7%	1%	7%
TOTAL	84%	16%	100%	84%	16%	100%	82%	18%	100%	79%	21%	100%
European	69%	14%	83%	69%	14%	83%	68%	16%	84%	66%	18%	83%
Maori	11%	2%	13%	10%	2%	13%	10%	2%	12%	10%	3%	12%
Pacific	1%	0%	1%	1%	0%	1%	1%	0%	1%	1%	0%	1%
Asian	3%	0%	3%	3%	0%	3%	3%	0%	3%	3%	0%	3%
TOTAL	84%	16%	100%	84%	16%	100%	82%	18%	100%	79%	21%	100%

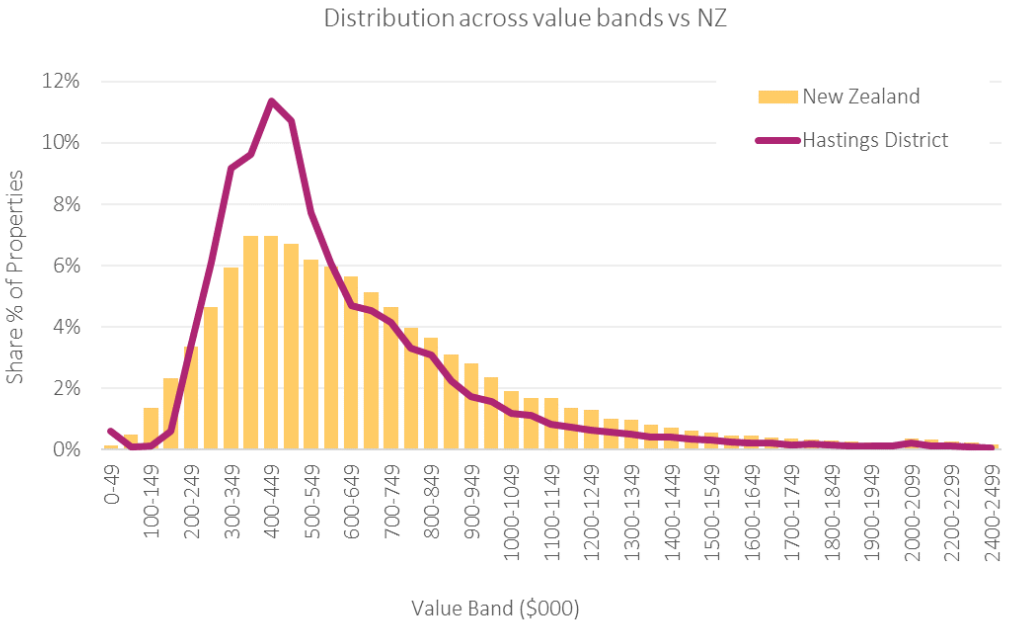
Change between periods	2020 - 2023			2023 - 2030			2020 - 2050		
	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total
Owned with mortgage	100	140	240	20	60	80	380	170	550
Owned without mortgage	-10	260	250	740	290	1030	1390	670	2060
Owned by Trust	30	100	130	250	70	330	470	170	640
Total Owned or in Trust	120	500	620	1010	420	1440	2240	1010	3250
Not Owned	-40	530	500	190	380	570	600	880	1490
TOTAL	100	1,020	1,100	1,200	800	2,000	2,800	1,900	4,800
One Person Hhld	400	270	670	580	530	1110	960	1150	2110
Couple Hhld	560	110	670	720	220	940	1160	480	1640
2 Parents 1-2chn	-200	-100	-300	-80	20	-60	250	60	310
2 Parents 3+chn	10	10	20	-40	0	-40	70	0	70
1 Parent Family	70	30	100	20	30	50	270	120	390
Multi-Family Hhld	0	10	10	0	0	0	20	10	30
Non-Family Hhld	-20	0	-20	20	20	40	80	30	110
TOTAL	900	400	1,100	1,200	800	2,100	2,800	1,800	4,600
Under $30,000	260	220	480	510	460	970	950	1030	1980
$30-50,000	250	90	340	440	200	640	860	430	1290
$50-70,000	140	60	200	200	90	290	400	200	600
$70-100,000	140	20	160	60	50	110	270	100	370
$100-120,000	140	10	150	10	20	30	120	30	150
$120-150,000	110	0	110	-10	20	10	100	20	120
$150,000+	-250	-100	-350	20	10	30	90	30	120
TOTAL	800	300	1,100	1,200	900	2,100	2,800	1,800	4,600
European	760	270	1030	1120	720	1840	2340	1580	3900
Maori	30	30	60	70	80	150	340	230	570
Pacific	10	10	20	10	0	10	50	10	70
Asian	20	10	30	30	10	40	90	30	140
TOTAL	900	300	1,100	1,200	900	2,000	2,800	1,800	4,700

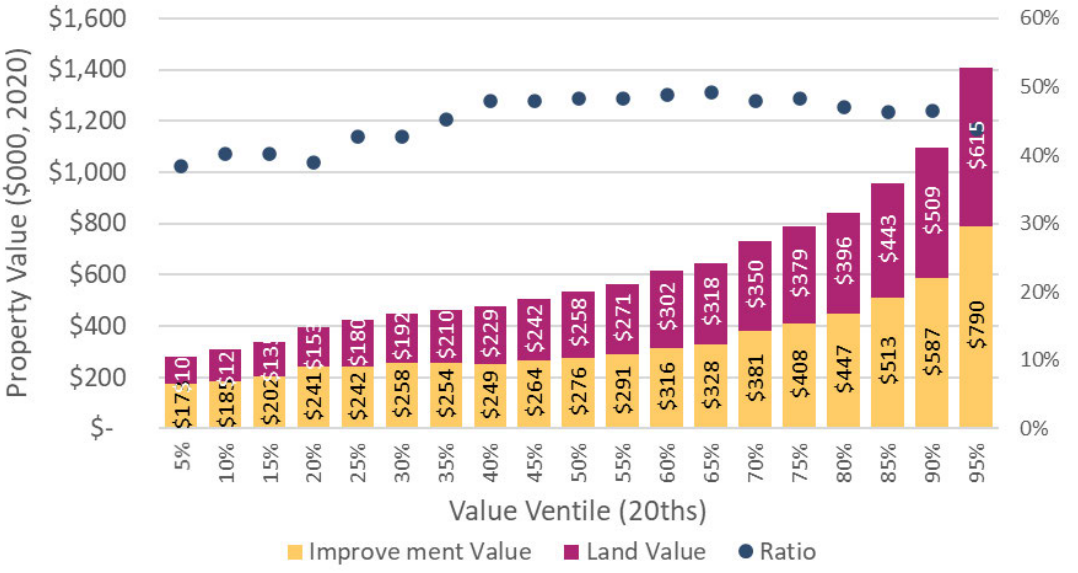
Appendix 3: Summary of High Future - Hastings District

High Future	Current			Short Term			Medium Term			Long Term		
	2020			2023			2030			2050		
Dwelling Tenure	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total
Owned with mortgage	7,840	420	8,260	8,140	550	8,690	8,330	650	8,980	9,410	880	10,290
Owned without mortgage	7,150	1,140	8,290	7,310	1,420	8,730	8,180	1,890	10,070	10,120	2,970	13,090
Owned by Trust	4,720	450	5,170	4,870	540	5,440	5,280	680	6,000	6,310	1,010	7,370
Total Owned or in Trust	19,710	2,010	21,720	20,320	2,510	22,860	21,790	3,220	25,050	25,840	4,860	30,750
Not Owned	7,860	2,120	9,980	8,000	2,490	10630	8,350	3,050	11560	9,580	4,230	13990
TOTAL	**27,600**	**4,130**	**31,700**	**28,300**	**5,000**	**33,500**	**30,100**	**6,300**	**36,600**	**35,400**	**9,100**	**44,700**
Household Type												
One Person Hhld	5,520	2,410	7,930	6,030	2,700	8,730	6,770	3,480	10,250	8,340	5,150	13,490
Couple Hhld	8,490	1,090	9,580	9,330	1,220	10,550	10,280	1,570	11,850	12,300	2,310	14,610
2 Parents 1-2chn	5,330	530	5,860	5,170	390	5,560	5,190	430	5,620	5,850	540	6,390
2 Parents 3+chn	1,860	80	1,940	1,940	80	2,020	1,940	80	2,020	2,170	110	2,280
1 Parent Family	4,000	580	4,580	4,150	600	4,750	4,270	680	4,950	4,930	890	5,820
Multi-Family Hhld	910	50	960	960	60	1,020	970	60	1,030	1,080	70	1,150
Non-Family Hhld	760	110	870	760	110	870	740	130	870	810	190	1,000
TOTAL	**26,900**	**4,900**	**31,700**	**28,300**	**5,200**	**33,500**	**30,200**	**6,400**	**36,600**	**35,500**	**9,300**	**44,700**
Household Income												
Under $30,000	4,820	2,000	6,820	5,190	2,230	7,420	5,820	2,900	8,720	7,300	4,390	11,690
$30-50,000	4,470	1,100	5,570	4,830	1,210	6,040	5,350	1,530	6,880	6,560	2,220	8,780
$50-70,000	4,200	630	4,830	4,490	700	5,190	4,780	840	5,620	5,570	1,160	6,730
$70-100,000	4,910	440	5,350	5,220	480	5,700	5,410	560	5,970	6,150	730	6,880
$100-120,000	2,700	200	2,900	2,920	220	3,140	2,990	260	3,250	3,340	340	3,680
$120-150,000	2,350	170	2,520	2,530	180	2,710	2,570	210	2,780	2,900	280	3,180
$150,000+	3,400	290	3,690	3,170	120	3,290	3,250	120	3,370	3,640	170	3,810
TOTAL	**26,900**	**4,800**	**31,700**	**28,400**	**5,100**	**33,500**	**30,200**	**6,400**	**36,600**	**35,500**	**9,300**	**44,800**
Ethnicity*												
European	20,490	3,840	24,330	21,900	4,100	26,000	23,500	5,180	28,680	27,620	7,530	35,110
Maori	4,490	750	5,240	4,550	790	5,340	4,730	950	5,680	5,560	1,380	6,950
Pacific	900	80	980	920	90	1,010	920	110	1,030	1,080	160	1,260
Asian	980	160	1,140	990	160	1,150	1,020	170	1,190	1,200	250	1,460
TOTAL	**26,900**	**4,800**	**31,700**	**28,400**	**5,100**	**33,500**	**30,200**	**6,400**	**36,600**	**35,500**	**9,300**	**44,800**
Share %												
Owned with mortgage	25%	1%	26%	24%	2%	26%	23%	2%	25%	21%	2%	23%
Owned without mortgage	23%	4%	26%	22%	4%	26%	22%	5%	28%	23%	7%	29%
Owned by Trust	15%	1%	16%	15%	2%	16%	14%	2%	16%	14%	2%	16%
Total Owned or in Trust	62%	6%	69%	61%	7%	68%	60%	9%	68%	58%	11%	69%
Not Owned	25%	7%	31%	24%	7%	32%	23%	8%	32%	21%	9%	31%
TOTAL	87%	13%	100%	84%	15%	100%	82%	17%	100%	79%	20%	100%
One Person Hhld	17%	8%	25%	18%	8%	26%	18%	10%	28%	19%	12%	30%
Couple Hhld	27%	3%	30%	28%	4%	31%	28%	4%	32%	28%	5%	33%
2 Parents 1-2chn	17%	2%	18%	15%	1%	17%	14%	1%	15%	13%	1%	14%
2 Parents 3+chn	6%	0%	6%	6%	0%	6%	5%	0%	6%	5%	0%	5%
1 Parent Family	13%	2%	14%	12%	2%	14%	12%	2%	14%	11%	2%	13%
Multi-Family Hhld	3%	0%	3%	3%	0%	3%	3%	0%	3%	2%	0%	3%
Non-Family Hhld	2%	0%	3%	2%	0%	3%	2%	0%	2%	2%	0%	2%
TOTAL	85%	15%	100%	84%	16%	100%	83%	17%	100%	79%	21%	100%
Under $30,000	15%	6%	22%	15%	7%	22%	16%	8%	24%	16%	10%	26%
$30-50,000	14%	3%	18%	14%	4%	18%	15%	4%	19%	15%	5%	20%
$50-70,000	13%	2%	15%	13%	2%	15%	13%	2%	15%	12%	3%	15%
$70-100,000	15%	1%	17%	16%	1%	17%	15%	2%	16%	14%	2%	15%
$100-120,000	9%	1%	9%	9%	1%	9%	8%	1%	9%	7%	1%	8%
$120-150,000	7%	1%	8%	8%	1%	8%	7%	1%	8%	6%	1%	7%
$150,000+	11%	1%	12%	9%	0%	10%	9%	0%	9%	8%	0%	9%
TOTAL	85%	15%	100%	85%	15%	100%	83%	17%	100%	79%	21%	100%
European	65%	12%	77%	65%	12%	78%	64%	14%	78%	62%	17%	78%
Maori	14%	2%	17%	14%	2%	16%	13%	3%	16%	12%	3%	16%
Pacific	3%	0%	3%	3%	0%	3%	3%	0%	3%	2%	0%	3%
Asian	3%	1%	4%	3%	0%	3%	3%	0%	3%	3%	1%	3%
TOTAL	85%	15%	100%	85%	15%	100%	83%	17%	100%	79%	21%	100%

