

The background of the entire page is a close-up photograph of a leaf, showing its intricate vein structure and several small, clear water droplets resting on its surface. The lighting is soft, highlighting the texture of the leaf's surface.

# **Greater Christchurch Spatial Plan Dwelling Affordability Assessment**

**Prepared for Greater Christchurch Partnership**

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# Contents

<b>Executive Summary</b> .....	<b>1</b>
<b>1 Introduction</b> .....	<b>10</b>
1.1 Background .....	11
1.2 Scope.....	12
1.3 Structure .....	12
<b>2 Aspects of Dwelling Affordability</b> .....	<b>14</b>
2.1 Supply Side Aspects .....	14
2.2 Demand Side Aspects.....	20
2.3 Summary of Dwelling Affordability.....	27
<b>3 Current Dwelling Affordability</b> .....	<b>29</b>
3.1 Dwelling Stock.....	30
3.2 Dwelling Price Points.....	32
3.3 Affordability Outcomes.....	36
3.4 Summary of Current Dwelling Affordability.....	40
<b>4 Policy Situation</b> .....	<b>42</b>
4.1 National Policy .....	42
4.2 Local Policy.....	48
4.3 Development Pattern Options.....	51
4.4 Summary of Policy Situation .....	60
<b>5 Affordability Assessment</b> .....	<b>62</b>
5.1 Model Structure .....	62
5.2 Dwelling Price Point Model.....	65
5.3 Dwelling Affordability Model .....	74
5.4 DAM and DPPM Tool .....	80
5.5 Summary of Affordability Assessments .....	81
<b>6 Conclusion</b> .....	<b>83</b>
<b>Appendix 1 Detailed Results</b> .....	<b>85</b>

# Figures

Figure 0.1: Current Price Points Status Quo Outcomes .....	7
Figure 2.1: Residential Build Cost and Consumer Price Inflation 1995-2022 .....	17
Figure 2.2: Residential Build Cost and Consumer Price Index (2010 base year, 1000) .....	18
Figure 2.3: Land Value of Average Dwelling (Existing and New) .....	20
Figure 2.4: Census 2018 Household Income - Greater Christchurch .....	23
Figure 2.5: Housing Continuum – Emergency, Social, Assisted, and Market .....	25
Figure 2.6: Distribution of Housing Continuum – Emergency, Social, Assisted, and Market .....	27
Figure 3.1: Greater Christchurch Urban Area .....	30
Figure 3.2: Greater Christchurch Urban Existing Dwelling Stock by Typology and Sub-area (2022)....	31
Figure 3.3: Greater Christchurch Urban Dwelling Building Consents by Typology (2000-2022).....	32
Figure 3.4: Greater Christchurch Urban Dwelling Sale Prices (1993-2022).....	33
Figure 3.5: Greater Christchurch Urban Estimated Dwelling Price Points 2022.....	34
Figure 3.6: Greater Christchurch Urban Estimated Dwelling Price Points 2022 – by subareas.....	35
Figure 3.7: Greater Christchurch Urban Income Distribution 2022.....	37
Figure 3.8: Dwelling Price Point that are Affordability for each Level of Household Income .....	38
Figure 3.9: Affordability Outcomes 2022 for each Level of Household Income.....	40
Figure 4.1: New Zealand Net Migration 2001 to 2022 .....	44
Figure 4.2: Greater Christchurch Urban Area Dwellings – 2022 and 2051 Development Pattern .....	53
Figure 4.3: Greater Christchurch Urban Area Dwellings - Consolidated Development Pattern 2051..	55
Figure 4.4: Greater Christchurch Urban Area Dwellings – Compact Development Pattern 2051.....	57
Figure 4.5: Greater Christchurch Urban Area Dwellings – Dispersed Development Pattern 2051 .....	59
Figure 5.1: Dwelling Price Point Model – Structure, Data Inputs and Assumptions. ....	63
Figure 5.2: Dwelling Affordability Model – Structure, Data Inputs and Assumptions.....	64
Figure 5.3: Christchurch Price Points Distribution – Current Dwellings (2022) and Feasible Dwellings .....	67
Figure 5.4: Selwyn Price Points Distribution – Current Dwellings (2022) and Feasible Dwellings .....	68
Figure 5.5: Waimakariri Price Points Distribution – Current Dwellings (2022) and Feasible Dwellings	69
Figure 5.6: Consolidated Price Points 2051 Distribution Compared to 2022 Price Points .....	70
Figure 5.7: Consolidated Price Points 2051 .....	70
Figure 5.8: Compact Price Points 2051 .....	71
Figure 5.9: Dispersed Price Points 2051.....	72
Figure 5.10: Current Price Points Status Quo Outcomes .....	73
Figure 5.11: Average Price Points Status Quo Outcomes by Area and Development Pattern .....	74
Figure 5.12: Dwelling Affordability Model – Household Income Distribution GCU area .....	75
Figure 5.13: Consolidated Affordability Outcome 2051 - GCU, Christchurch, Waimakariri and Selwyn .....	77

Figure 5.14: Compact Affordability Outcome 2051 - GCU, Christchurch, Waimakariri and Selwyn ....	78
Figure 5.15: Dispersed Affordability Outcome 2051 .....	79
Figure 5.16: Dwelling Price Point Model – Results Sheet .....	80
Figure 5.17: Dwelling Affordability Model – Results Sheet .....	81
Figure 6.1: Estimated Dwelling Price Points 2022 – by subareas and type of dwelling .....	85
Figure 6.2: Consolidated Price Points 2051 – by subareas and type of dwelling .....	86
Figure 6.3: Compact Price Points 2051 – by subareas and type of dwelling .....	87
Figure 6.4: Dispersed Price Points 2051 – by subareas and type of dwelling.....	88
Figure 6.5: Consolidated Price Points 2051 – by subareas and type of dwelling (Status Quo Current Prices).....	89
Figure 6.6: Compact Price Points 2051 – by subareas and type of dwelling (Status Quo Current Prices) .....	90
Figure 6.7: Dispersed Price Points 2051 – by subareas and type of dwelling (Status Quo Current Prices) .....	91

# Executive Summary

The Greater Christchurch Partnership has been developing a Spatial Plan that aims to enable sufficient development capacity to accommodate growth within the Greater Christchurch urban area. As part of the research, the partnership has been assessing the benefits and costs associated with three different development pattern options for accommodating the expected growth:

- ❖ “Consolidated”, a pattern which assumes that the growth trend continues with increasing intensive development;
- ❖ “Compact” which assumes more multi-unit dwellings are developed within the central parts of the urban area;
- ❖ “Dispersed”, a pattern that assumes more standalone dwellings are developed on the edge of the urban areas.

One aspect which has not been assessed is the implications for dwelling affordability. The primary purpose of this research is to assess the potential outcomes from the three development pattern options, in terms of price points achieved (stage 1) and commonly applied affordability metric (stage 2). We have also been asked to provide qualitative discussion of the key aspects that influences the affordability of dwellings in the urban area.

The first step in this study was to undertake research on the key aspects of the housing market and affordability to develop a qualitative framework. The existing research base and the qualitative framework is important as it provides a baseline from which the aspects of the market are analysed and converted into the modelling. This report has drawn on existing research that has been completed by the Partnership and other researchers, to establish a practical and theoretical understanding of the aspects of the housing market that are important for dwelling affordability.

The goals of this step is to build on the existing research to qualitatively outline the key aspects of ‘affordability’ from both the supply-side and demand-side, and to develop a qualitative framework for considering how the policy settings in each development pattern option could influence housing supply, and associated affordability.

In summary there are a number of important aspects of dwelling demand and supply that come together in combination to influence affordability. We consider that the following aspects are important and where possible we have included them within the modelling.

- ❖ **Developer Type:** there are a range of developer types that provide dwellings in the urban area. For this assessment we have collected data from each of the partnership councils to understand the average commercial developer. We consider that it would be valuable to

assess other types of developers, however that is outside the scope of this project. We note that the data on the average commercial developer will provide a reasonable representation of most development activity. However, other types of developers, who are not modelled, will tend to provide more of the lower value dwelling types.

- ❖ **Build Costs:** the inflation of build costs has been assessed within the feasibility modelling work and has therefore been indirectly included within modelling.
- ❖ **Capacity:** each of the councils have provided their most recent assessments of capacity. However, it is acknowledged that planning processes around the intensification (Housing Enabling Act) will result in changes in the coming months. Given the scale of the capacity that is currently enabled within the proposed policies we consider that most changes during this process will not be material to the modelling undertaken in this report.
- ❖ **Land Values:** the inflation of land values has been assessed within the feasibility modelling work and has therefore been indirectly included within modelling. However, we acknowledge that the up-zoning that is proposed for the Housing Enabling Act could result in increases in land values which is likely to be greatest for existing dwellings in the inner parts of the urban area. The outcome could be that existing dwelling stock increases in value and hence becomes more unaffordable. We consider that this impact on land values may need to be assessed by councils, and feasibility modelling may need to be updated.
- ❖ **Household Preferences:** given the lack of data on dwelling preferences it is not possible to model how households would react to different dwelling stock provisions that have been suggested in the development pattern options. As noted above, it is likely that enabling dwellings within different locations and typologies would result in changes in demand patterns. This could have further impacts on the market and dwelling affordability beyond what is modelled in this research.
- ❖ **Household Budget:** household budget can be reasonably estimated in terms of income, and these aspects are included in the modelling. The wealth aspect of the household budget cannot be estimated.
- ❖ **Housing Continuum:** in order to understand the full range of dwelling affordability the modelling would need to include the entire continuum of housing options that are available. The available information can provide an understanding of most dwellings that are available for the 'market' parts of the continuum. However, there is limited data on the other parts of the continuum. As such these aspects are not modelled in this assessment.

The second step in the research was to draw from available data to understand the current housing market, including a discussion of dwelling stock, price points, and affordability outcomes. The objective of this assessment is to provide a reference point from which the modelling is based.

Assessment of the current dwelling affordability outcomes for urban area shows that there is a considerable group of households that currently face poor housing affordability outcomes. Using a commonly accepted indicator of affordability where households should spend no more than 30% of their gross household income on housing, indicates that there are currently very few dwellings at price points which would be affordable to lower income households.

While a large share of the households in the urban area may not face poor housing affordability outcomes, particularly the 47% of households earning \$100,000+, it is clear that many in the community do struggle with housing affordability. This outcome is noted in earlier work commissioned by the Partnership, which concluded that there is a significant and ongoing need for government support.

The estimate of the affordability outcomes presented in this report shows that currently:

- ❖ Nearly 50% of households in urban area have high enough income to afford most dwellings in the area and are not likely to face affordability issues.
- ❖ For the other half of the households there is a small amount of dwelling stock available at affordable price points. There will be some households in these lower income groups that have a significant asset base, which means that they may have less pressing housing affordability outcomes (i.e. some will have large deposit and can afford dwellings at a higher price point).
- ❖ The most significant affordability issue will be felt by the 5% of households with incomes under \$30,000, who cannot afford to buy any dwellings (notwithstanding their asset base), and by the 13% households that have incomes between \$30,000-50,000. Many of these households face severe housing affordability issues and are unlikely to be able to purchase a home in the current market.
- ❖ The 35% of households with incomes between \$50,000 and \$100,000 are also likely experience housing affordability issues, particularly given competition from households in higher income groups who may purchase the available stock.

The third step in the research was to establish the policy situation and settings that influence affordability of dwellings, at the national and local level, and in relation to the urban form scenarios being evaluated (i.e compact, consolidated and dispersed).

There are several national and local policies that are likely to contribute to significant changes in the housing market in urban area. The Partnership is assessing one policy change through the new Spatial Plan, namely urban form, which will operate within and in conjunction with a wider suite of policies



that may impact the housing market and affordability in the Greater Christchurch urban areas. This includes key influencing policies such as:

- ❖ **Monetary Policy:** is expected to drive considerable change in the housing market, with this macro policy is likely to impact affordability negatively via increasing interest rates. Conversely, the tightening of the monetary policy may also result in reduction in demand and an associated reduction in price points.
- ❖ **Immigration Policy:** post-Covid19 immigration settings are still yet to be established, however net-migration is starting to increase again with recent months showing small positive net inflows. If immigration returns to pre-Covid19 levels then there would be considerable pressures on the overall housing market, which may negatively impact affordability.
- ❖ **Taxation Policy:** may cause change in the future, especially if a capital gains tax is implemented, which would impact the tax incentives associated with home ownership and potential result in changes to income taxes which would impact what a household could afford.
- ❖ **Lending Policy:** has impacted the ability of households to both obtain a mortgage and increased the requirements around deposit. This outcome can lead to considerable impacts on the numbers of households that can afford to buy a dwelling and the overall housing market.
- ❖ **Building Policy:** there maybe changes to building policy, potentially with changes to account for climate change policy, and other changes in the quality of buildings. These can be expected to impact the cost of housing and the housing market.
- ❖ **Other National Policy:** there are a lot of other national policies that are likely to impact the housing market. These include subsidies to first home buyers (Kiwisaver, First Home Grant, First Home Loans, etc), investment/funding mechanisms for infrastructure (Housing Acceleration Fund, etc), public-private partnerships (Kiwibuild, etc), and decisions on other government services, and regulations (education, health, transport, road pricing, etc).
- ❖ **Kāinga Ora Role:** KO has only recently been created, and now has substantial powers to intervene in the housing market. KO as a developer has unprecedented amount of capital, landholdings, and wider range of objectives, which means that it could have a considerable impact on the housing market. KO has recently begun a process of assessing the first two potential areas where their new powers may be applied, with Specified

Development Projects being assessed in Porirua (6,000 dwellings)<sup>1</sup> and Tauranga (9,000 dwellings)<sup>2</sup>.

- ❖ **National Urban Development Policy:** the government has continued to change the intensification requirements at a rapid pace, the impacts of which will not eventuate for some years. At this time it is not possible to assess the impacts of the changes, however they are more or less outside the control of Partnership.
- ❖ **District Plans:** are in a state of flux in the urban area and are currently being changed to reflect national policy changes, leading to some uncertainty around the nature of land use policy, which will impact the local housing market for the near future.

Notwithstanding the range of other policies that will significantly impact the housing market in the urban area, the Spatial Plan and the choice of development pattern option can be expected to have a significant influence on the housing market. This report has taken the latest information from the council partners, to extrapolate the three development pattern options to establish the location and nature of dwellings that could be developed if the options are achieved.

In summary the outcomes for the development pattern options show that:

- ❖ For all three development pattern options (“Consolidated”, “Compact” and “Dispersed”) projected growth is for an additional 66,000 dwellings over the coming three decades, with the urban area growing from 197,000 dwellings today to just under 263,000 by 2051.
- ❖ If the Compact development pattern is to be achieved, a large share of growth would need to be accommodated in multi-units in Christchurch Inner and Outer<sup>3</sup>. Across the entire urban area 61% of new dwellings would need to be multi-units, which is a considerable shift, particularly in Selwyn and Waimakariri, from what has been achieved in the last decade.
- ❖ The development pattern for the Consolidated and Dispersed development patterns both show similar outcomes for Selwyn and Waimakariri, with the main differences being observed in Christchurch Outer. Across the entire urban area a high share of new dwellings would be standalone under the Consolidated (82%) and Dispersed (86%) options, with low shares of multi-unit dwellings. Compared to new dwelling building consents, these two development pattern options are similar to rates that were observed in the early 2000s.

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<sup>1</sup> Kāinga Ora (2022) Press release - *6,000 more homes possible for Porirua as Kāinga Ora considers using Urban Development Act provisions.*

<sup>2</sup> Kāinga Ora (2022) Press release - *New process considered for extensive urban development in Tauranga.*

<sup>3</sup> Based on Christchurch City Councils research it is expected that most of the multi-unit demand would be townhouses which would provide similar internal living areas as standalone dwellings.

The final step of the research was to quantify the affordability outcomes for the three development pattern options, using a static model that calculates the price points that can be expected in the future for all dwellings and the household incomes.

As noted above, there are many demand and supply aspects, and policy settings which significantly impact the housing market and affordability outcomes. The following model is static and does not attempt to estimate the potential implications of changes in these other important aspects of the housing market. The model simply quantifies a 'what if' scenario of the future, where the Partnership is able to achieve the stated development patterns, and does not assess the impacts of changes to these other aspects of the housing market.

To be specific the modelling holds everything else static, which allows us to isolate the impacts of the development pattern options. However, we note that changes to aspects are likely to occur (i.e. interest rates, migration, etc) which can be expected to significantly impact the housing market and affordability. These impacts are not modelled in this report and would require separate research.

The model was developed in two stages, the first being the Dwelling Price Point Model (DPPM), and the second being the Dwelling Affordability Model (DAM). The DPPM feeds into the DAM, which is the culmination of the research project.

The DPPM calculates the dwelling stock price points for 2051 for each of the development pattern options. The DAM builds onto the DPPM to include affordability metric which calculates future incomes for the households in the urban area, the maximum that the households can afford, and then compare this to the dwelling price points from the DPPM. The model shows the change in affordability that could occur under each of the development pattern options.

In summary the Dwelling Price Point Model, stage one of the modelling, shows that the market-based price points are likely to change significantly in the future. This change occurs under all of the development pattern options and the difference between the options is relatively small. A large share of dwellings will be valued at more than \$950,000 by 2051, with very few being valued below this point.

Comparing the three options, the Compact development pattern option would result in higher price points than the other two options in Selwyn and Waimakariri, followed by the Consolidated option. The Dispersed development pattern option would have the greatest share of lower priced dwellings in Selwyn and Waimakariri. This is driven by the relative cost of building new dwellings and higher density dwellings, which results in higher price points. The lowest price points in Christchurch City would be achieved under the Consolidated, followed by the Compact option, with the smallest share of lower priced dwellings existing under the Dispersed option.

One way to isolate the change that could be generated by the different development patterns is to apply a scenario with no price growth. This effectively compares the values of dwellings today with the price of new dwellings that would be required under each development option.

Figure 0.1 shows that:

- ❖ For Christchurch Inner, there would be an improvement in the number of low price point dwelling under the Compact option, followed by the Consolidated.
- ❖ For Christchurch Outer, there is minimal difference between the three development pattern options, with small improvement in price points for the Compact option and Consolidated. This result is because it assumes more of the Christchurch demand is met through greenfield in the city, rather than through redevelopment/intensification.
- ❖ For Waimakariri, there would be a larger improvement in dwelling price points under the Dispersed option, followed by the Consolidated.
- ❖ For Selwyn, there would be a larger improvement in dwelling price points under the Dispersed option, followed closely by the Consolidated.