Change between periods	2020 - 2023			2023 - 2030			2020 - 2050		
	Detached	Attached	Total	Detached	Attached	Total	Detached	Attached	Total
Owned with mortgage	300	130	430	190	100	290	1080	230	1310
Owned without mortgage	160	280	440	870	470	1340	1940	1080	3020
Owned by Trust	150	90	270	410	140	560	1030	330	1370
Total Owned or in Trust	610	500	1140	1470	710	2190	4050	1640	5700
Not Owned	140	370	650	350	560	930	1230	1180	2430
TOTAL	700	870	1,800	1,800	1,300	3,100	5,300	2,800	8,100
One Person Hhld	510	290	800	740	780	1520	1570	1670	3240
Couple Hhld	840	130	970	950	350	1300	2020	740	2760
2 Parents 1-2chn	-160	-140	-300	20	40	60	660	110	770
2 Parents 3+chn	80	0	80	0	0	0	230	30	260
1 Parent Family	150	20	170	120	80	200	660	210	870
Multi-Family Hhld	50	10	60	10	0	10	110	10	120
Non-Family Hhld	0	0	0	-20	20	0	70	60	130
TOTAL	1,400	300	1,800	1,900	1,200	3,100	5,300	2,900	8,100
Under $30,000	370	230	600	630	670	1300	1480	1490	2970
$30-50,000	360	110	470	520	320	840	1210	690	1900
$50-70,000	290	70	360	290	140	430	790	320	1110
$70-100,000	310	40	350	190	80	270	740	170	910
$100-120,000	220	20	240	70	40	110	350	80	430
$120-150,000	180	10	190	40	30	70	330	70	400
$150,000+	-230	-170	-400	80	0	80	390	50	440
TOTAL	1,500	300	1,800	1,800	1,300	3,100	5,300	2,900	8,200
European	1410	260	1670	1600	1080	2680	4120	2350	6430
Maori	60	40	100	180	160	340	830	430	1270
Pacific	20	10	30	0	20	20	160	50	230
Asian	10	0	10	30	10	40	180	80	270
TOTAL	1,500	300	1,800	1,800	1,300	3,100	5,300	2,900	8,200

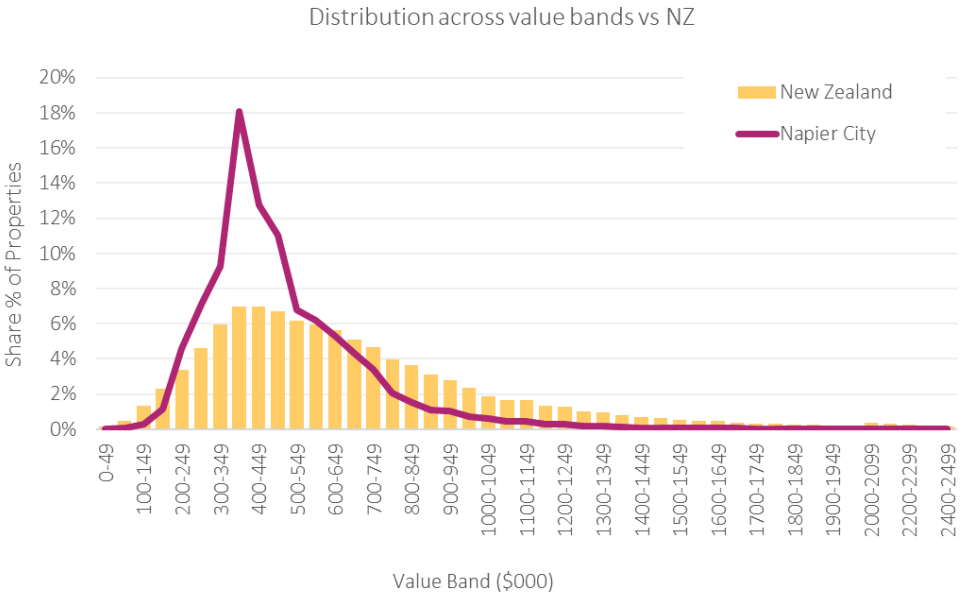
Appendix 4: Additional information about Hastings Residential Estate



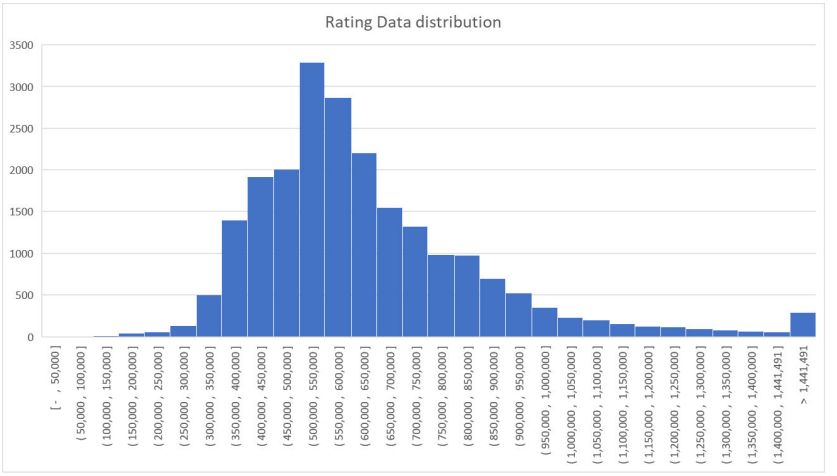


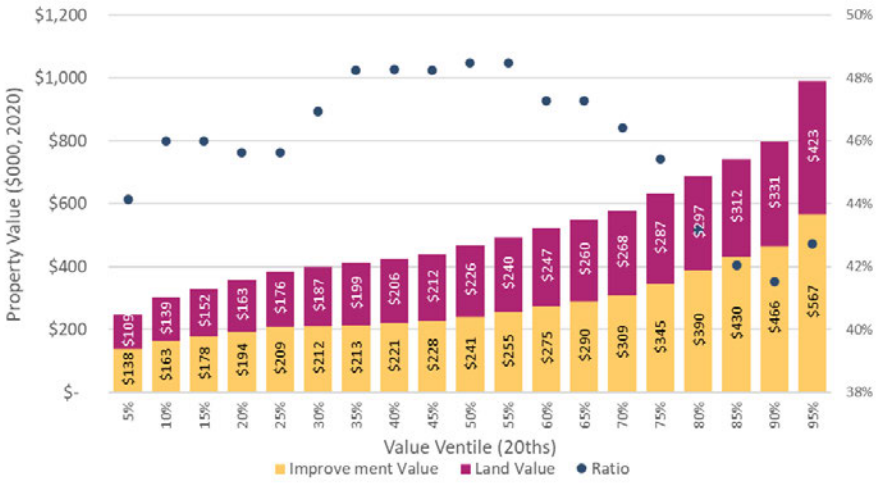
Appendix 5: Additional information about Napier Residential Estate

Distribution based on CoreLogic data



Distribution based on Council's rating data





Appendix 6: Additional information regarding Analysis of the Property Estate

Property information is utilised together with detail on new residential properties and their value structure - Land value (LV), Improvement value (IV) making up Capital value (CV) – to estimate the total values (CVs) of consented dwellings. The analysis draws on the observed relationships between consent values, which account for most of the improvement value of new residential properties, and final property capital values taking into account land values. It offers robust information on current additions to housing supply, particularly where new dwelling supply is positioned in the market by value.

To test this, M.E apply market diagnostic tests using local, regional, and national comparators. The purpose is to understand the extent to which current patterns reflect the breadth of the market – notably the mix of dwelling types and values – and whether there is evidence of market concentration on particular segments such as larger or higher value houses instead of a broader mix.

The output from this analysis is the indicated supply of new dwellings ("new" defined as being 2020 and later) into the short, medium, and long terms. Note that there are two routes for this:

a. The high-level approach bases projected numbers on current trends and mix, applied to the total indicated land supply including greenfield and infill estimates. This provides a first approximation only of new dwelling supply, because it does not include detailed analysis of feasibility of new dwellings on greenfield and infill land. The recent trends in consenting are taken as a general indicator of feasibility, recognising that in most council areas a very high proportion of consented builds progress to completions, indicating feasibility. That said, it is a high level approach which is useful for a starting indication but will usually be not sufficient for the full HBA.

b. The HBA-level approach. This also utilises the consent and property trends but includes more comprehensive assessment covering zoned and potentially zoned and serviced land area, plan-enabled capacity, and the market feasibility. The potential future supply of new dwellings is assessed consistent with the NPS-UD requirements.

Appendix 7: Hastings Consent Trends – Additional data

Time Period	Houses	Town houses Flats Units	Apartments	Retirement Units	Total Dwellings	Residential Buildings
Number of Consents						
2016	234	12	-	3	249	249
2020	399	58	-	116	573	573
2016-2020	*165*	*46*	-	*113*	*324*	*324*
Change 2016-2020 %	71%	383%	0%	3767%	130%	130%
Change 2016-2020 %pa	14.3%	48.3%	0.0%	149.4%	23.2%	23.2%
Total Value of Consents ($m)						
2016	$95	$3	$-	$1	$100	$100
2020	$191	$13	$-	$35	$239	$239
2016-2020	*$96*	*$10*	*$-*	*$34*	*$139*	*$139*
Change 2016-2020 %	100%	315%	0%	2737%	140%	140%
Change 2016-2020 %pa	19.0%	42.7%	0.0%	130.8%	24.4%	24.4%
Total Value (Real $m) 2020						
2016	$102	$3	$-	$1	$107	$107
2020	$191	$13	$-	$35	$239	$239
2016-2020	*$89*	*$10*	*$-*	*$33*	*$132*	*$132*
Change 2016-2020 %	87%	288%	0%	2552%	124%	124%
Change 2016-2020 %pa	17.0%	40.3%	0.0%	126.9%	22.3%	22.3%
Mean Value of Consents ($000)						
2016	$407	$262	$-	$408	$400	$400
2020	$478	$224	$-	$300	$417	$417
2016-2020	*$71*	*-$37*	*$-*	*-$109*	*$16*	*$16*
Change 2016-2020 %	18%	-14%	0%	-27%	4%	4%
Change 2016-2020 %pa	4.1%	-3.8%	0.0%	-7.4%	1.0%	1.0%
Mean Real Value of Consents ($000)						
2016	$435	$280	$-	$437	$428	$428
2020	$478	$224	$-	$300	$417	$417
2016-2020	*$43*	*-$55*	*$-*	*-$137*	*-$11*	*-$11*
Change 2016-2020 %	10%	-20%	0%	-31%	-3%	-3%
Change 2016-2020 %pa	2.4%	-5.4%	0.0%	-9.0%	-0.7%	-0.7%
Mean Floor Area of Consents (sqm)						
2016	216	164	-	202	213	213
2020	182	99	-	125	162	162
2016-2020	*-34*	*-66*	-	*-77*	*-51*	*-51*
Change 2016-2020 %	-16%	-40%	0%	-38%	-24%	-24%
Change 2016-2020 %pa	-4.1%	-12.0%	0.0%	-11.3%	-6.6%	-6.6%
Mean Real Value $2020 per Sqm						
2016	$2,018	$1,705	$-	$2,162	$2,008	$2,008
2020	$2,626	$2,279	$-	$2,402	$2,570	$2,570
2016-2020	*$608*	*$574*	*$-*	*$239*	*$561*	*$561*
Change 2016-2020 %	30%	34%	0%	11%	28%	28%
Change 2016-2020 %pa	6.8%	7.5%	0.0%	2.7%	6.4%	6.4%

Appendix 8: Napier Consent Trends – Additional data

Time Period	Houses	Town houses Flats Units	Apartments	Retirement Units	Total Dwellings	Residential Buildings
Number of Consents						
2016	166	12	4	-	182	182
2020	175	32	-	140	347	347
2016-2020	*9*	*20*	*-4*	*140*	*165*	*165*
Change 2016-2020 %	5%	167%	-100%	0%	91%	91%
Change 2016-2020 %pa	1.3%	27.8%	-100.0%	0.0%	17.5%	17.5%
Total Value of Consents ($m)						
2016	$62	$3	$1	$-	$65	$65
2020	$83	$8	$-	$26	$116	$116
2016-2020	*$21*	*$5*	*-$1*	*$26*	*$51*	*$51*
Change 2016-2020 %	33%	181%	-100%	0%	77%	77%
Change 2016-2020 %pa	7.5%	29.5%	-100.0%	0.0%	15.4%	15.4%
Total Value (Real $m) 2020						
2016	$66	$3	$1	$-	$70	$70
2020	$83	$8	$-	$26	$116	$116
2016-2020	*$16*	*$5*	*-$1*	*$26*	*$46*	*$46*
Change 2016-2020 %	25%	163%	-100%	0%	66%	66%
Change 2016-2020 %pa	5.7%	27.3%	-100.0%	0.0%	13.5%	13.5%
Mean Value of Consents ($000)						
2016	$373	$238	$163	$-	$360	$360
2020	$472	$250	$-	$183	$335	$335
2016-2020	*$99*	*$13*	*-$163*	*$183*	*-$25*	*-$25*
Change 2016-2020 %	26%	5%	-100%	0%	-7%	-7%
Change 2016-2020 %pa	6.1%	1.3%	-100.0%	0.0%	-1.8%	-1.8%
Mean Real Value of Consents ($000)						
2016	$399	$254	$174	$-	$385	$385
2020	$472	$250	$-	$183	$335	$335
2016-2020	*$73*	*-$4*	*-$174*	*$183*	*-$50*	*-$50*
Change 2016-2020 %	18%	-2%	-100%	0%	-13%	-13%
Change 2016-2020 %pa	4.3%	-0.4%	-100.0%	0.0%	-3.4%	-3.4%
Mean Floor Area of Consents (sqm)						
2016	204	166	88	-	199	199
2020	189	105	-	105	147	147
2016-2020	*-15*	*-61*	*-88*	*105*	*-52*	*-52*
Change 2016-2020 %	-7%	-37%	-100%	0%	-26%	-26%
Change 2016-2020 %pa	-1.9%	-10.8%	-100.0%	0.0%	-7.2%	-7.2%
Mean Real Value $2020 per Sqm						
2016	$1,958	$1,535	$1,970	$-	$1,935	$1,935
2020	$2,502	$2,391	$-	$1,734	$2,273	$2,273
2016-2020	*$544*	*$857*	*-$1,970*	*$1,734*	*$339*	*$339*
Change 2016-2020 %	28%	56%	-100%	0%	18%	18%
Change 2016-2020 %pa	6.3%	11.7%	-100.0%	0.0%	4.1%	4.1%

Appendix 9: Additional information about consent trends (Napier and Hastings)

Residential consents for Hastings and Napier City are presented in tables below. For Napier, on average over the last 10 years 160 detached dwellings and 53 attached dwellings were consented (each year). More recently, the total number of consented dwellings has increased (2019 and 2020), through an increase in the number of attached dwellings while the numbers for detached were relatively stable. This shows that the proportion of attached dwellings is increasing, representing almost 50% of all dwelling consents in 2020, compared to an average of 21% over the past decade.