**Figure 0.1: Current Price Points Status Quo Outcomes**



Figure 5.11 shows the difference in the average price of a dwelling under the status quo. The results show that under all development pattern options the price points would drop for the outer areas of GCU area (Christchurch Outer, Selwyn and Waimakariri). The inner parts of the GCU area would have

higher price points under all the options, with highest increase being under the Compact option, which is mainly driven by the relative difference between new apartments that are commercially feasible compared to the older dwellings that exist in the area. However, this is from a lower existing average price.

In total the GCU area would experience lower price points under all development pattern options, with 2% change under the Consolidated, while Dispersed and Compact would be 2.3% lower. This is driven by that fact that the average new dwelling that are expected to be commercially feasible are likely to have a lower value than the average existing dwelling. This difference puts downward pressure on the overall price points under all of the development pattern options.

The council feasibility assessments which are a key input of the modelling, are based on market outcomes which shows relatively small differential between the average dwelling price point that are feasible across GCU area. However, it is acknowledged that there are differences across the GCU area in terms of dwelling typology that are feasible and the size of the dwellings. Importantly, the cost of residential of land in the GCU area represents a relatively small share of the cost of dwelling (around a third or less) which means that the cost differential between each dwelling typology is comparable. As an example, recently sold dwellings in the greenfield areas have a land to capital ratio of 30%<sup>4</sup>, which compares to townhouses in Christchurch which can have a ratio of 20%<sup>5</sup>.

This means that the different distributions proposed in the development pattern options do not cause a significant change in affordability outcomes. Broadly, moving some growth from one area to the next does result in changes in overall price points, but in the context of the inertia created by the bulk of the existing dwelling stock the impacts are relatively small.

However, we consider that it is likely that the community will be provided with a wider range of dwellings than is suggested in the standard (NPSUD) feasibility assessments that have been used in the DPPM. For example, it is likely that government, non-government agencies, and other developers will provide dwellings at price points that are lower than what is predicted in the DPPM<sup>6</sup>, and this will increase dwelling numbers in lower, affordable price points.

The Dwelling Affordability Model, stage two of the modelling, shows that the incomes of households can be expected to increase which will offset some of the change in the Dwelling Price Points. However, based on incomes and standard affordability measures it is expected that a large share of households will not be able to afford a dwelling at the market based price points in 2051. This outcome

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<sup>4</sup> Recent sales example, 4 Altai Place, Rolleston had a sale price of \$750,000 and land lot price of \$193,000.

<sup>5</sup> Recent sales example, 126 Rugby Street, Merivale, Christchurch had a sale price of \$865,000 and land value of around \$150,000 per unit.

<sup>6</sup> Kāinga Ora (2022) Te Purongo Ā-Tau ANNUAL REPORT 20/21 – Price Points.

is unsurprising, and it is expected that a large share of households will continue to rent a dwelling or require assistance from the government, either directly in terms of social housing or subsidies.<sup>7</sup>

The affordability outcomes are reasonably similar between the development pattern options, with more or less the same number of households not being able to afford a dwelling under all three development patterns. This highlights the fact that affordability and housing market is multi-faceted and a change in policy around the spatial pattern is unlikely to solve the housing affordability crisis in and of itself, and also highlights the inertia in affordability that will take a long time to be overcome as new dwelling stock is created.

We agree with the findings of earlier housing research conducted for the Greater Christchurch Partnership that suggested that the partnership should explore development with “Kāinga Ora and community housing providers what is needed to more successfully develop market and subsidised affordable homes (including smaller homes).”<sup>8</sup> Also that housing need is likely to continue to be an issue over the coming three decades for a large share of households in the urban area, especially those that rent and/or who are supported by the government.<sup>9</sup>

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<sup>7</sup> Livingston and Associates Ltd (2021) Housing Demand and Need in Greater Christchurch.

<sup>8</sup> Community Housing Aotearoa and Perrot Consulting (2020) Greater Christchurch Partnership Social and Affordable Housing Action Report.

<sup>9</sup> Livingston and Associates Ltd (2021) Housing Demand and Need in Greater Christchurch.

# 1 Introduction

The Greater Christchurch urban (GCU) area has experienced high growth, with population and economic growth significantly exceeding projections in recent years, and that growth is expected to continue. The market, developers, households, and businesses are positive about development prospects within the GCU area, with growing numbers of new dwellings being consented and sale prices increasing rapidly, which have significant implications for council planning for the future.

The Greater Christchurch Partnership (GCP) has been developing a Spatial Plan that aims to enable sufficient development capacity to accommodate growth within the GCU area. As part of the research, the GCP has been assessing the benefits and costs associated with three different development pattern options for accommodating the expected growth:

- ❖ “Consolidated”, a pattern which assumes that the growth trend continues with increasing intensive development;
- ❖ “Compact” which assumes more multi-unit dwellings are developed within the central parts of the urban area;
- ❖ “Dispersed”, a pattern that assumes more standalone dwellings are developed on the edge of the urban areas.

These three development pattern options have already been assessed in terms of transport outcomes (trips, VKM, GHG, etc), urban form (accessibility, equity, jobs, etc.), and other issues.<sup>10</sup> One aspect which has not been assessed is the implications for dwelling affordability. The purpose of this research is to assess the potential outcomes from the three development pattern options, in terms of price points achieved (stage 1) and commonly applied affordability metrics (stage 2).

The GCP has commissioned Formative Limited to conduct economic research on the price points and affordability outcomes associated with the proposed alternative development pattern options, which was based on static model provided by GCP<sup>11</sup>. This research was conducted with support from the three partner councils: Christchurch City Council (CCC), Waimakariri District Council (WDC), and Selwyn District Council (SDC).

The GCP intends to use the outputs from this assessment and the other assessments to weigh the costs and benefits associated with each of the development pattern options to establish which is preferred. We note that this research has been conducted under tight timeframes and that some core

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<sup>10</sup> WSP, Aurecon, QTP (2022) GCSP Evaluation Framework – Stage 2 Evaluation.

<sup>11</sup> Nunns, P. (2020) Analysis of housing capacity and affordability impacts of WRGF options.

information that was provided by the partners could change because of research that is underway, and policy changes that are still to be confirmed (i.e. intensification policies and qualifying matters).

## 1.1 Background

The affordability of dwellings has become a widespread issue in the western world, with most large metropolitan cities in Europe, North America, Australia and New Zealand experiencing rapid rises in the costs of dwellings relative to growth in household incomes over the last decade.<sup>12</sup>

Christchurch has not been immune to this international trend, with dwellings becoming less affordable over the last decade. However, the change in affordability that has been observed in Christchurch has not been as severe as the other metropolitan cities in New Zealand (Auckland, Wellington) or Australia (Sydney, Melbourne, Brisbane, Perth, Adelaide).

The 'housing crisis' has resulted in consecutive governments implementing a range of policy changes which have been intended to alleviate the issue. This includes policies that influence both demand and supply to:

- ❖ direct intervention to provide new supply (Special Housing Areas, Kiwibuild, Kāinga Ora, etc),
- ❖ encourage private developers to provide more supply (infrastructure funding, etc.).
- ❖ encourage community providers to supply more housing (increased capital support, etc.)
- ❖ order enquiries into banking, building sector, migration, and housing affordability (Reserve Bank, Commerce Commission, Productivity Commission)
- ❖ require councils to monitor and change local plans to provide more capacity for development activity (two National Policy Statements, Housing Enabling Act, coming Resource Management Act reform, etc.).
- ❖ encourage demand for affordable dwellings (first home grants, Kiwisaver drawings, allow interest deductibility for new build rentals, etc.).
- ❖ discourage demand for dwellings (restrict foreign investors, ringfencing losses on rentals, bright line capital gains rule, loan to value ratio, etc.).

There are also a range of other policies that influence demand and supply for dwellings, such as migration, monetary policy, building codes, etc.

The volume of policy changes that have been implemented over the last decade which relate to dwelling demand and supply shows how significant the 'housing crisis' issue is for the government and

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<sup>12</sup> Urban Reform Institute (2022) Demographia International Housing Affordability



wider community. It also shows that there are many facets to the issue and that it will not be solved by any single policy in isolation. The GCP and the partner councils have limited policy levers, which means that the implementation of a Spatial Plan, in and of itself, cannot be expected to solve the 'housing crisis' but can contribute to alleviating the problem by ensuring there is no shortage of opportunities for development of dwellings to meet need which would continue to maintain downward pressure on the market.

## 1.2 Scope

The focus of this report is to provide economic research of the affordability outcomes associated with the implementation of the proposed Christchurch Spatial Plan through:

- ❖ Establishing qualitatively the key aspects of dwelling affordability, using existing research and information provided by the each of the GCP partners. This includes supply-side and demand-side aspects of the market.
- ❖ Identifying the current situation within the Greater Christchurch area, which utilises available data to estimate the current stock, price points, household position and associated dwelling affordability outcomes.
- ❖ Defining the national and local policy settings which influence dwelling affordability, and outline the nature of the proposed Spatial Plan, as defined in the three development pattern options, which have been proposed by the GCP.
- ❖ Quantifying, to the extent possible, dwelling affordability outcomes that could occur as a result of the implementation of the proposed Spatial Plan development pattern options relative to the status quo development pattern.
- ❖ Providing a tool which will allow the GCP to test the impacts of changes to the development pattern options.