Residential Consents five- and ten-year Averages (2010-20) - Napier City

	2010-2020		2015-2020		2019 & 2020	
	Detached	Attached	Detached	Attached	Detached	Attached
No. units consented (Av/y)	160	43	171	62	178	119
Ave building value ($)	360,000	195,000	410,000	205,000	470,000	205,000
$/sqm	1,819	1,719	2,082	1,806	2,446	1,877
Ave unit size (sqm)	196	104	197	115	193	111

The average unit size for detached dwellings (as consented) has remained relatively constant from 196m2 between 2010 and 2020 to 197m2 between 2015 and 2020. The short-term movements show a small decline with the 2019-2020 values returning an average size of 193 m2. The average unit size for attached dwelling has also remained relatively constant over these periods varying between 104m2 and 115m2. Other key observations are:

- The average building value for detached dwellings has been rising from $360,000 to $470,000. The average $/sqm value increased noticeably over the period, increasing from $1,761 to over $2,245.
- The average number of attached dwelling consented each year, was greater over the last five- year period, at 62 (2015-2020), compared to 2010-2020 (43 units).
- The relative share of attached dwellings being consented is higher than in the Hastings context. In Napier attached dwelling consents accounted for 21% (on average between 2010 and 2020) of the total, increasing to 26% (between 2015 and 2020). However, in the last two years this share risen to 40%.

Residential Consents five- and ten-year Averages (2010-20) - Hastings District

	2010-2020		2015-2020		2019 & 2020	
	Detached	Attached	Detached	Attached	Detached	Attached
No. units consented (Av/y)	267	53	307	68	384	135
Ave building value ($)	430,000	240,000	475,000	275,000	500,000	275,000
$/sqm	1,966	1,815	2,242	2,115	2,556	2,508
Ave unit size (sqm)	213	127	211	132	197	110

Other key observations are:

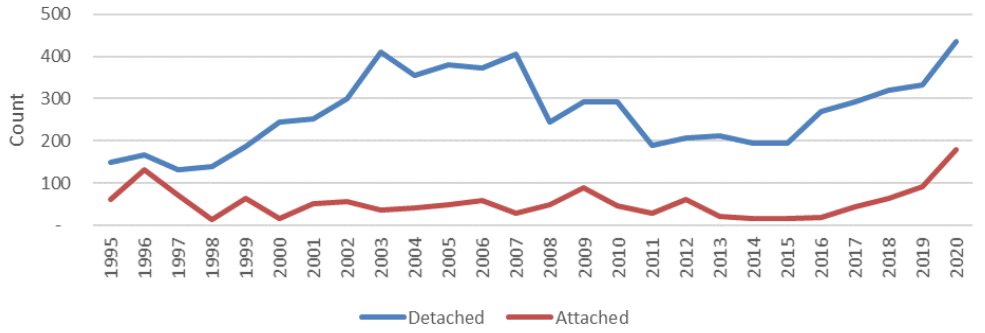
- The average building value for detached dwellings has been tracking up – from $430,000 to $500,000 (building only and excluding land). Construction costs have moved up from $1,966/sqm over the past decade, to $2,556/sqm over the past two years.
- For attached dwellings, the increase has been ever more pronounced, with the average $/sqm increasing to $2508/m. This increase also shows up in the overall (total) value of the dwellings – increasing from around $240,000 to $275,000.

- The consent data suggests that a shift in typology, towards attached dwellings, is taking place with attached dwellings taking a larger share of overall development. This share has moved from around 17% (average over 2010-2020) to 26% in the last two years.

Consent Numbers

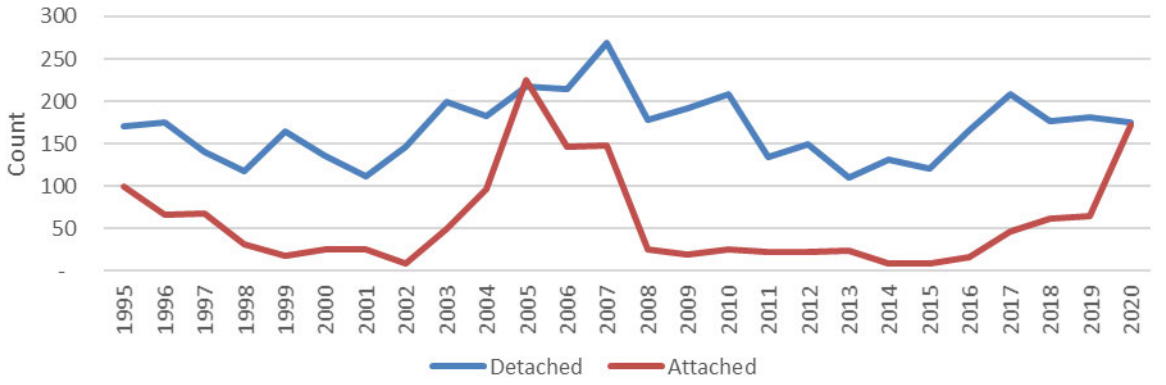
The figure shows the yearly number of unit consents since 1995 for the Hastings District. StatsNZ information forms the basis for looking at the different trends and shifts. The data was considered at a Statistical Unit 2 (SA2) level, and includes detached and attached Detached dwelling consents have been increasing over the last decade after a decline between 2007 and 2011, which was after a sustained growth period, and aligns with the GFC. The number of attached dwellings has remained relatively small, with some growth the last five years and in line with the current growth cycle. However, the recent lift in attached dwellings is notable.

Number of Units Consented (1995-2020) – Hastings District



The subsequent figure shows the annual number of unit consents for Napier City since 1995. The noticeable feature is the smaller differences between the numbers attached and detached units, particularly in 2005 and 2020. Both detached and attached dwellings have seen increases in unit consent numbers over the last 10 years after a period of decline after a previous peak around 2005 and 2007.

Number of Units Consented (1995-2020) – Napier City

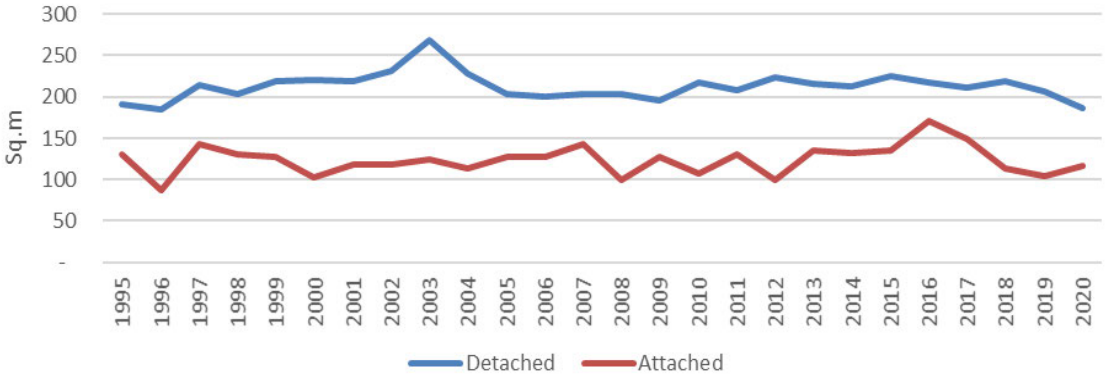


Floor Space

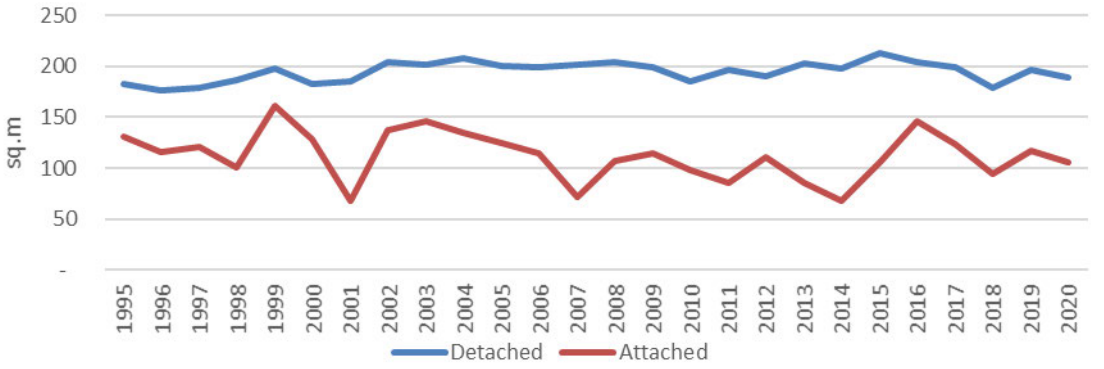
The annual trends for average floor space are shown below. The trends for floor space across both dwelling types shown no noticeable trends in both areas since 1995, however a downward trend is observed over the

past 5 years or so. There also are relatively small fluctuations in detached dwellings, while attached has greater variability. This is likely a result of the smaller amounts of consents for attached dwellings.

Average Floor Space (1995-2020) - Hastings District



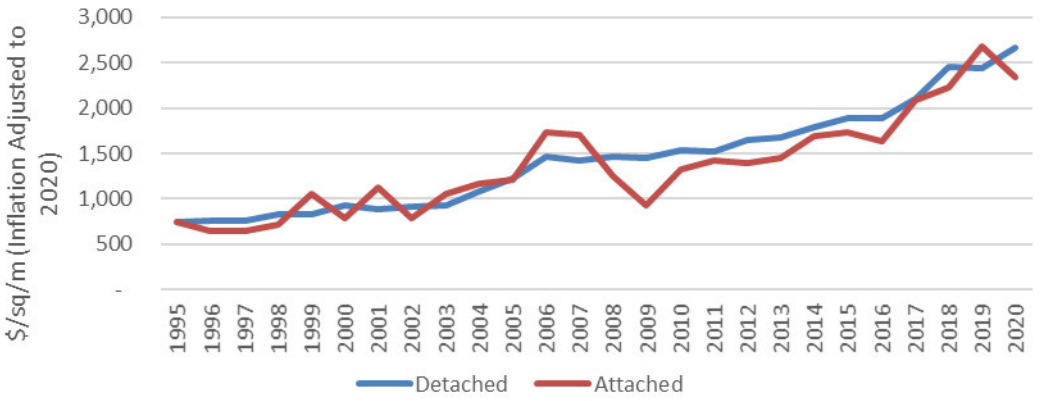
Average Floor Space (1995-2020) - Napier City



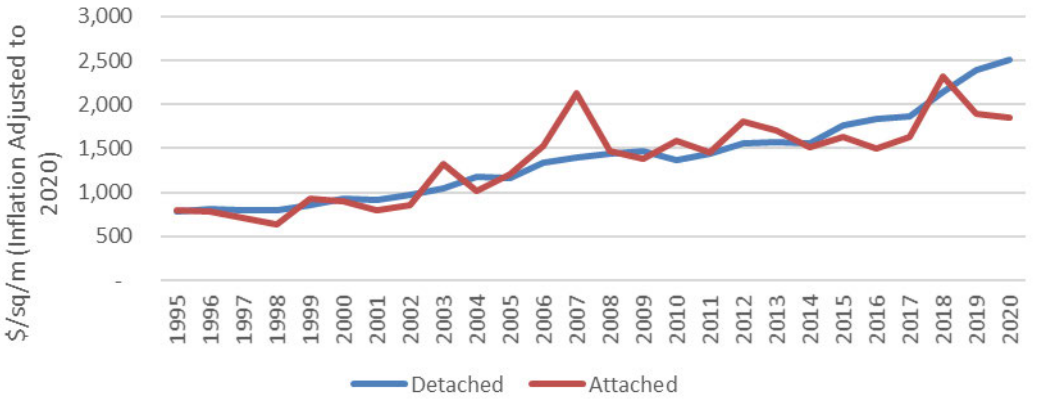
Unadjusted Annual Average $/sqm

The unadjusted annual average cost per square metre is similar levels trends for building costs per square metre since 1995, in that of an increase from around $750 per sqm in 1995 to around $2,500 in 2020. The building cost for detached dwellings has risen relatively consistently, whereas the cost per square metre of attached dwellings has shown more volatility. **The strong upward direction of the construction costs is a key features of the figures.**

Unadjusted Annual Average $/sqm (1995-2020) - Hastings District



Unadjusted Annual Average $/sqm (1995-2020) - Napier City



Appendix 10: Non-ownership rates by household type, income, and ethnicity – Napier (2020)

The tables offer a closer view of dwelling ownership and informs patterns of housing affordability. The table shows the dwelling ownership level (% of households who do not own a dwelling).

Household Type	Household income Band									
	<$20,000	$20-30,000	$30-40,000	$40-50,000	$50-70,000	$70-100,000	$100-120,000	$120-150,000	$150,000+	Total
Total All Ethnicities										
One Person Hhld	58%	37%	35%	35%	29%	25%	29%	31%	22%	40%
Couple Hhld	35%	23%	17%	17%	18%	19%	16%	16%	13%	17%
2 Parents 1-2chn	50%	43%	50%	50%	39%	27%	17%	17%	11%	23%
2 Parents 3+chn	44%	63%	64%	64%	46%	38%	20%	20%	10%	30%
1 Parent Family	78%	74%	58%	58%	49%	36%	35%	35%	23%	56%
Multi-Family Hhld	0%	29%	50%	50%	45%	35%	41%	41%	12%	29%
Non-Family Hhld	73%	57%	54%	54%	49%	43%	46%	45%	49%	49%
Total	**61%**	**41%**	**34%**	**34%**	**32%**	**26%**	**21%**	**20%**	**13%**	**32%**
European and Other										
One Person Hhld	52%	34%	31%	31%	26%	23%	26%	27%	21%	36%
Couple Hhld	30%	20%	16%	16%	15%	17%	15%	15%	11%	16%
2 Parents 1-2chn	50%	32%	46%	46%	34%	24%	15%	15%	9%	20%
2 Parents 3+chn	42%	43%	62%	62%	41%	29%	16%	16%	9%	23%
1 Parent Family	77%	67%	52%	52%	42%	29%	29%	29%	19%	50%
Multi-Family Hhld	0%	20%	50%	50%	35%	28%	33%	33%	10%	23%
Non-Family Hhld	59%	58%	48%	48%	45%	41%	42%	43%	47%	46%
Total	**55%**	**36%**	**29%**	**29%**	**27%**	**23%**	**18%**	**17%**	**11%**	**27%**
Share %	*8%*	*12%*	*8%*	*8%*	*12%*	*13%*	*8%*	*6%*	*8%*	*83%*
Maori										
One Person Hhld	88%	70%	63%	63%	55%	39%	67%	100%	29%	72%
Couple Hhld	50%	40%	45%	45%	38%	35%	18%	19%	24%	33%
2 Parents 1-2chn	60%	58%	61%	61%	62%	37%	27%	27%	20%	37%
2 Parents 3+chn	50%	67%	73%	73%	54%	61%	32%	32%	18%	48%
1 Parent Family	82%	88%	76%	76%	71%	52%	48%	50%	36%	73%
Multi-Family Hhld	0%	50%	50%	50%	60%	50%	59%	60%	18%	44%
Non-Family Hhld	70%	50%	76%	76%	61%	48%	58%	55%	67%	60%
Total	**85%**	**76%**	**67%**	**67%**	**60%**	**45%**	**34%**	**33%**	**24%**	**57%**
Share %	*2%*	*2%*	*1%*	*1%*	*2%*	*2%*	*1%*	*1%*	*1%*	*12%*
Pacific										
One Person Hhld	81%	88%	73%	73%	0%	0%	0%	0%	0%	86%
Couple Hhld	0%	0%	0%	0%	50%	47%	44%	50%	0%	50%
2 Parents 1-2chn	38%	100%	0%	0%	67%	54%	33%	33%	0%	43%
2 Parents 3+chn	100%	100%	75%	75%	71%	57%	43%	43%	0%	67%
1 Parent Family	79%	85%	80%	80%	70%	80%	0%	0%	0%	78%
Multi-Family Hhld	0%	0%	0%	0%	0%	0%	50%	50%	16%	33%
Non-Family Hhld	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Total	**83%**	**100%**	**67%**	**67%**	**57%**	**57%**	**25%**	**50%**	**0%**	**64%**
Share %	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*1%*
Asian										
One Person Hhld	66%	47%	67%	67%	44%	56%	0%	0%	0%	57%
Couple Hhld	56%	40%	28%	28%	39%	43%	28%	26%	38%	35%
2 Parents 1-2chn	60%	40%	53%	53%	46%	37%	22%	21%	30%	38%
2 Parents 3+chn	0%	100%	40%	40%	33%	38%	25%	25%	11%	40%
1 Parent Family	67%	0%	45%	45%	48%	56%	0%	0%	0%	57%
Multi-Family Hhld	0%	0%	0%	0%	0%	25%	20%	22%	17%	25%
Non-Family Hhld	67%	100%	60%	60%	0%	55%	0%	0%	50%	67%
Total	**63%**	**40%**	**50%**	**50%**	**46%**	**41%**	**17%**	**17%**	**33%**	**43%**
Share (%)	*0%*	*0%*	*0%*	*0%*	*0%*	*1%*	*0%*	*0%*	*0%*	*3%*
Total All Ethnicities	**1,700**	**1,490**	**840**	**840**	**1,230**	**1,130**	**490**	**400**	**340**	**8,460**

Source: ME Housing Demand Model 2021

Appendix 11: Relative incidence of home non-ownership – Napier City (2020)

The table shows the relative incidence of ownership for each segment according to household ethnicity, compared with the 2020 city/district average for each segment. A value of 1.0 indicates the ownership level for households of that ethnicity (for that type and income) is the same as the Napier City average. Values below 1.0 indicate relatively lower levels of ownership for that ethnicity, with highlighted red numbers being substantially lower. Values greater than 1.0 show relatively higher levels of ownership for that ethnicity, with blue highlighted numbers showing ownership is substantially higher than average (+15%). The un-shaded cells indicate an ownership rate which is broadly close to the district/city's average for that household type and income combination. The individual numbers are informative, however given the level of detail it is the overall pattern which is most useful.

Household Type	Household income Band									
	<$20,000	$20-30,000	$30-40,000	$40-50,000	$50-70,000	$70-100,000	$100-120,000	$120-150,000	$150,000+	Total
Total All Ethnicities										
One Person Hhld	0.62	0.93	0.95	0.95	1.04	1.10	1.05	1.01	1.15	0.88
Couple Hhld	0.96	1.14	1.21	1.21	1.21	1.18	1.24	1.24	1.28	1.21
2 Parents 1-2chn	0.73	0.85	0.73	0.73	0.90	1.07	1.22	1.22	1.31	1.13
2 Parents 3+chn	0.83	0.55	0.53	0.53	0.80	0.91	1.18	1.17	1.32	1.03
1 Parent Family	0.32	0.38	0.62	0.62	0.75	0.95	0.96	0.95	1.13	0.64
Multi-Family Hhld	-	1.05	0.73	0.73	0.81	0.95	0.86	0.86	1.29	1.04
Non-Family Hhld	0.40	0.63	0.68	0.68	0.76	0.84	0.80	0.80	0.75	0.74
Total	0.57	0.86	0.97	0.97	1.00	1.08	1.16	1.18	1.27	1.00
European and Other										
One Person Hhld	0.88	1.20	1.05	1.05	1.05	1.02	1.02	0.95	0.87	1.06
Couple Hhld	0.96	1.09	1.03	1.03	1.02	1.01	1.00	1.00	1.00	1.02
2 Parents 1-2chn	3.58	5.34	1.05	1.04	1.06	1.03	1.04	1.02	1.09	1.07
2 Parents 3+chn	1.17	1.14	2.18	2.15	1.39	1.12	1.07	1.06	1.04	1.13
1 Parent Family	1.08	1.54	1.04	1.04	1.11	1.04	1.04	1.03	0.92	1.11
Multi-Family Hhld	-	0.80	7.50	7.50	1.68	1.26	1.22	1.19	1.00	1.14
Non-Family Hhld	1.81	1.58	1.26	1.24	1.17	0.93	1.00	1.01	1.04	1.11
Total	0.96	1.24	1.08	1.08	1.08	1.03	1.03	1.02	1.03	1.07
Maori										
One Person Hhld	0.21	0.54	0.56	0.56	0.64	0.80	0.46	-	0.79	0.46
Couple Hhld	0.69	0.82	0.67	0.67	0.74	0.79	0.96	0.96	0.86	0.81
2 Parents 1-2chn	2.87	3.26	0.76	0.76	0.62	0.86	0.89	0.87	0.96	0.85
2 Parents 3+chn	1.00	0.67	1.55	1.53	1.07	0.61	0.86	0.85	0.94	0.77
1 Parent Family	0.85	0.54	0.53	0.53	0.55	0.71	0.76	0.73	0.73	0.60
Multi-Family Hhld	-	0.50	7.50	7.50	1.03	0.88	0.75	0.71	0.91	0.83
Non-Family Hhld	1.32	1.88	0.57	0.56	0.83	0.82	0.73	0.81	0.66	0.83
Total	0.34	0.51	0.54	0.54	0.61	0.74	0.82	0.82	0.89	0.64
Pacific										
One Person Hhld	0.35	0.22	0.41	0.42	-	-	-	-	-	0.23
Couple Hhld	-	-	-	-	0.60	0.64	0.65	0.59	-	0.60
2 Parents 1-2chn	4.48	-	-	-	0.54	0.63	0.81	0.80	-	0.77
2 Parents 3+chn	-	-	1.42	1.40	0.67	0.67	0.72	0.72	-	0.49
1 Parent Family	0.96	0.72	0.44	0.44	0.58	0.29	-	-	-	0.49
Multi-Family Hhld	-	-	-	-	-	-	0.91	0.88	0.93	0.99
Non-Family Hhld	-	-	-	-	-	-	-	-	-	-
Total	0.35	0.39	0.51	0.50	0.49	0.57	0.84	0.62	1.17	0.53
Asian										
One Person Hhld	0.62	0.97	0.51	0.51	0.79	0.59	-	-	1.11	0.70
Couple Hhld	0.61	0.82	0.88	0.88	0.74	0.69	0.85	0.87	0.70	0.77
2 Parents 1-2chn	2.87	4.70	0.91	0.91	0.87	0.86	0.96	0.95	0.84	0.83
2 Parents 3+chn	2.00	-	3.40	3.36	1.56	0.98	0.95	0.94	1.02	0.98
1 Parent Family	1.54	-	1.19	1.19	1.00	0.65	-	-	-	0.95
Multi-Family Hhld	-	-	-	-	-	1.32	1.46	1.37	0.92	1.11
Non-Family Hhld	1.47	-	0.97	0.95	-	0.71	-	-	0.99	0.69
Total	0.79	1.17	0.76	0.76	0.79	0.79	1.01	1.03	0.78	0.85
Total All Ethnicities	1,700	1,490	840	840	1,230	1,130	490	400	340	8,460

Appendix 12: Non-ownership rates by household type, income and ethnicity – Hastings District (2020)

Household Type	Household income Band									
	<$20,000	$20-30,000	$30-40,000	$40-50,000	$50-70,000	$70-100,000	$100-120,000	$120-150,000	$150,000+	Total
Total All Ethnicities										
One Person Hhld	50%	35%	37%	37%	31%	26%	28%	29%	31%	37%
Couple Hhld	34%	30%	19%	19%	20%	19%	16%	15%	9%	17%
2 Parents 1-2chn	42%	38%	46%	46%	44%	30%	19%	19%	11%	25%
2 Parents 3+chn	58%	58%	58%	58%	60%	38%	23%	23%	13%	33%
1 Parent Family	81%	75%	60%	60%	51%	40%	40%	41%	26%	59%
Multi-Family Hhld	33%	33%	54%	54%	49%	41%	33%	34%	18%	31%
Non-Family Hhld	58%	44%	55%	55%	54%	43%	46%	46%	36%	49%
Total	**59%**	**43%**	**38%**	**38%**	**36%**	**29%**	**22%**	**21%**	**13%**	**32%**
European and Other										
One Person Hhld	43%	31%	32%	32%	25%	20%	24%	27%	28%	32%
Couple Hhld	30%	24%	16%	16%	16%	15%	13%	13%	8%	14%
2 Parents 1-2chn	31%	28%	39%	39%	34%	22%	16%	15%	9%	19%
2 Parents 3+chn	30%	50%	46%	46%	46%	27%	15%	15%	10%	22%
1 Parent Family	74%	68%	52%	52%	39%	30%	29%	30%	15%	48%
Multi-Family Hhld	25%	25%	40%	40%	40%	34%	25%	26%	13%	24%
Non-Family Hhld	43%	33%	45%	45%	45%	34%	39%	38%	31%	40%
Total	**48%**	**35%**	**31%**	**31%**	**27%**	**21%**	**17%**	**16%**	**10%**	**25%**
Share %	*5%*	*9%*	*6%*	*6%*	*12%*	*14%*	*8%*	*7%*	*10%*	*78%*
Maori										
One Person Hhld	75%	66%	61%	61%	55%	58%	60%	50%	44%	65%
Couple Hhld	50%	59%	40%	40%	42%	44%	31%	31%	24%	39%
2 Parents 1-2chn	38%	59%	61%	61%	57%	47%	32%	32%	15%	40%
2 Parents 3+chn	60%	67%	74%	74%	76%	52%	35%	34%	19%	49%
1 Parent Family	90%	85%	76%	76%	69%	54%	56%	58%	54%	75%
Multi-Family Hhld	50%	50%	62%	62%	58%	52%	43%	42%	21%	41%
Non-Family Hhld	74%	64%	74%	74%	77%	56%	53%	55%	58%	64%
Total	**82%**	**73%**	**67%**	**67%**	**61%**	**51%**	**39%**	**37%**	**24%**	**58%**
Share %	*2%*	*2%*	*1%*	*1%*	*3%*	*3%*	*1%*	*1%*	*1%*	*16%*
Pacific										
One Person Hhld	73%	72%	53%	53%	73%	50%	0%	0%	100%	67%
Couple Hhld	25%	100%	50%	50%	53%	57%	36%	33%	45%	45%
2 Parents 1-2chn	77%	0%	67%	67%	69%	74%	35%	36%	53%	59%
2 Parents 3+chn	77%	67%	80%	80%	86%	78%	71%	71%	45%	72%
1 Parent Family	84%	83%	69%	69%	79%	83%	61%	67%	0%	76%
Multi-Family Hhld	0%	0%	60%	60%	63%	50%	50%	53%	47%	57%
Non-Family Hhld	0%	0%	90%	90%	100%	0%	0%	0%	0%	100%
Total	**69%**	**86%**	**67%**	**67%**	**75%**	**74%**	**44%**	**50%**	**43%**	**66%**
Share %	*0%*	*0%*	*0%*	*0%*	*1%*	*1%*	*0%*	*0%*	*0%*	*3%*
Asian										
One Person Hhld	58%	52%	63%	63%	69%	62%	0%	0%	100%	62%
Couple Hhld	63%	64%	44%	44%	56%	56%	56%	56%	62%	54%
2 Parents 1-2chn	0%	53%	52%	52%	66%	50%	25%	26%	27%	47%
2 Parents 3+chn	0%	33%	25%	25%	40%	20%	29%	29%	33%	33%
1 Parent Family	48%	62%	50%	50%	56%	50%	0%	0%	0%	57%
Multi-Family Hhld	0%	0%	0%	0%	0%	20%	20%	19%	27%	25%
Non-Family Hhld	0%	0%	0%	0%	71%	75%	79%	78%	0%	71%
Total	**50%**	**57%**	**57%**	**57%**	**62%**	**48%**	**36%**	**36%**	**36%**	**50%**
Share (%)	*0%*	*0%*	*0%*	*0%*	*1%*	*1%*	*0%*	*0%*	*0%*	*3%*
Total All Ethnicities	**1,500**	**1,490**	**1,010**	**1,010**	**1,760**	**1,640**	**690**	**560**	**500**	**10,150**

Appendix 13: Relative incidence of home ownership – Hastings (2020)

The table shows the relative incidence of ownership for each segment according to household ethnicity, compared with the 2020 district average for each segment. A value of 1.0 indicates the ownership level for households of that ethnicity (for that type and income) is the same as the Hastings District average. Values below 1.0 indicate relatively lower levels of ownership for that ethnicity, with highlighted red numbers being substantially lower. Values greater than 1.0 show relatively higher levels of ownership for that ethnicity, with blue highlighted numbers showing ownership is substantially higher than average (+15%). The un-shaded cells indicate an ownership rate which is broadly close to the district/city's average for that household type and income combination. The individual numbers are informative, however, given the level of detail it is the overall pattern which is most useful.