The housing market in any large city is complex, with many local, regional, national and international factors influencing the outcomes within the market. It is not possible to model every aspect of the market, which means that researchers must apply simplifying assumptions to enable a model to be built. Throughout this report these model closure assumptions and caveats will be noted. It is considered that with more resources some of the assumptions could be relaxed, with these aspects being included within the structure of the model.

## 1.3 Structure

This report is structured into six subsequent sections, as follows:

- ❖ Section 2 discusses qualitatively key supply and demand aspects of dwelling affordability.

- ❖ Section 3 outlines an estimate of the current dwelling affordability outcomes in Greater Christchurch urban areas.
- ❖ Section 4 defines the policy situation and the alternative development patterns that are assessed in the modelling.
- ❖ Section 5 quantifies, where possible, the dwelling affordability outcomes associated with the different development patterns that have been proposed. This assessment provides an estimate of the net outcome, for the community as a whole.
- ❖ Section 6 provides the findings of the research.

## 2 Aspects of Dwelling Affordability

The first step in this study was to undertake research on the key aspects of the housing market and affordability to develop a qualitative framework. The existing research base and the qualitative framework is important as it provides a baseline from which the aspects of the market are analysed and converted into the modelling. This section of the report draws on existing research that has been completed by the GCP councils and other researchers, to establish a practical and theoretical understanding of the aspects of the housing market that are important for dwelling affordability.

The goals of this step is to build on the existing research to qualitatively outline the key aspects of 'affordability' from both the supply-side and demand-side, and to develop a qualitative framework for considering how the policy settings in each development pattern option could influence housing supply, and associated affordability.

### 2.1 Supply Side Aspects

First, from the supply side there are four main aspects that influence the number of dwellings that can be supplied to the community: the type of developer, building costs, capacity, and land values.

#### 2.1.1 Developer Type

There is a continuum of developers, market and non-market, who develop dwellings which are supplied to the community. Each of the developers has a different business model which means that they can supply different types of dwellings at a range of price points. The continuum includes market developers such as speculators, group home builders, contract builders and retirement living providers, all of which construct dwellings to make a profit by supplying the dwellings to the community via a market transaction.

There are also a range of non-market developers which have non-profit motives that means they can supply dwellings at prices that are lower than the market developers. These developers include both government and non-government organisations, with key suppliers being Kāinga Ora, Councils, Ōtautahi Community Housing Trust, Comcare, Emerge Aotearoa, Christchurch Methodist Mission, Vision West, Salvation Army, other religious groups, and Ngāi Tahu (Nōhaka Rau).

Each of the market and non-market developers have different business models which means that the type of dwellings developed and the cost of each dwelling is different, with a wide spectrum of different outcomes being available to the community at any time. This continuum of developer activity is too complex to model, with most research focusing generally on understanding a type of market developer.

For example, the National Policy Statement on Urban Development (NPSUD) requires councils to assess residential development in terms of “commercially viable”<sup>13</sup> and makes no allowance for the continuum of dwelling providers. Also, the assessment method proposed by the government<sup>14</sup>, and applied by most councils tests a single commercial development model. These models, more or less, adopt assumptions that model an ‘average’ commercial developer. This is understandable as the complexity associated with test feasibility for multiple dwelling types over a large number of locations is computationally demanding, so adopting one developer type is a necessary simplifying assumption.

However, we consider that it is important to understand that the continuum of developers means that the capacity assessments undertaken for the NPSUD will not accurately reflect the nature of entire range of dwellings that could be supplied to the community. It is very likely that there will be a larger range of dwelling types and price points than what is predicted by the feasibility modelling.

Importantly for this study, the feasibility models are likely to underestimate the amount of lower priced dwellings that could be supplied to the community. The following discussion outlines some examples of situations where lower priced dwellings are likely to be supplied, but would be recorded as not being feasible in the NPSUD assessments:

- ❖ **Retirement Living:** developers operate a different long term business model, where they do not need to make a profit from a single one-off sale of the dwelling. These businesses generate profit from providing services to the residents, fees on the sales property when a tenant leaves, and capital gains on the sale to the next tenant. In summary the provision of retirement living businesses is completely different to the general development market, which means that there would be some lower priced retirement dwellings that are not captured in the feasibility modelling.
- ❖ **Group Home Builders:** these larger developers operate a business model that reduces the overall cost of the development process, which means they can supply dwellings at a lower price. Importantly they sign contracts with the buyer for a fixed price with a set of payments throughout the build process. This reduces the risks and the requirement for capital, which are effectively transferred to the customer who funds the project via instalments. Also, group home builders have economies of scale and are able to design and build at a lower cost. In summary the group home business is different to the general development market, which means that there would be some lower priced dwellings that are not captured in the feasibility modelling.
- ❖ **Build to Own:** some in the community build their own house, for themselves and their whanau. These people can develop their own house to meet their needs which can be

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<sup>13</sup> National Policy Statement on Urban Development 2020

<sup>14</sup> Ministry for the Environment (2019) NPS-UDC development Feasibility Tool.

very different to the rest of the community and they do not need to make a profit. For example, parents build a secondary dwelling on their property for a relative (granny flat or a dwelling for a child). These developments are likely to supply some lower priced dwellings that are not captured in the feasibility modelling.

- ❖ **Government Housing Providers:** Kāinga Ora, other government agencies and Council providers all have a range of statutory defined motives for developing dwellings for the community. Without reviewing the statutes that guide each provider it is likely, for the most part, that there are numerous non-commercial motives that means that these providers develop dwellings that are lower cost than the market. These providers are likely to supply a large number of lower priced dwellings that are not captured in the feasibility modelling.
- ❖ **Community Housing Providers:** are similar to the government providers, with each having a range of different non-commercial motives for supplying dwellings to the community. Therefore, it is likely that they will supply a considerable number of lower priced dwellings that are not captured in the feasibility modelling.
- ❖ **Non-average Developer:** as discussed above, naturally there will be a range of developers in the market, each with different business models.<sup>15</sup> For example, a developer that specialises in providing a specific type of dwelling maybe be able to feasibly develop on a site, where the average developer would not be able to undertake a feasible development. It is likely that the feasibility modelling does not account for the variation in the market and that there will be some commercial supply of lower priced dwellings that is not captured in the feasibility modelling.

Notwithstanding the discussion and caveats outlined above about the NPSUD feasibility assessments, the results from the feasibility modelling has been adopted in this report and the model. At this time there is no alternative assessment that measures the full continuum of supply that would be supplied, which is an area of research which could be extended to improve the modelling that has been undertaken in this research.

### 2.1.2 Build Costs

The costs that developers must incur to build a dwelling are a key contributor to the assessment of new dwellings that can be supplied by the market. Generally building costs have tracked at a similar rate of change as background inflation. The recent impacts of Covid19 on production and supply chains (and other international issues) have resulted in widely reported large increases in building costs.

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<sup>15</sup> For example, Ockman Homes is an example of a corporate developer who is designing and building dwellings using a very different model from other standard developers.

Figure 2.1 shows that inflation in building costs and background inflation has been consistently rising over the last three decades. In the late 1990s and 2010 the inflation in building costs<sup>16</sup> (2.31% p.a.) was more or less the same as the background inflation rates<sup>17</sup> (2.35% p.a.). This means that in real terms that the cost of building a dwelling did not change significantly over the period. This changed in the following decade when the inflation in building costs (2.5% p.a.) was consistently higher than general background inflation (1.3%). Over the last two years inflation has spiked, for both building costs and background inflation.