Household Type	Household income Band									
	<$20,000	$20-30,000	$30-40,000	$40-50,000	$50-70,000	$70-100,000	$100-120,000	$120-150,000	$150,000+	Total
Total All Ethnicities										
One Person Hhld	0.73	0.96	0.93	0.93	1.02	1.09	1.06	1.04	1.01	0.93
Couple Hhld	0.98	1.03	1.20	1.20	1.18	1.19	1.24	1.24	1.33	1.21
2 Parents 1-2chn	0.85	0.92	0.79	0.79	0.83	1.03	1.20	1.20	1.32	1.11
2 Parents 3+chn	0.62	0.61	0.62	0.62	0.59	0.91	1.13	1.13	1.28	0.99
1 Parent Family	0.27	0.36	0.58	0.58	0.73	0.88	0.89	0.87	1.09	0.61
Multi-Family Hhld	0.98	0.98	0.68	0.68	0.76	0.87	0.99	0.98	1.21	1.02
Non-Family Hhld	0.63	0.83	0.66	0.66	0.68	0.83	0.80	0.80	0.95	0.76
Total	0.60	0.84	0.91	0.91	0.94	1.05	1.15	1.17	1.29	1.00
European and Other										
One Person Hhld	0.97	1.18	1.06	1.05	1.05	1.04	0.98	0.94	0.95	1.09
Couple Hhld	1.03	1.13	1.03	1.03	1.03	1.04	1.04	1.03	1.00	1.04
2 Parents 1-2chn	1.60	1.70	1.14	1.14	1.19	1.08	1.05	1.02	1.10	1.10
2 Parents 3+chn	14.00	6.00	1.43	1.50	1.29	1.18	1.12	1.07	1.02	1.18
1 Parent Family	1.20	1.43	1.12	1.12	1.18	1.11	1.07	1.02	1.11	1.20
Multi-Family Hhld	0.75	0.75	2.25	2.60	1.90	1.22	1.20	1.13	1.06	1.17
Non-Family Hhld	0.86	1.06	1.10	1.09	1.17	1.42	1.09	1.15	1.04	1.17
Total	1.05	1.24	1.09	1.08	1.11	1.09	1.06	1.04	1.05	1.11
Maori										
One Person Hhld	0.42	0.58	0.61	0.60	0.64	0.54	0.52	0.64	0.73	0.55
Couple Hhld	0.74	0.61	0.74	0.74	0.72	0.68	0.82	0.81	0.83	0.74
2 Parents 1-2chn	1.42	0.96	0.72	0.72	0.78	0.74	0.85	0.82	1.03	0.81
2 Parents 3+chn	8.00	4.00	0.69	0.73	0.57	0.78	0.86	0.83	0.91	0.76
1 Parent Family	0.45	0.69	0.56	0.56	0.59	0.72	0.66	0.62	0.61	0.57
Multi-Family Hhld	0.50	0.50	1.44	1.67	1.34	0.88	0.91	0.89	0.95	0.91
Non-Family Hhld	0.39	0.57	0.53	0.52	0.49	0.94	0.85	0.85	0.63	0.71
Total	0.37	0.49	0.52	0.52	0.59	0.68	0.76	0.78	0.89	0.62
Pacific										
One Person Hhld	0.47	0.48	0.73	0.73	0.38	0.65	-	-	-	0.53
Couple Hhld	1.11	-	0.62	0.61	0.58	0.52	0.77	0.79	0.59	0.66
2 Parents 1-2chn	0.53	-	0.62	0.62	0.55	0.36	0.80	0.77	0.57	0.56
2 Parents 3+chn	4.62	4.00	0.53	0.56	0.33	0.35	0.39	0.37	0.62	0.42
1 Parent Family	0.71	0.78	0.72	0.72	0.40	0.28	0.59	0.49	-	0.55
Multi-Family Hhld	-	-	1.50	1.73	1.19	0.93	0.80	0.71	0.64	0.65
Non-Family Hhld	-	-	0.20	0.20	-	-	-	-	-	-
Total	0.51	0.48	0.52	0.52	0.38	0.36	0.71	0.62	0.58	0.50
Asian										
One Person Hhld	0.71	0.81	0.58	0.57	0.43	0.50	-	-	-	0.61
Couple Hhld	0.55	0.53	0.68	0.68	0.54	0.53	0.52	0.52	0.42	0.55
2 Parents 1-2chn	-	1.10	0.89	0.89	0.62	0.69	0.93	0.90	0.89	0.73
2 Parents 3+chn	-	8.00	1.98	2.09	1.42	1.30	0.94	0.91	0.76	1.08
1 Parent Family	2.37	1.75	1.16	1.16	0.85	0.79	-	-	-	1.15
Multi-Family Hhld	-	-	-	-	-	1.48	1.28	1.24	0.89	1.14
Non-Family Hhld	-	-	-	-	0.60	0.54	0.38	0.42	-	0.55
Total	1.01	0.82	0.67	0.67	0.58	0.69	0.76	0.79	0.74	0.75
Total All Ethnicities	1,500	1,490	1,010	1,010	1,760	1,640	690	560	500	10,150

Source: ME Housing Demand Model 2021

Appendix 14: Zone settings

Napier

Zones as per Parcel level data	Current			3 Years			10/30 Years		
	Min Site (m2)	Site Coverage	Height	Min Site (m2)	Site Coverage	Height	Min Site (m2)	Site Coverage	Height
Hardinge Road Residential	150	75%	2	150	75%	2	150	75%	2
Jervoistown	2,500	15%	2	2,500	15%	2	2,500	15%	2
Lifestyle Character	1,000	25%	2	1,000	25%	2	1,000	25%	2
Main Residential	350	50%	2	300	50%	2	250	50%	2
Marewa Art Deco Character	500	40%	1	500	40%	1	500	40%	1
Marewa State Housing Character	500	40%	1	500	40%	1	500	40%	1
Marine Parade Character	150	75%	3	150	75%	3	150	75%	3
Mixed Use	250	50%	3	250	50%	3	250	50%	3
Napier Hill Character	500	50%	2	500	50%	2	500	50%	2
Northern Residential	250	50%	2	250	50%	2	250	50%	2
Rural Residential	5,000	10%	2	5,000	10%	2	5,000	10%	2
Rural Settlement	800	30%	2	800	30%	2	800	30%	2
Rural Settlement	1,500	30%	2	1,500	30%	2	1,500	30%	2
Te Awa Bungalow Character	500	40%	1	500	40%	1	500	40%	1

Zones as per Parcel level data	Neighbourhoods/ Zone Overlays	Special rules/conditions	Min Site	Site Cover	Height (stor.)
Hastings General Residential			350	0.45	2
Hastings General Residential		Lyndhurst Urban Development Area (Appendix 11, Figure 1)	400	0.35	0
Hastings General Residential		Comprehensive Res Development (Appendix 27 Fig 1-3, Appendix 80, Figure 1)	250	0	3
Hastings General Residential	Beresford Street	Comprehensive Res Development (Appendix 27 Fig 1-3, Appendix 80, Figure 1)	250	0.45	3
Hastings Character Residential	Southampton Street		600	0.45	2
Hastings Character Residential	Fitzroy Avenue		350	0.45	2
Hastings Character Residential	Duke Street/Grays Road		800	0.35	2
Hastings Character Residential	York Street		800	0.35	2
Hastings Character Residential	Tomoana Road		800	0.35	2
Hastings Character Residential	Cornwall Road		800	0.35	2
Hastings Character Residential	Nelson Street North		700	0.35	2
Hastings Character Residential	Prospect Road / Knight Street		700	0.35	2
Hastings Character Residential	Market Street South		800	0.35	2
Hastings Character Residential	Charlotte & Duchess Crescent and Frederick Street		800	0.35	2
Hastings Character Residential	Willowpark Road		1000	0.35	2
Hastings Character Residential			500	0.45	2
Hastings City Living		Average minimum site area	250	0.45	2
Havelock North General Residential	Appendix 29 or Brookvale Structure Plan		350	0.45	2
Havelock North General Residential		Comp. Res Development	350	0	3
Havelock North Deferred General Res.	with public street frontage		2500	0.35	2
Havelock North Character Residential	without public street frontage	sites less than 700m2	700	0.4	0
Havelock North Character Residential	with public street frontage		700	0.45	0
Havelock North Character Residential	without public street frontage	sites greater than 700m2	700	0.35	0
Havelock North Character Residential	Toop Street		700	0.45	0
Havelock North Character Residential	Breadalbane Avenue		1000	0	0
Havelock North Character Residential	Iona Special Character - Bull Hill		700	0	0
Havelock North Character Residential	Iona Special Character - Bull Hill		400	0	0
Havelock North Character Residential	Iona Special Character - Bull Hill	sites front Middle Road or adjacent to Havelock North Rural Res zone	700	0	0
Havelock North Character Residential	Iona Special Character - Iona Terraces (Area A, B, C)	sites adjoin Havelock North Character Res zone	600	0	0
Havelock North Character Residential	Iona Special Character - Iona Terraces (Area D)		600	0	0
Havelock North Character Residential	Iona Plateau		1000	0	0
Flaxmere Residential Zone			600	0	0
Clive-Whakatu Residential Zone			500	0.45	2
Haumoana - Te Awanga Residential Zone			1000	0.45	2
Haumoana - Te Awanga Def Res			1000	0.35	2
Hastings Central Commercial			2500	0.35	2
Hastings Central Residential Commercial		Residential activities only permitted above ground level	0	0	4
Hastings Suburban Commercial			350	0	3
Havelock North Vil Cent – Mix/Use Zone		Res activities only permitted above grnd & at back of comm. activity	350	0	3
Havelock North Village Cent - Retail Zone			0	0	3
Flaxmere Village Cent – Com. Res. Zone			0	0	3
Rural Residential			500	0.45	3
Tuki Tuki Special Character			2500	0.2	2
Plains Settlement			2500	0.2	2
Havelock North Rural Residential			1000	0.35	2
Te Mata Special Character			2500	0.2	2
Coastal Settlement			2500	0.2	2
Waimarama Settlement		sites without public sewerage	1000	0.35	2

Appendix 15: Estimating capacity – Process overview

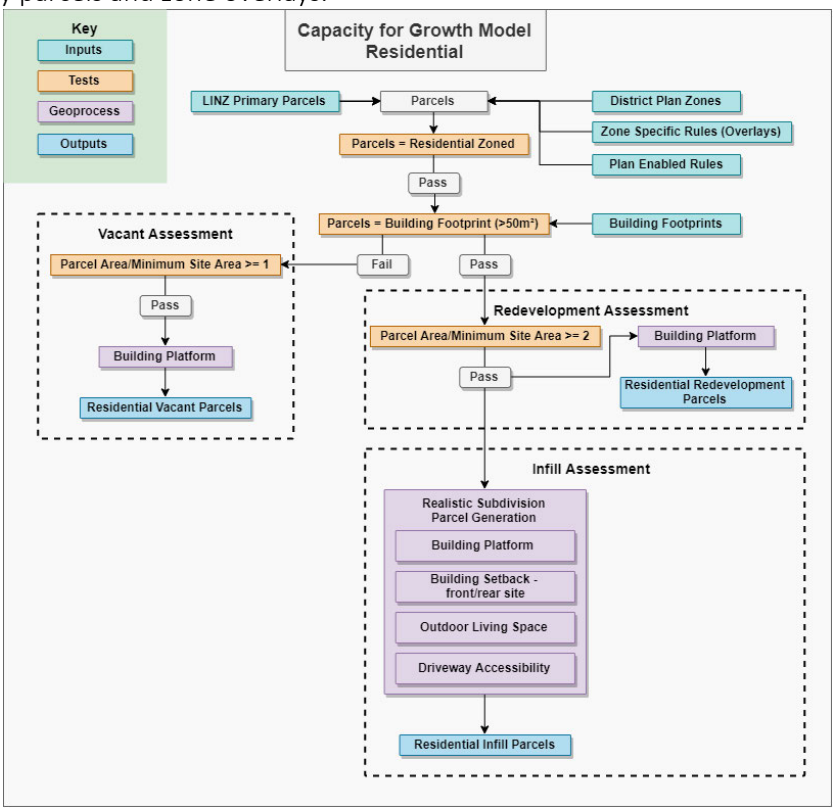
M.E developed a model to assesses the ability of residential zoned land to accommodate growth. The model combines several spatial datasets describing the urban environment, including the zoning rules as set out in District Plans. The provides an ability to estimate the potential development capacity on each residential-zoned parcel throughout Napier and Hastings.

Compiling and pre-processing of the spatial datasets is carried out in a Geographic Information System, while the modelling process itself is carried out within FME (spatial data integration software) via a series of spatial and logical queries structured as algorithms.

The process for calculating plan enabled capacity within the existing urban residential area is set out below. The process started with the planning rules, and translated these into a rule-structure, linked to individual properties. The rule reflected:

- Minimum building footprint area,
- Minimum site area,
- Minimum building platform/shape factor radius,
- Minimum building setbacks,
- Minimum vehicle access width,
- Minimum outdoor living space.

An overview of the complete FME model is provided in the accompanying figure. In the first stage, a spatial join is applied between the LINZ primary parcels and zone overlays.



The first test is to identify the parcels that reside within the relevant residential zone. Those parcels that are not located within a relevant zone are disqualified from further analysis.

With the relevant parcels identified, this second test identifies vacant parcels, which are then tagged, and passed onto the Vacant Assessment process. Identifying these parcels is a case of executing a disjoint spatial selection between the residential zoned parcels and the building footprints (the Council rating data is also used to inform this process). This selection returns all parcels that do not at all contain or intersect a building footprint. In the vacant assessment process, vacant parcels are tested to see whether they can hold >=1 minimum sized parcel. The logic here being that each vacant parcel must be able to contain at least a single minimum sized lot for it to be developable. Those returning a value equal to or greater than one, are subjected to a building platform test

to eliminate any unusually shaped parcels that may meet the minimum lot size test (e.g., a long and narrow site is excluded). The outputs are verified and controlled against the rating data.

For non-vacant parcels, redevelopment capacity is assessed using an approach that identifies the minimum lot size test threshold with the condition that if subdivision is possible, then both (all) sites need to remain above (or equal) to the minimum lot size. Again, a building platform test is used to eliminate any unusually shaped parcels.

When assessing parcels for infill capacity, bespoke geoprocessing methods are applied to each parcel. This process involves creating a bounding box to simplify the building shape before implementing the building setbacks, offsets and so forth. The GIS/FME platform then finds the infill area within the parcel through triangulation, circle creation, and bounding boxes generation. This process simplifies the potential infill areas to a realistic parcel shape. Finally, for each potential infill area, the following minimum tests are applied (subject to planning rules and settings):

- Minimum site area requirement,
- Capacity for the minimum building platform,
- Building setbacks,
- Capacity for an outdoor living space (where applicable), and
- Road access and driveway capacity.

Where all relevant requirements were met, the model tags the parcel as having potential subdivision capacity. Overall, the model produces three outputs for each parcel:

Capacity type	Definition of capacity type
Redevelopment	Net capacity for additional dwellings on residential zoned parcels presuming that all dwellings/structures are removed, and the sites are redeveloped to yield the maximum number of dwellings permitted (based on the modelled consent category from planning rules), less the existing number of dwellings, providing a net yield.
Infill	Net capacity for additional dwelling units on residential zoned parcels that are developed and have subdivision potential.
Vacant	Capacity for dwelling units on residential zoned parcels that are currently entirely vacant (no dwellings or buildings; >50m^2), either via further subdivision or immediate construction of a dwelling or dwellings. This is confirmed by using the rating information.

Appendix 16: Estimating Commercial Feasibility Process

The model operates at a property parcel level to estimate commercial feasibility of each of the three development typologies - standalone dwellings, duplex, apartments - on each parcel. It uses base parcel information, sourced from the rating data and a GIS process, to calculate the section and dwelling capacity. Floor area ratios were used to estimate the size of the dwelling that could be built. To prevent dwellings from becoming non-sensical on large sites, an upper limit of 300sqm was set.

First, the Model estimates the costs associated with each potential dwelling development option and size, as well as the expected sales price. The difference between building costs and sales prices are compared, relative to a set required profit margin. The required profit margin for commercial feasibility is currently set at 20% to be consistent with the feasibility tool provided as part of the NPS-UD technical guidance. In other words, a development option on a parcel is considered financially feasible if the sale price exceeds the costs by at least the set profit margin. If a higher margin is applied, then a smaller number of dwellings will be feasible, and vice versa.

The Model uses costs associated with the dwelling construction process, and includes:

- Value of land,
- Construction cost per square metre (adjusted for slopes),
- Site preparation cost (e.g., Demolition costs where applicable, site clearing, fencing, etc.)
- Professional fees (Planning, Design, Legal, Contingency, Surveying, Management),
- Development/Financial Contributions (city wide and local), and
- Other costs (e.g., utility connection fees, contingency, landscaping, etc.).

It is assumed that land is purchased once it is ready for development – i.e., it is serviced by infrastructure, has had bulk earthworks completed and has the final property parcel boundaries established.

Secondly, the model estimates the sales price of each of the three development options. The sale price is determined from a combination of dwelling size, type, and location.

While this data set was useful, it had several short comings and gaps, and other property information, both publicly available and M.E's proprietary data, was used to supplement the data. From this, corresponding matrices of sales values by dwelling size and location were produced. The variables within this database also enabled factors to be established to differentiate sales prices between older and new floorspace, where newly constructed floorspace has a higher sales value. Further analysis of current property sales listed on the market was then undertaken to verify and calibrate the matrices.

	Plan Enabled								Feasible							
$	Redevelopment - Standalone				Medium Density and Commercial Areas				Redevelopment - Standalone				Medium Density and Commercial Areas			
Upper Limit	Current	3year	10 year	30 year	Current	3year	10 year	30 year	Current	3year	10 year	30 year	Current	3year	10 year	30 year
400,001	-	-	-	-	5	-	-	-	-	-	-	-	5	-	-	-
500,000	5	-	10	-	335	250	10	-	35	30	-	-	320	250	10	-
600,000	495	265	5	-	890	685	260	-	175	100	30	-	835	650	260	-
700,000	1,790	790	265	-	1,115	890	665	-	750	435	105	-	495	625	645	-
800,000	1,790	2,020	610	5	125	545	860	60	445	745	355	10	35	175	645	60
900,000	545	1,320	1,725	-	110	105	570	195	260	280	810	20	100	30	205	195
1,000,000	570	420	1,600	160	-	105	100	340	455	300	440	60	-	90	30	340
1,100,000	830	580	355	170	-	-	110	445	635	455	225	140	-	-	105	445
1,200,000	1,350	785	340	410	-	-	-	740	1,000	640	270	285	-	-	-	650
1,300,000	60	1,205	615	1,000	-	-	-	530	30	885	500	885	-	-	-	360
1,400,000	45	50	680	1,085	-	-	-	60	35	25	590	850	-	-	-	30
1,500,000	65	45	1,185	970	-	-	-	15	50	40	885	875	-	-	-	10
1,600,000	135	60	50	585	-	-	-	85	40	50	25	495	-	-	-	25
1,700,000	-	25	35	210	-	-	-	110	-	10	30	160	-	-	-	105
1,800,000	-	105	55	245	-	-	-	-	-	30	45	235	-	-	-	-
1,900,000	-	-	30	350	-	-	-	-	-	-	25	330	-	-	-	-
2,000,000	-	-	130	355	-	-	-	-	-	-	45	325	-	-	-	-
2,100,000	-	-	-	525	-	-	-	-	-	-	-	495	-	-	-	-
2,200,000	-	-	-	220	-	-	-	-	-	-	-	200	-	-	-	-
2,300,000	-	-	-	1,085	-	-	-	-	-	-	-	890	-	-	-	-
2,400,000	-	-	-	40	-	-	-	-	-	-	-	30	-	-	-	-
2,500,000	-	-	-	260	-	-	-	-	-	-	-	195	-	-	-	-
	7,680	**7,670**	**7,690**	**7,675**	**2,580**	**2,580**	**2,575**	**2,580**	**3,907**	**4,015**	**4,386**	**6,474**	**1,794**	**1,830**	**1,902**	**2,223**

Appendix 18: Napier – Capacity by Value Band (including rural areas)

Plan Enabled Capacity – Detached dwellings

Property Value	Current			Short Term (2020-2023)			Medium Term (2020-2030)			Long Term (2020-2050)		
	Redev	Infill	Vacant	Redev	Infill	Vacant	Redev	Infill	Vacant	Redev	Infill	Vacant
<$400k	110	460	10	60	210	30	-	30	20	-	-	-
$401k-$500k	1,860	1,130	120	1,690	1,480	130	2,170	910	70	-	-	-
$501k-$600k	3,310	340	70	5,680	530	70	5,730	1,100	120	-	40	20
$601k-$700k	1,180	60	80	2,630	110	90	5,080	230	90	1,690	350	60
$701k-$800k	260	20	40	770	20	40	840	60	70	1,030	1,210	50
$801k-$900k	280	220	60	30	10	20	810	20	30	5,550	480	90
$901k-$1.0m	-	-	-	250	220	50	30	10	10	3,490	150	70
$1.0m-$1.1m	-	-	-	-	-	-	270	220	50	1,880	70	40
$1.1m-$1.2m	-	-	-	-	-	-	-	-	-	200	30	50
$1.2m-$1.3m	-	-	-	-	-	-	-	-	-	630	10	20
$1.3m-$1.4m	-	-	-	-	-	-	-	-	-	180	10	20
$1.4m-$1.5m	-	-	-	-	-	-	-	-	-	10	10	-
$1.5m-$1.6m	-	-	-	-	-	-	-	-	-	260	220	50
$1.6m-$1.7m	-	-	-	-	-	-	-	-	-	-	-	-
$1.7m-$1.8m	-	-	-	-	-	-	-	-	-	-	-	-
$1.8m-$1.9m	-	-	-	-	-	-	-	-	-	-	-	-
$1.9m-$2.0m	-	-	-	-	-	-	-	-	-	-	-	-
$2.0m-$2.1m	-	-	-	-	-	-	-	-	-	-	-	-
$2.1m-$2.2m	-	-	-	-	-	-	-	-	-	-	-	-
Total	**7,000**	**2,220**	**380**	**11,120**	**2,580**	**420**	**14,930**	**2,570**	**470**	**14,930**	**2,570**	**470**

Plan Enabled Capacity – Attached dwellings

Property Value	Current			Short Term (2020-2023)			Medium Term (2020-2030)			Long Term (2020-2050)		
	Redev	Infill	Vacant	Redev	Infill	Vacant	Redev	Infill	Vacant	Redev	Infill	Vacant
<$400k	-	-	-	-	-	-	-	-	-	-	-	-
$401k-$500k	10	-	-	-	-	-	-	-	-	-	-	-
$501k-$600k	2,100	520	210	10	-	-	10	-	-	-	-	-
$601k-$700k	2,420	160	90	4,250	660	290	210	120	-	-	-	-
$701k-$800k	-	-	-	280	20	10	4,030	540	290	-	-	-
$801k-$900k	-	-	-	-	-	-	280	20	10	10	-	-
$901k-$1.0m	-	-	-	-	-	-	-	-	-	-	-	-
$1.0m-$1.1m	-	-	-	-	-	-	-	-	-	2,010	500	210
$1.1m-$1.2m	-	-	-	-	-	-	-	-	-	2,230	160	80
$1.2m-$1.3m	-	-	-	-	-	-	-	-	-	280	20	10
$1.3m-$1.4m	-	-	-	-	-	-	-	-	-	-	-	-
$1.4m-$1.5m	-	-	-	-	-	-	-	-	-	-	-	-
$1.5m-$1.6m	-	-	-	-	-	-	-	-	-	-	-	-
$1.6m-$1.7m	-	-	-	-	-	-	-	-	-	-	-	-
$1.7m-$1.8m	-	-	-	-	-	-	-	-	-	-	-	-
$1.8m-$1.9m	-	-	-	-	-	-	-	-	-	-	-	-
$1.9m-$2.0m	-	-	-	-	-	-	-	-	-	-	-	-
$2.0m-$2.1m	-	-	-	-	-	-	-	-	-	-	-	-
$2.1m-$2.2m	-	-	-	-	-	-	-	-	-	-	-	-
Total	**4,530**	**680**	**290**	**4,530**	**680**	**290**	**4,530**	**680**	**290**	**4,530**	**680**	**290**

Feasible Capacity – Detached dwellings

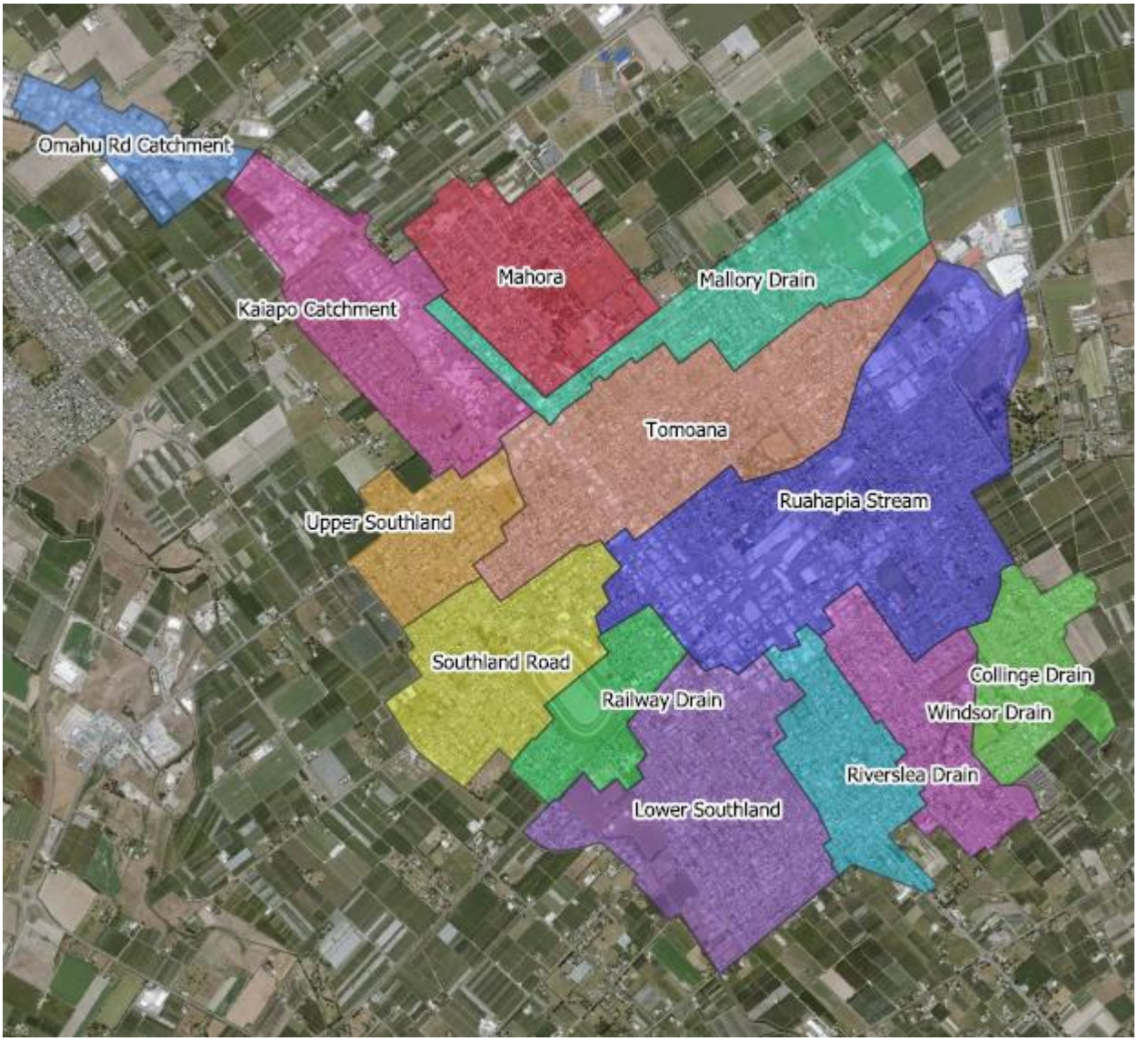
Property Value	Current			Short Term (2020-2023)			Medium Term (2020-2030)			Long Term (2020-2050)		
	Redev	Infill	Vacant	Redev	Infill	Vacant	Redev	Infill	Vacant	Redev	Infill	Vacant
<$400k	50	430	10	-	210	30	-	30	30	-	-	-
$401k-$500k	90	1,060	70	60	1,450	120	50	910	70	-	-	-
$501k-$600k	90	330	30	290	520	40	700	1,080	100	-	40	20
$601k-$700k	110	50	20	290	100	30	390	230	60	850	350	60
$701k-$800k	10	10	10	20	20	10	100	50	30	660	1,200	50
$801k-$900k	-	-	-	-	-	-	120	20	20	2,410	470	80
$901k-$1.0m	-	-	-	-	-	-	10	10	-	840	150	50
$1.0m-$1.1m	-	-	-	-	-	-	90	70	-	470	70	20
$1.1m-$1.2m	-	-	-	-	-	-	-	-	-	100	30	20
$1.2m-$1.3m	-	-	-	-	-	-	-	-	-	440	10	10
$1.3m-$1.4m	-	-	-	-	-	-	-	-	-	110	10	10
$1.4m-$1.5m	-	-	-	-	-	-	-	-	-	-	10	-
$1.5m-$1.6m	-	-	-	-	-	-	-	-	-	190	190	20
$1.6m-$1.7m	-	-	-	-	-	-	-	-	-	-	-	-
$1.7m-$1.8m	-	-	-	-	-	-	-	-	-	-	-	-
$1.8m-$1.9m	-	-	-	-	-	-	-	-	-	-	-	-
$1.9m-$2.0m	-	-	-	-	-	-	-	-	-	-	-	-
$2.0m-$2.1m	-	-	-	-	-	-	-	-	-	-	-	-
$2.1m-$2.2m	-	-	-	-	-	-	-	-	-	-	-	-
Total	**350**	**1,880**	**130**	**660**	**2,310**	**230**	**1,450**	**2,390**	**310**	**6,070**	**2,520**	**330**