**Figure 2.1: Residential Build Cost and Consumer Price Inflation 1995-2022**

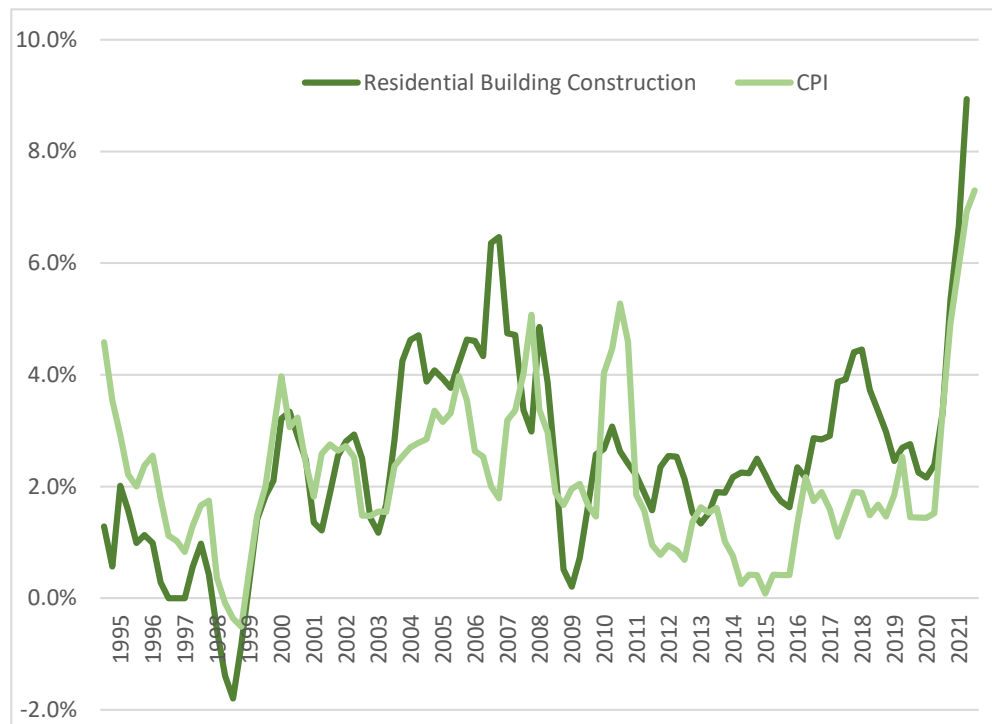
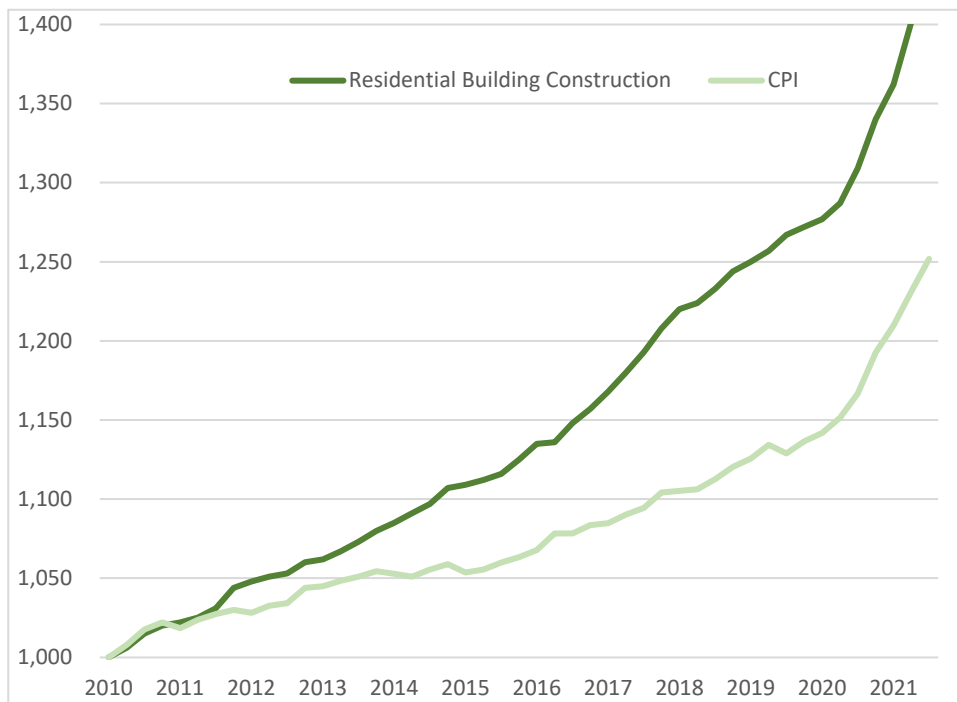


Figure 2.2 shows that in real terms building costs have increased by around 40% since 2010 and background inflation has increased by 25% over the decade. This means that in real terms building a dwelling today is significantly more expensive than it was in 2010.

<sup>16</sup> Statistics New Zealand (2022) Producer Price Index - Residential Building Construction (inputs).

<sup>17</sup> Statistics New Zealand (2022) Consumer Price Index - CPI All Groups for New Zealand.

**Figure 2.2: Residential Build Cost and Consumer Price Index (2010 base year, 1000)**



There is much debate about the possible future outcomes for building costs and background inflation, and the extent to which the government can bring inflation down (via Reserve Bank of New Zealand monetary policy) and/or influence building costs (via Commerce Commission inquiry). While this debate is important for short run outcomes for the supply of dwellings, we consider that from a long run perspective it is likely that building costs and background inflation will return to a position where rates are broadly consistent. Specifically, the real cost of building a dwelling is not expected to continue diverging from the trends seen in the rest of the economy.

### 2.1.3 Capacity

Another important aspect of the supply of dwellings is the extent to which developers are free to develop new dwellings within the urban area. Under the current planning frameworks there is sufficient capacity to accommodate new dwellings within the GCU area, however there are some potential capacity constraints in Waimakariri and Selwyn.<sup>18</sup>

Each of the GCP councils are currently going through a planning process which will allow even more development potential within the GCU area. Most important is the (almost) blanket introduction of Medium Density Residential Standards (MDRS) and, to a lesser extent, the allowance for High Density Residential (HDR) within close proximity centres, and the increase in activity allowed in commercial

<sup>18</sup> Greater Christchurch Partnership (2021) Greater Christchurch Housing Development Capacity Assessment.

zones. The residential changes will be notified in August 2022, and are expected to allow a greater range of development options across the GCU area. The commercial changes will be notified in 2023.

There have also been a number of private Plan Changes approved which provide more capacity, either under normal planning processes or via Covid19 Fast Track process, and both WDC and SDC have been considering options for providing more capacity to meet shortfalls, including as part of current District Plan reviews.

Broadly, the amount of capacity that is enabled within the GCU area has increased in quantum and type. Given the scale of existing capacity and the new capacity that has been or is expected to be enabled, it is likely that a share (less than half) of the total capacity will be required to meet the demands of the community. This outcome is discussed in more detail later in the report, see section 4.2.2 *District Plans*.

#### 2.1.4 Land Values

All urban dwellings require serviced residential land before development can occur. Generally, the value of land increases with proximity to the urban centre. This relationship is observed in GCU area, where land values on the edge of the urban area tend to be lower than land values in the inner parts of the urban area.<sup>19</sup>

Also, in the case that land can be used for more intensive activities, *ceteris paribus*, then it will have a higher value than other land. For example, if there were two identical pieces of land and the first allowed the development of a single house and the second allowed the development of three houses, then the land value of the second parcel would be higher. This is because the second parcel of land can provide more benefits to the owner than the first parcel. This relationship will be important for GCU area, with the up-zoning from the MRDS and HDR that is proposed for much of the residential zones which may generate increased land values.<sup>20</sup>

In greenfield developments in the GCU area the value of land can represent around a third of the new dwelling cost.<sup>21</sup> For multi-unit redevelopments the share tends to drop, with higher improvement costs to build (upwards) and less land required per unit.

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<sup>19</sup> Christchurch City Council, Selwyn District Council and Waimakariri District Council have provided data on the residential activities within each District. This data varies in terms of spatial unit (landholding and rateable property) and time. These differences have been accounted for the estimation of land values.

<sup>20</sup> The extent of the change will depend on scale of the application of the MDRS and the probability of development being actually achieved. Broadly, we would expect that land values will increase for most properties and that the increase will be larger for areas where the probability of redevelopment is highest (i.e. higher demand areas).

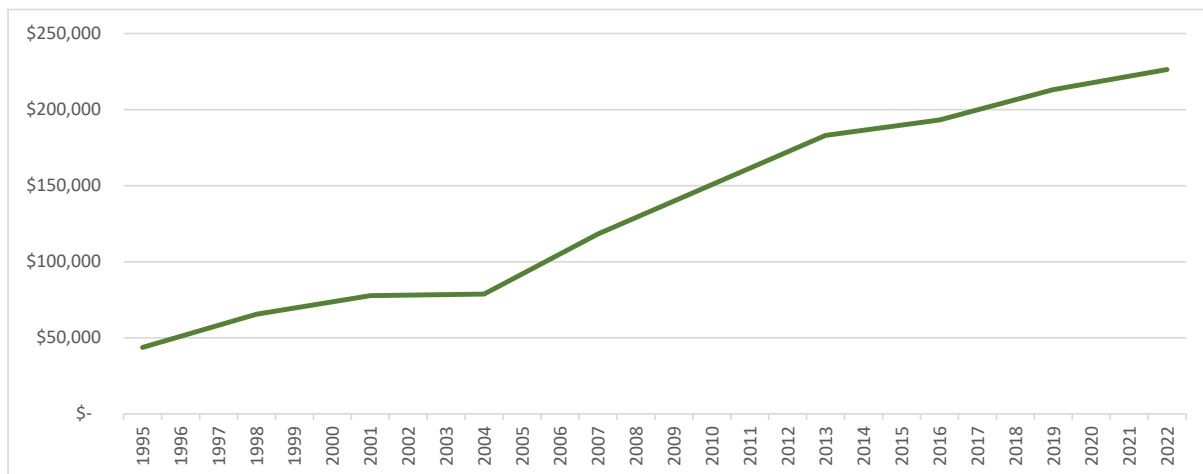
<sup>21</sup> Quotable Value (2022) Residential Sales Data – Vacant Lot and New Dwellings.



For existing dwellings, the land value tends to increase with time, with the building depreciating in value. For many existing dwellings in the inner parts of GCU area the land value share can be more than 50% and up to 90%, which indicates that these dwellings may be suitable for redevelopment. Since 2011 the average land to capital ratio for residential dwellings in GCU area has changed from 47% to 50%, which is relatively low compared to other high growth areas (Auckland 68% and Queenstown 58%).<sup>22</sup>

Figure 2.3 shows the average land value per dwelling for the GCU area.<sup>23</sup> In 1995 the average dwelling had a land value of just under \$50,000, which increased to around \$80,000 in the early 2000s. Over the following decade the value increased rapidly to almost \$200,000. Since 2013 land values increased by 2.4% (average annual), which was faster than background inflation (1.3%) and broadly equivalent to build cost inflation.

**Figure 2.3: Land Value of Average Dwelling (Existing and New)**



## 2.2 Demand Side Aspects

There are three key aspects of household demand for dwellings, the preferences of households (i.e. what they want), budget constraints (i.e. what they can afford), and housing continuum (i.e. options available). These aspects define the range of dwellings that households would be willing to select from, when making decisions about housing. Households undertake a complex decision-making process where they assess the benefits and costs associated with the available options in the market, whether that is to buy or rent a dwelling. The following discussion outlines the demand side aspects and whether the aspects can be included within the economic modelling undertaken for this research.

<sup>22</sup> Ministry of Housing and Urban Development (2022) Market Indicators.

<sup>23</sup> Ibid.

### 2.2.1 Household Preferences

The demand for dwellings is influenced by the preferences for certain characteristics of dwellings. While each household will have different preferences for each characteristic it is important to note that on average some features tend to be preferred, and others are avoided.

Generally, each household will assess the characteristics of the dwellings that are available (and within budget) and pick the dwelling that best meets their preferences. Also, certain characteristics will tend to be preferred by most households, which means that there tends to be more demand for dwellings with these characteristics. As an example, all else being equal, a dwelling located in a good school zone will tend to attract more demand than the same dwelling outside of the zone.

There has been a string of research called Housing We'd Choose (HWC), which assessed household preferences for dwellings for high growth areas in New Zealand (Auckland<sup>24</sup>, Hamilton<sup>25</sup>, Dunedin<sup>26</sup>, Nelson<sup>27</sup>, and Marlborough<sup>28</sup>) and Australia (Melbourne, Sydney, Perth, etc)<sup>29</sup>. The research investigates the characteristics of dwellings and household preferences to establish the nature of the trade-offs that occur when decisions are made around dwellings. This research shows that the preferences are complex and vary across the community.

This research showed that households tend to place most importance on the characteristics of the dwelling's location (safe neighbourhood, attractive area, etc), followed by property characteristics (standalone, north facing, etc). Dwelling features (bedrooms, living space, etc) and accessibility features (public transport, close to work, etc) were important, but less so than the other characteristics. While this research has not been conducted for the GCU area it is likely that the findings would be comparable.

Also, in 2021 Christchurch City Council completed a housing survey which broadly showed that the households in the community have similar preferences for housing characteristics as has been observed in other cities in New Zealand.<sup>30</sup> While this survey did not investigate housing choices or budget constraints, it did ask respondents whether they considered that housing was affordable. Most respondents (63%) considered that housing options in Christchurch are not affordable. The majority

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<sup>24</sup> Yeoman, R and Akehurst, G (2015). The housing we'd choose: a study of housing preferences, choices, and tradeoffs in Auckland. Auckland Council technical report, TR2015/016.

<sup>25</sup> Yeoman, R and Akehurst, G (2020) Future Proof sub-region Housing Study: Demand Preferences and Supply Matters.

<sup>26</sup> Akehurst, G. and Yeoman, R (2019). Housing Framework Predictions: The Housing We'd Choose. Dunedin City Council.

<sup>27</sup> Yeoman, R and Akehurst, G (2021) Nelson-Tasman Housing We'd Choose Housing Demand Preferences.

<sup>28</sup> Erasmus, T and Akehurst, G (2022) Marlborough Housing We'd Choose Housing Demand Preferences.

<sup>29</sup> Grattan Institute (2011-etc) The housing we'd choose. Melbourne.

<sup>30</sup> Christchurch City Council (2021) Housing Survey - Life in Christchurch housing.

of respondents considered anything over \$500,000 as unaffordable. We consider that it would be useful for GCP and Christchurch to extend the survey to include the HWC method, which will provide an understanding of housing choices within budget constraints.

It is beyond the scope of this report to discuss the wide range of characteristics, and the relative importance of these, to household decisions around housing. It is acknowledge that preference will impact affordability<sup>31</sup>. Given the complexity of preferences it would not be possible to model the potential differences in demand that could result under each of the different development pattern options for GCU area. However, it is likely that enabling dwellings within different locations and typologies would result in changes in demand patterns. This could have further impacts on the market, price points, and dwelling affordability beyond what is modelled in this research.

### 2.2.2 Household Budget

Each household has a budget constraint that defines the range of dwellings that they can afford, either to buy or rent. The budget constraint for each household is defined by their own resources (i.e. income and assets) and policy settings which are defined at the national level (interest rates, bank lending requirements, subsidies, etc).

First, and most obviously, the household budget is a function of household income. That collective income will influence how much the household would be willing or able to borrow to buy a dwelling or pay in rent. In many cases a household will not be willing to borrow up to the maximum level allowed by the bank.<sup>32</sup> However, for first home buyers and households on lower income, the level of income becomes much more important.<sup>33</sup>

The 2018 Census showed that median household income was \$74,000 in Christchurch City, \$79,000 in Waimakariri, and \$103,000 in Selwyn.<sup>34</sup> Around 40% of households in the three territorial areas had an income of more than \$100,000, 40% had incomes of \$30,000 to \$100,000, and less than 20% had incomes of less than \$30,000.

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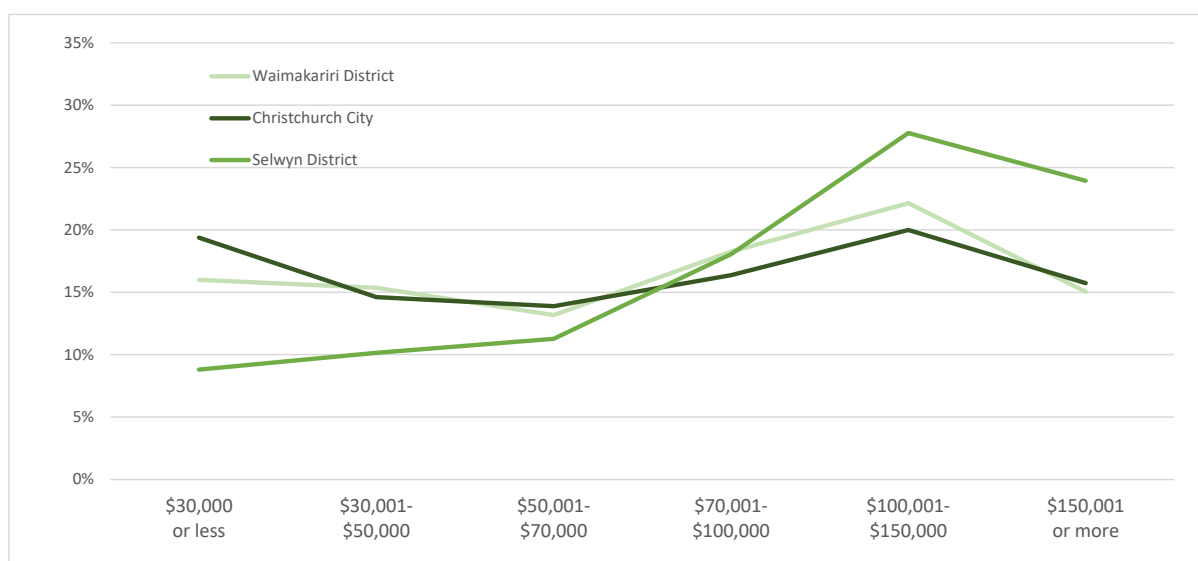
<sup>31</sup> Christchurch City Council research indicates that it is difficult to separate preference around characteristics and amenity, and how this influences affordability.

<sup>32</sup> Reserve Bank of New Zealand (2022) Residential Mortgage Lending by debt-to-income (DTI) (C40).

<sup>33</sup> Ibid – first home buyers tend to have a much higher Debt to Income ratio than existing dwelling owners.

<sup>34</sup> Statistics New Zealand (2018) Census of Population and Dwellings.

**Figure 2.4: Census 2018 Household Income - Greater Christchurch**



While census data is now over four years old, it does provide insight into the income distributions of households in the GCU area. The most recent Household Economic Survey indicates that incomes increased by around 5% between 2018 and 2021 and that the distribution will have shifted accordingly, with fewer households now earning less than \$30,000.<sup>35</sup> Also recent labour market statistics suggests that incomes have grown by a further 3% in 2022.<sup>36</sup> There is some evidence that salaries and wages have grown quickly in recent months, Xero released data that showed small business wages grew 5.3% year-on-year in May - the fastest growth since 2017.<sup>37</sup> The tight labour markets and high inflation has meant that businesses are paying higher incomes to keep staff and attract new staff.

Another important aspect of the household budget is the amount of assets that the household can utilise to support the purchase of a dwelling (or fund rent). In New Zealand the amount of assets that households hold is considerable, with current net wealth being more than 500% greater than value of mortgages.<sup>38</sup> At the national level mortgage data shows that many households are able to use their assets to purchase a house using a larger deposit than is required. In the last 12 months over 87% of mortgages that were issued had a loan to value ratio of less than 80%.<sup>39</sup> Approximately 61% of households that own their primary residence have a mortgage and for those households the median property debt increased to \$260,000 in the year ended June 2021.<sup>40</sup> This means that half of New

<sup>35</sup> Statistics New Zealand (2022) Household Economic Survey – Gross Income.

<sup>36</sup> Statistics New Zealand (2022) Labour market statistics: March 2022 quarter.

<sup>37</sup> Xero (2022) New Zealand small business wages and jobs up in May 2022, outpacing Australia and UK – 30 June.

<sup>38</sup> Reserve Bank of New Zealand (2022) Key household financial statistics (C21).

<sup>39</sup> Reserve Bank of New Zealand (2022) New residential mortgage lending by loan-to-valuation ratio (LVR) (C30)

<sup>40</sup> Statistics New Zealand (2022) Household Net Worth Statistics: Year End June 2021.