Feasible Capacity – Attached dwellings

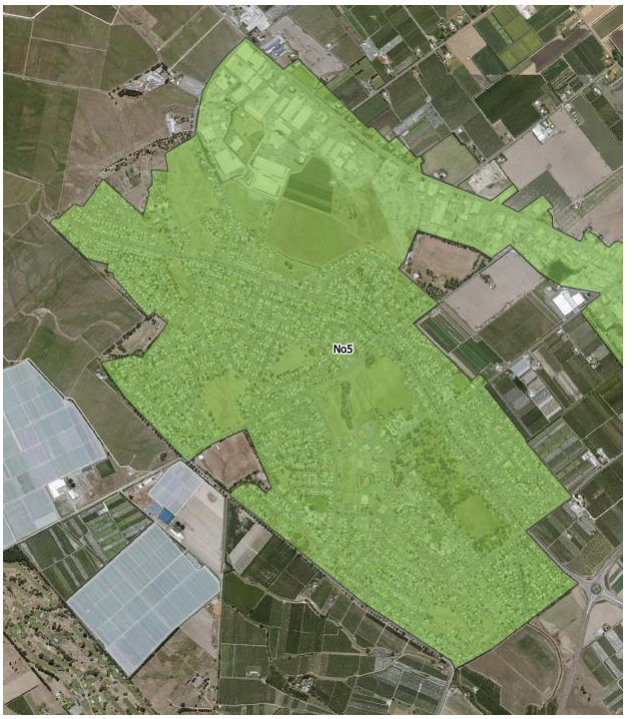
Property Value	Current			Short Term (2020-2023)			Medium Term (2020-2030)			Long Term (2020-2050)		
	Redev	Infill	Vacant	Redev	Infill	Vacant	Redev	Infill	Vacant	Redev	Infill	Vacant
<$400k	-	-	-	-	-	-	-	-	-	-	-	-
$401k-$500k	-	-	-	-	-	-	-	-	-	-	-	-
$501k-$600k	490	250	10	-	-	-	-	-	-	-	-	-
$601k-$700k	1,280	60	10	2,130	400	130	180	110	-	-	-	-
$701k-$800k	-	-	-	230	20	10	2,490	430	230	-	-	-
$801k-$900k	-	-	-	-	-	-	240	20	10	-	-	-
$901k-$1.0m	-	-	-	-	-	-	-	-	-	-	-	-
$1.0m-$1.1m	-	-	-	-	-	-	-	-	-	1,520	490	190
$1.1m-$1.2m	-	-	-	-	-	-	-	-	-	1,890	140	70
$1.2m-$1.3m	-	-	-	-	-	-	-	-	-	240	20	10
$1.3m-$1.4m	-	-	-	-	-	-	-	-	-	-	-	-
$1.4m-$1.5m	-	-	-	-	-	-	-	-	-	-	-	-
$1.5m-$1.6m	-	-	-	-	-	-	-	-	-	-	-	-
$1.6m-$1.7m	-	-	-	-	-	-	-	-	-	-	-	-
$1.7m-$1.8m	-	-	-	-	-	-	-	-	-	-	-	-
$1.8m-$1.9m	-	-	-	-	-	-	-	-	-	-	-	-
$1.9m-$2.0m	-	-	-	-	-	-	-	-	-	-	-	-
$2.0m-$2.1m	-	-	-	-	-	-	-	-	-	-	-	-
$2.1m-$2.2m	-	-	-	-	-	-	-	-	-	-	-	-
Total	**1,770**	**310**	**20**	**2,360**	**420**	**130**	**2,910**	**560**	**230**	**3,640**	**660**	**260**

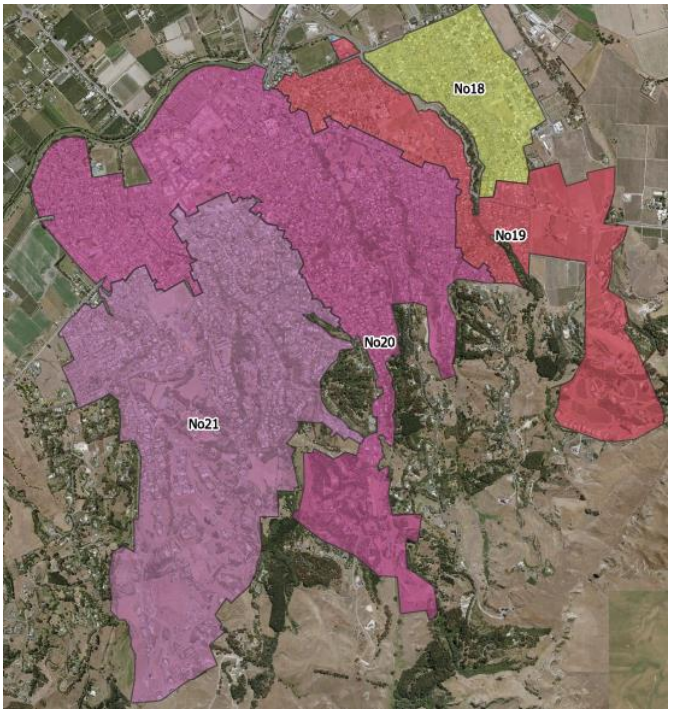
Appendix 19: Catchment maps (Hastings)