Zealand households with a mortgage have a debt on their house of less than \$260,000. However it is important to note that that first home buyers tend to take on larger mortgages, with the average first home buyer having a mortgage of over \$550,000.<sup>41</sup> The data shows that affordability is of most concern to the households that are new to the market or that are renting.

However, the distribution of wealth is uneven, with the wealthiest 10% of households having 51.5% of all wealth and the wealthiest 50% of households having 93.3% of all wealth.<sup>42</sup> This means that for the most part the wealthier half of the community has large enough incomes and assets that housing affordability is not a constraint.

Third, monetary policy settings are an important influence on dwelling affordability, as they impact the amount that can be borrowed and the cost of that borrowing. The Reserve Bank of New Zealand (RBNZ) has placed a number of restrictions on commercial banks, to ensure that mortgage lending is prudent. This has included the introduction of Loan to Value ratio (LVR), Debit to Income ratios (DTI), stress tests, and other financial responsibility requirements. These monetary policies have restricted the amount of lending that the commercial banks can lend to households. Also the RBNZ has begun to increase the Official Cash Rate which impacts the cost of borrowing, and the amount of money that can be lent. While a household may have sufficient income or assets to buy a given dwelling, monetary policies may mean that commercial banks are not able to provide a mortgage.

Finally, the government has also introduced a number of subsidies for first home buyers. This can either be a direct subsidy in the form of money for deposit (First Home Grant) or allowing the household to make a withdrawal from their Kiwisaver as a deposit. Another form of government subsidy is shared ownership schemes where the government provides a deposit and the household covers the mortgage on the remaining purchase price.<sup>43</sup> These directed interventions can change the budget constraints for the targeted households.

The discussion above shows that the budget of households is not simply related to incomes and should be considered in terms of wider factors including assets and policy settings. The willingness to borrow and the ability to borrow generally do not equate. Therefore, it is important to include more than income within the assessment of affordability, and the following model has not been developed to include these other aspects.

### 2.2.3 Housing Continuum

Households live in a range of different types of dwelling arrangements, which includes both market and non-market options. The housing continuum of dwelling options that are available is connected

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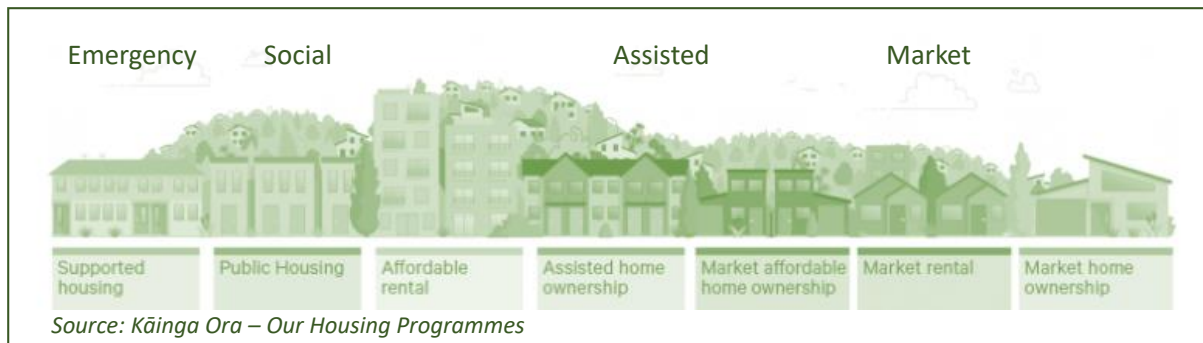
<sup>41</sup> Reserve Bank of New Zealand (2022) New residential mortgage lending by borrower type (C31).

<sup>42</sup> Statistics New Zealand (2021) Gini index and percentage of total wealth held by selected wealth percentiles.

<sup>43</sup> Kāinga Ora (2022) First Home Partner.

to the developer type, which was discussed in the supply side aspects above, but also extends to include tenure type. There is a range of tenure types, which includes emergency housing, transitional housing, public housing, affordable rentals, assisted home ownership, affordable home ownership, market rental, and market home ownership.

**Figure 2.5: Housing Continuum – Emergency, Social, Assisted, and Market**



Each option along the housing continuum requires different levels of resources, with most households being able to afford market options, some households needing to be assisted, and a small number needing direct support. The community and social housing providers discussed in the supply side section of this report target their provision of dwellings to accommodate the needs of lower income households.

This means that any assessment of affordability needs to also include the full continuum of housing options, as assisted and social dwellings are critical components of the housing options that will be available to lower income households that have the most pressing housing needs. A focus purely on market provided dwellings, either for sale or rent, would not provide an accurate picture of the situation.

Based on available data it is possible to estimate the housing continuum:

- ❖ **Emergency:** the most recent data from Ministry of Housing and Urban Development (MHUD) shows that there were 397 transitional and 2,073 emergency housing units within the GCU area in 2021.<sup>44</sup> This means that 1.2% of households were accommodated in emergency housing. Also, the Ministry’s data shows that there were 1,893 applicants or another 1% of the households that needed help.
- ❖ **Social Housing:** the most recent data from MHUD shows that there were 7,726 social properties owned or leased by Kāinga Ora and registered Community Housing Providers

<sup>44</sup> Ministry of Housing and Urban Development (2021) Public Housing in 30 June 2021 Canterbury Region.

within the GCU area in 2021.<sup>45</sup> This means that 3.7% of households were accommodated in social housing.

- ❖ **Assisted Rental:** there is no publicly available data on the number of households that receive support from the government for rentals in the GCU area. However, based on regional data on the accommodation supplement it is likely that a large share (upwards of 40%) of households that rent receive assistance from the government<sup>46</sup>. It is estimated that around 12% of all households were accommodated in assisted rentals.
- ❖ **Assisted Ownership:** there is no publicly available data on the number of households that receive support from the government for rentals in the GCU area. However, based on the small number of assisted living schemes it is likely that a small share of households that own their house receive assistance from the government. It is estimated that less than 1% of households were accommodated in assisted ownership.
- ❖ **Market Rentals:** after accounting for social and assisted rentals it is expected that around 16% of households were accommodated in market rentals<sup>47</sup>.
- ❖ **Market Housing Ownership:** finally, research on household suggests that in 2021 that owner occupiers account for 67.1% of households<sup>48</sup>. We understand that there is limited assisted home ownership in GCU area, with most of the home ownership being market and a small number supported, which means that around 66% of households are likely to live in a market house that they own (with or without a mortgage).

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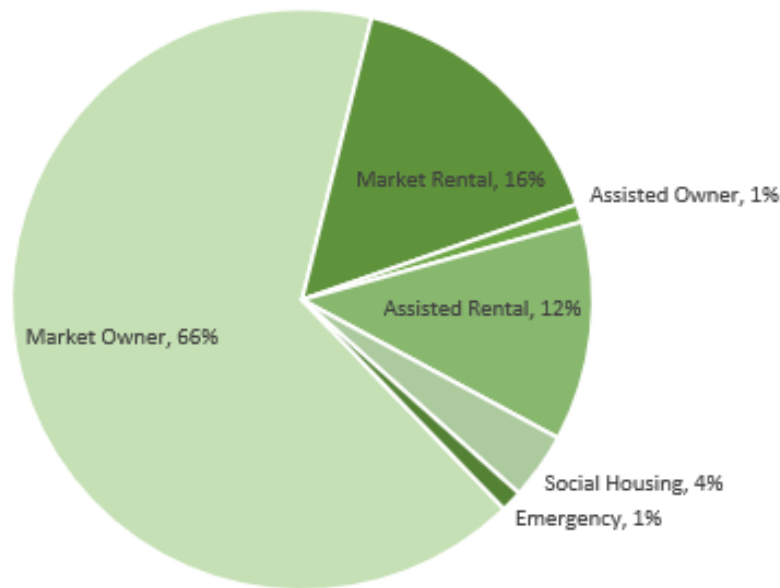
<sup>45</sup> Ministry of Housing and Urban Development (2021) Public Housing in 30 June 2021 Canterbury Region.

<sup>46</sup> Ministry of Social Development (2021) Number of Accommodation Supplements and the total net weekly rate for selected Regional Councils – released via OIA.

<sup>47</sup> Livingston and Associates Ltd (2021) Housing Demand and Need in Greater Christchurch.

<sup>48</sup> Livingston and Associates Ltd (2021) Housing Demand and Need in Greater Christchurch.

Figure 2.6: Distribution of Housing Continuum – Emergency, Social, Assisted, and Market



This assessment shows that more than 80% of households in the GCU area are living within a market based dwelling (either owning or renting), while less than 20% of households live in non-market houses (emergency, social or assisted). However, as many lower income households live within non-market dwellings it is expected that most changes in affordability outcomes for these households will be driven by policy decisions made around this part of the continuum. Specifically, if the government choose to build more social housing or provide greater assistance then affordability outcomes for lower income households would be greatly affected. Conversely, attempts to influence the market outcomes in the continuum, in terms of house sale price or rents, is likely to mostly impact households on medium incomes, who for the most part have less of an affordability issue than lower income households.

### 2.3 Summary of Dwelling Affordability

In summary there are a number of important aspects of dwelling demand and supply, which come together in combination to influence affordability. We consider that the following aspects are important and where possible we have included them within the modelling.