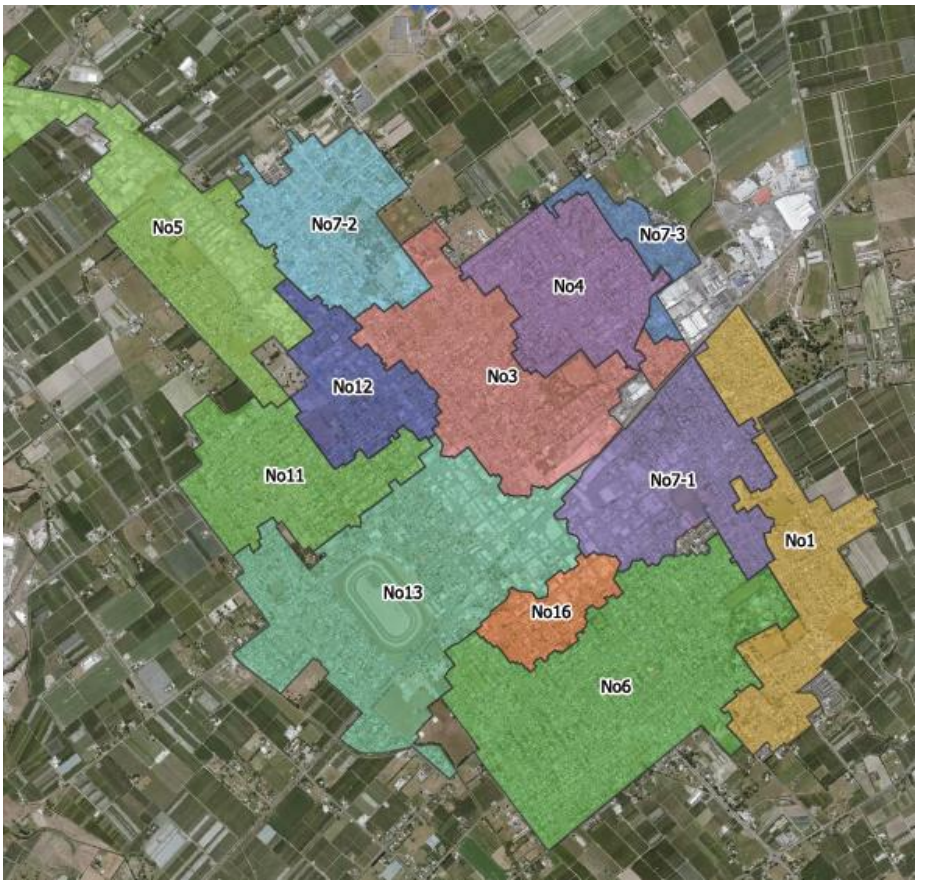
Stormwater Catchments



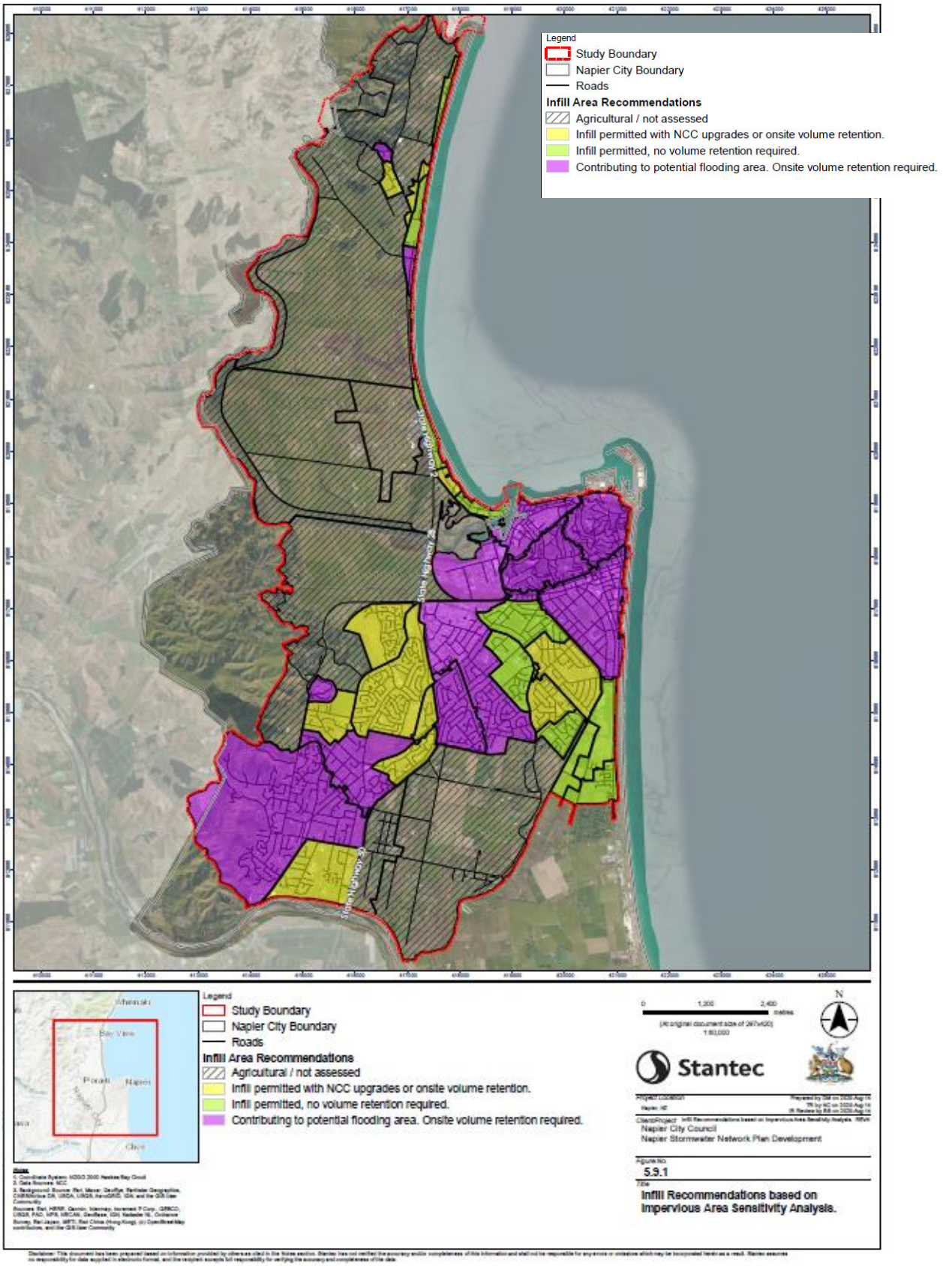
Wastewater catchments

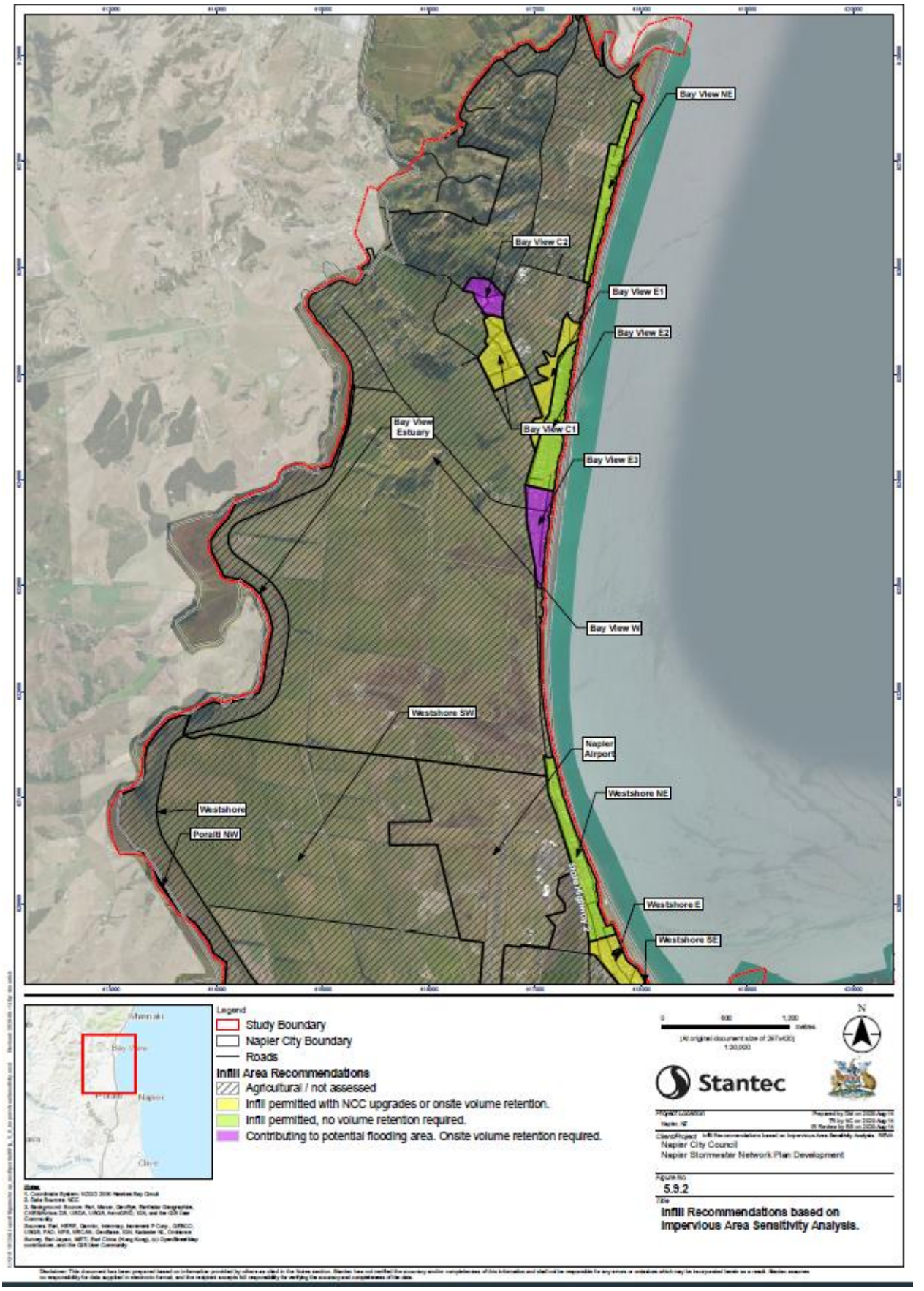


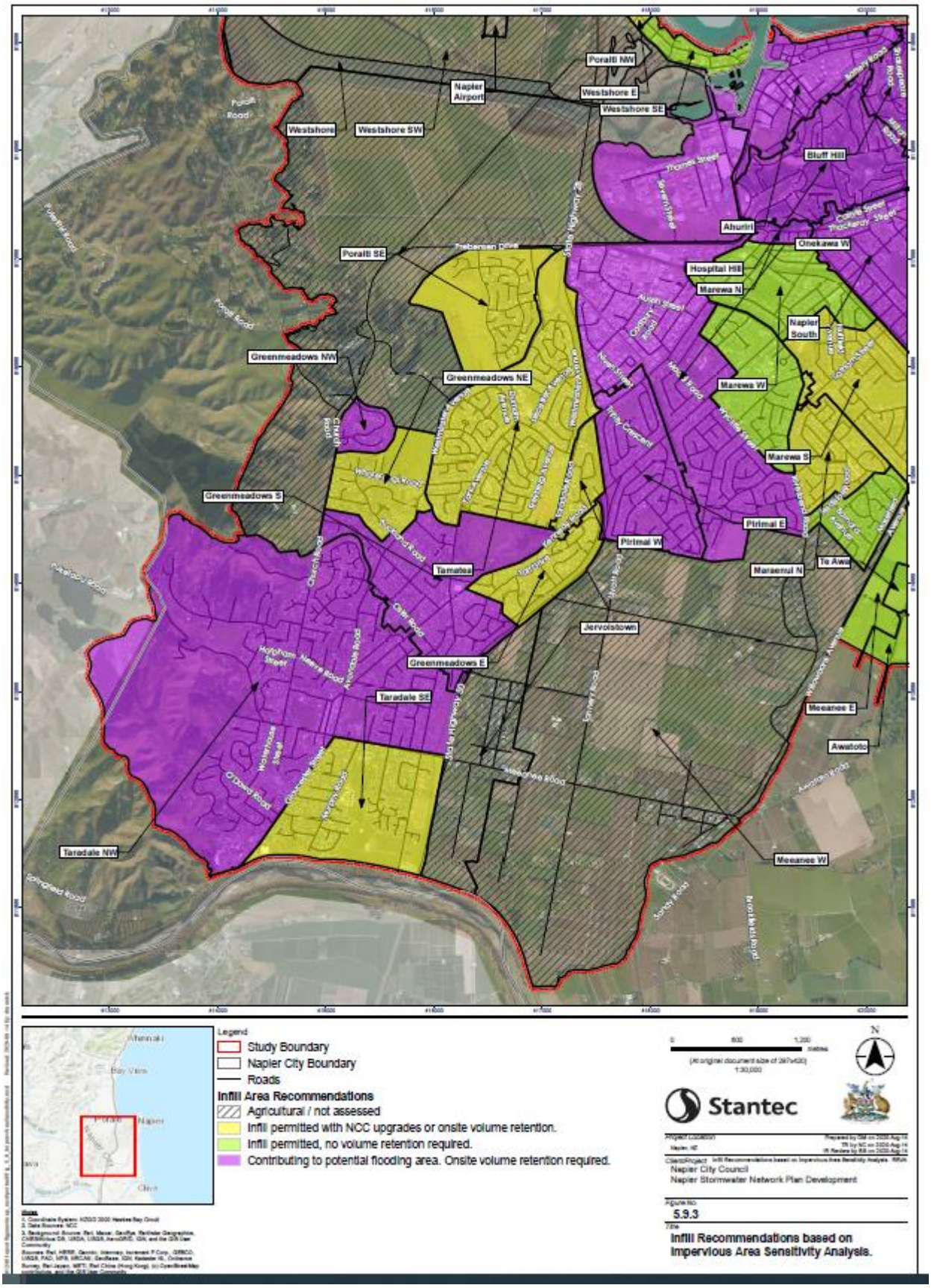


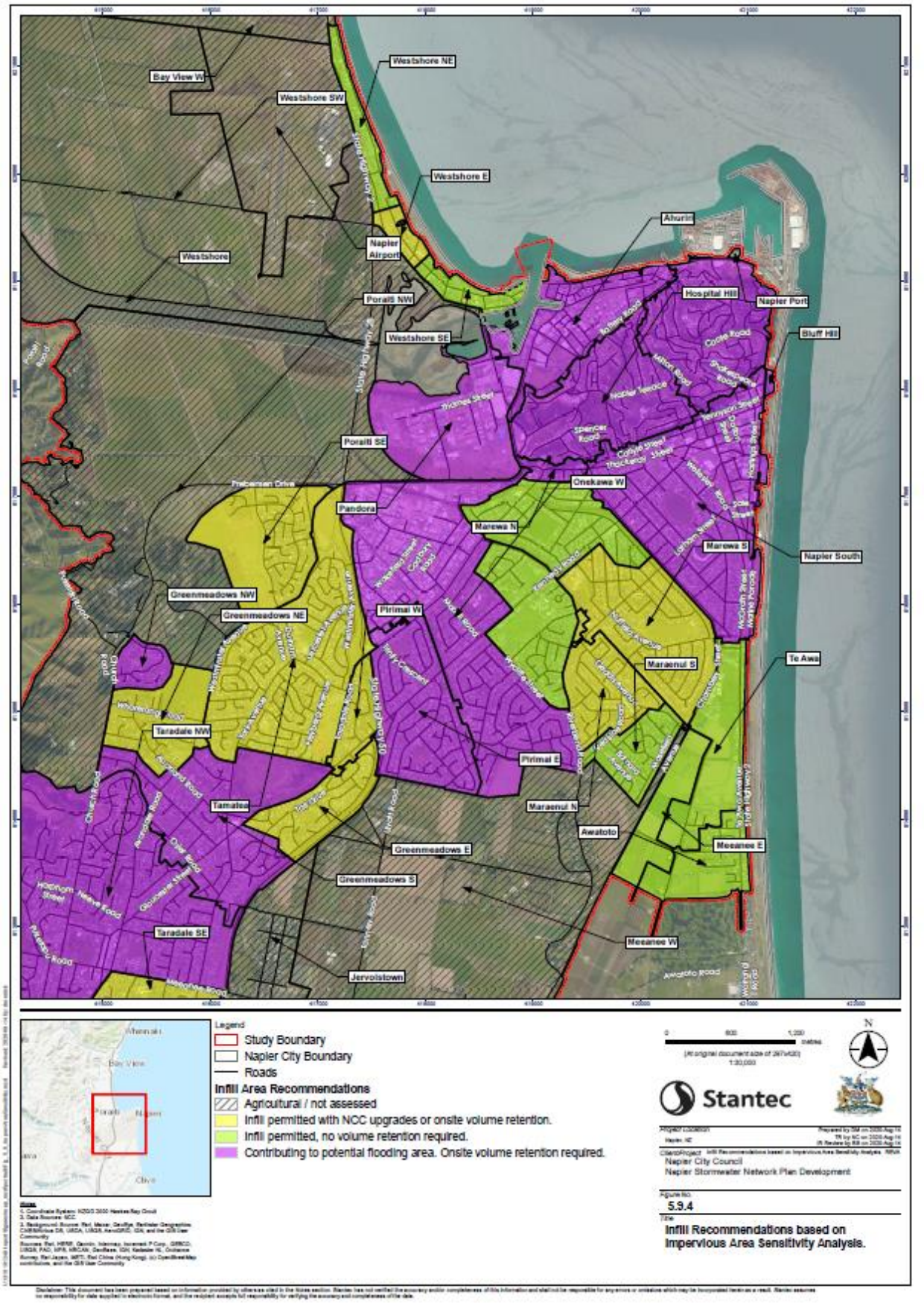


Appendix 20: Napier – Catchment areas




Bay View NE
Bay View C2
Bay View E1
Bay View E2
Bay View Estuary
Bay View C1
Bay View E3
Bay View W
Westshore SW
Napier Airport
Westshore NE
Westshore
Poraiti NW
Westshore E
Westshore SE
Legend
Study Boundary
Napier City Boundary
Roads
Infill Area Recommendations
Agricultural / not assessed
Infill permitted with NCC upgrades or onsite volume retention.
Infill permitted, no volume retention required.
Contributing to potential flooding area. Onsite volume retention required.
Stantec
Napier City Council
Napier Stormwater Network Plan Development
5.9.2
Infill Recommendations based on Impervious Area Sensitivity Analysis.


Poraiti NW
Napier Airport
Westshore E
Westshore SE
Westshore
Westshore SW
Bluff Hill
Ahuriri
Poraiti SE
Onekawa W
Hospital Hill
Marewa N
Napier South
Greenmeadows NW
Greenmeadows NE
Marewa W
Marewa S
Greenmeadows S
Pirimai E
Pirimai W
Tamatea
Maraenui N
Te Awa
Jervoistown
Greenmeadows E
Taradale SE
Meeanee E
Awatoto
Taradale NW
Meeanee W
Legend
Study Boundary
Napier City Boundary
Roads
Infill Area Recommendations
Agricultural / not assessed
Infill permitted with NCC upgrades or onsite volume retention.
Infill permitted, no volume retention required.
Contributing to potential flooding area. Onsite volume retention required.
Stantec
Napier City Council
Napier Stormwater Network Plan Development
5.9.3
Infill Recommendations based on Impervious Area Sensitivity Analysis.


Bay View W
Westshore NE
Westshore SW
Westshore E
Ahuriri
Napier Airport
Westshore
Poraiti NW
Hospital Hill
Napier Port
Bluff Hill
Westshore SE
Poraiti SE
Onekawa W
Pandora
Marewa N
Marewa S
Napier South
Greenmeadows NW
Greenmeadows NE
Primal W
Maraenui S
Te Awa
Taradale NW
Primal E
Tamatea
Maraenui N
Awatoto
Greenmeadows E
Meeanee E
Greenmeadows S
Taradale SE
Meeanee W
Jervoistown
Legend
Study Boundary
Napier City Boundary
Roads
Infill Area Recommendations
Agricultural / not assessed
Infill permitted with NCC upgrades or onsite volume retention.
Infill permitted, no volume retention required.
Contributing to potential flooding area. Onsite volume retention required.
N
Stantec
Napier City Council
Napier Stormwater Network Plan Development
5.9.4
Infill Recommendations based on Impervious Area Sensitivity Analysis.