- ❖ **Developer Type:** it is not possible to model every type of developer. For this assessment we have collected data from each of the GCP councils to understand the average commercial developer. We consider that it would be valuable to assess other types of developers, however that is outside the scope of this project. We note that the data on the average commercial developer will provide a reasonable representation of most development activity. However, other types of developers, who are not modelled, will tend to provide more of the lower value dwelling types.



- ❖ **Build Costs:** the inflation of build costs has been assessed within the feasibility modelling work and has therefore been indirectly included within modelling.
- ❖ **Capacity:** each of the councils have provided their most recent assessments of capacity. However, it is acknowledged that planning processes around the MDRS and HDR intensification will result in changes in the coming months. Given the scale of the capacity that is currently enabled within the proposed policies we consider that most changes during this process will not be material to the modelling undertaken in this report.
- ❖ **Land Values:** the inflation of land values has been assessed within the feasibility modelling work and has therefore been indirectly included within modelling. However, we acknowledge that the up-zoning that is proposed for the MDRS and HDR intensification could result in increases in land values which is likely to be greatest for existing dwellings in the inner parts of the GCU area. The outcome could be that existing dwelling stock increases in value and hence becomes more unaffordable. We consider that this impact on land values may need to be assessed by councils, and feasibility modelling may need to be updated.
- ❖ **Household Preferences:** given the lack of data on household dwelling preferences it is not possible to model how they would react to different dwelling stock provisions that have been suggested in the GCP development pattern options. As noted above, it is likely that enabling dwellings within different locations and typologies would result in changes in demand patterns. This could have further impacts on the market and dwelling affordability beyond what is modelled in this research.
- ❖ **Household Budget:** household budget can be reasonably estimated in terms of income, and these aspects are included in the modelling. The wealth aspect of the household budget cannot be estimated.
- ❖ **Housing Continuum:** in order to understand the full range of dwelling affordability the modelling would need to include the entire continuum of housing options that are available. The available information can provide an understanding of most dwellings that are available for the 'market' parts of the continuum. However, there is limited data on the other parts of the continuum. As such these aspects are not modelled in this assessment.

### 3 Current Dwelling Affordability

The second step in the research was to draw from available data to understand the current housing market, including a discussion of dwelling stock, price points, and affordability outcomes. The objective of this assessment is to provide a reference point from which the modelling is based.

It is acknowledged that the situation in the market is changing rapidly and that the datasets used within this assessment may become out of date. However, this situation is common in most research that relies on data collected at a point in time. Rather than relying solely on historic data, this assessment and report has undertaken an estimate of the current outcomes for June 2022, which provides the most up to date and best understanding of the situation.

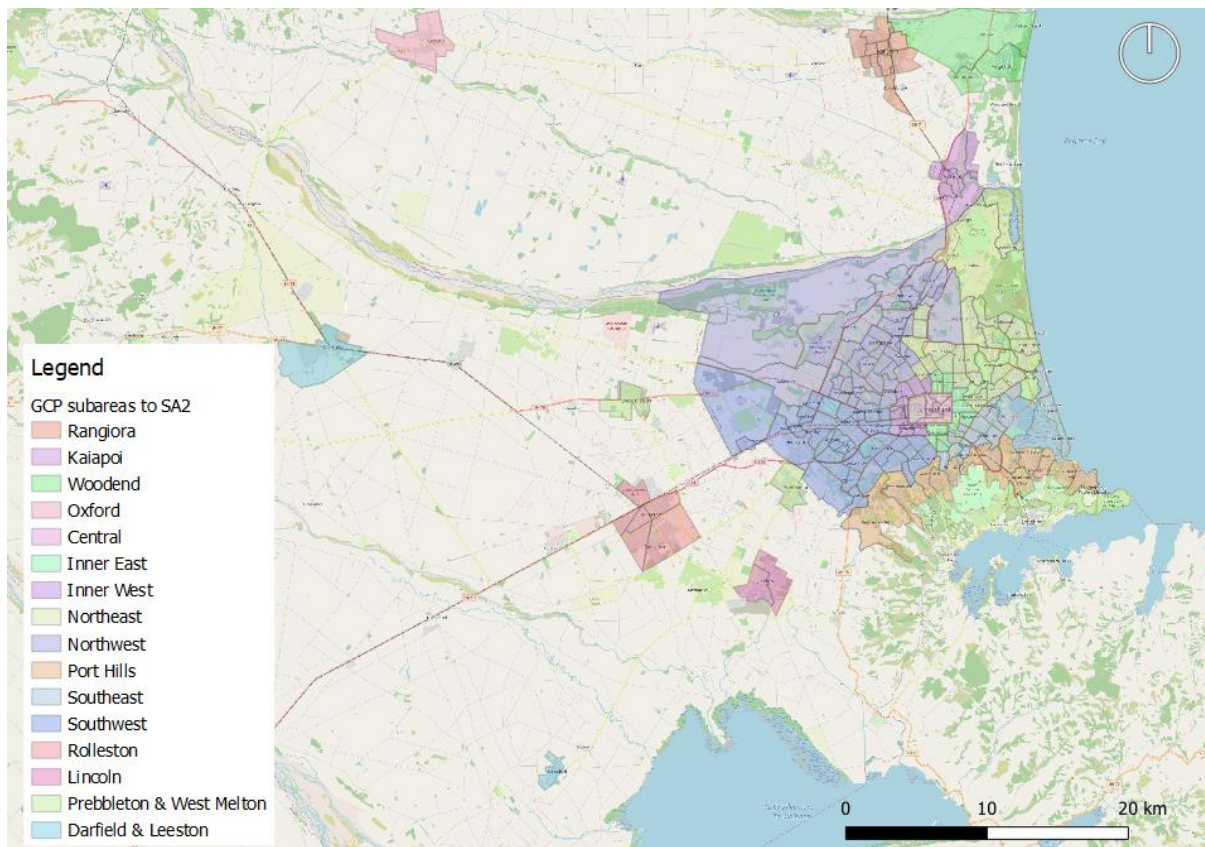
The following assessment provides an estimate of current (2022) affordability outcome across the GCP, which will form the baseline of the qualitative model that is discussed later in this report. The assessment covers the urban areas within Greater Christchurch metropolitan area, which includes satellite towns to the north<sup>49</sup> and south<sup>50</sup> of the main urban area. This spatial extent was set by the GCP which was defined in terms of sixteen “sub-areas”, defined as groupings of SA2s, as shown in Figure 3.1.

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<sup>49</sup> Waimakariri townships Rangiora, Kaiapoi, Woodend and Oxford.

<sup>50</sup> Selwyn townships Rolleston, Lincoln, Prebbleton, West Melton, Darfield and Leeston.

Figure 3.1: Greater Christchurch Urban Area



### 3.1 Dwelling Stock

For this assessment dwelling stock has been estimated using council,<sup>51</sup> census,<sup>52</sup> and building consent<sup>53</sup> data. An estimation is required as there is no way to accurately establish the number of dwellings without undertaking a physical field survey of the dwelling stock, which will not be completed again until 2023 Census.

Based on the best available data it is considered that there are currently around 197,000 dwellings in the GCP urban areas. Standalone dwellings dominate (80% of total stock), with less than 20% being multi-unit dwellings (units, townhouses and apartments). Approximately 160,000 dwellings (81%) are in Christchurch City, with almost 25% of Christchurch City dwellings being multi-units. The remaining dwellings are split relatively evenly between the townships in Selwyn (18,000) and Waimakariri (18,000). The townships have much smaller shares of multi-unit dwellings, at only 4% in Selwyn and 10% in Waimakariri.

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<sup>51</sup> Christchurch City Council, Selwyn District Council and Waimakariri District Council have provided data on the residential activities within each District. This data varies in terms of spatial unit (landholding and rateable property) and time. These differences have been accounted for the estimation of dwellings.

<sup>52</sup> Statistics New Zealand (2018) Census of Population and Dwellings.

<sup>53</sup> Statistics New Zealand (2022) Residential Building Consents.

**Figure 3.2: Greater Christchurch Urban Existing Dwelling Stock by Typology and Sub-area (2022)**

Sub-Area		Standalone	Multi-Unit	Total
Waimakariri	Rangiora	6,804	1,114	7,918
	Kaiapoi	4,866	605	5,471
	Woodend	3,832	132	3,964
	Oxford	932	53	985
Christchurch City	Central	1,514	3,842	5,356
	Inner East	7,076	7,774	14,850
	Inner West	5,186	4,469	9,655
	Northeast	26,402	4,296	30,698
	Northwest	29,310	6,327	35,637
	Port Hills	12,014	1,508	13,522
	Southeast	12,026	3,311	15,337
	Southwest	29,599	5,745	35,344
Selwyn	Rolleston	9,417	310	9,727
	Lincoln	3,489	180	3,669
	Prebbleton & West Melton	2,548	76	2,624
	Darfield & Leeston	2,092	129	2,221
<b>Greater Christchurch Urban</b>		<b>157,106</b>	<b>39,872</b>	<b>196,978</b>

This baseline situation is important because dwellings have a long life, which means that over the coming decades most of the dwellings that will be available in the market are already built. Even in the high-growth GCU area, the new dwellings that will be built over the coming three decades will only represent a small share of dwelling stock at any point in time. This means that over two-thirds of the stock which will be available to the community in the future has already been built, which naturally influences the price points of dwelling stock in the future. That is, there is considerable inertia which would need to be overcome to achieve any meaningful change in future price points, given the incremental creation of new dwelling stock.

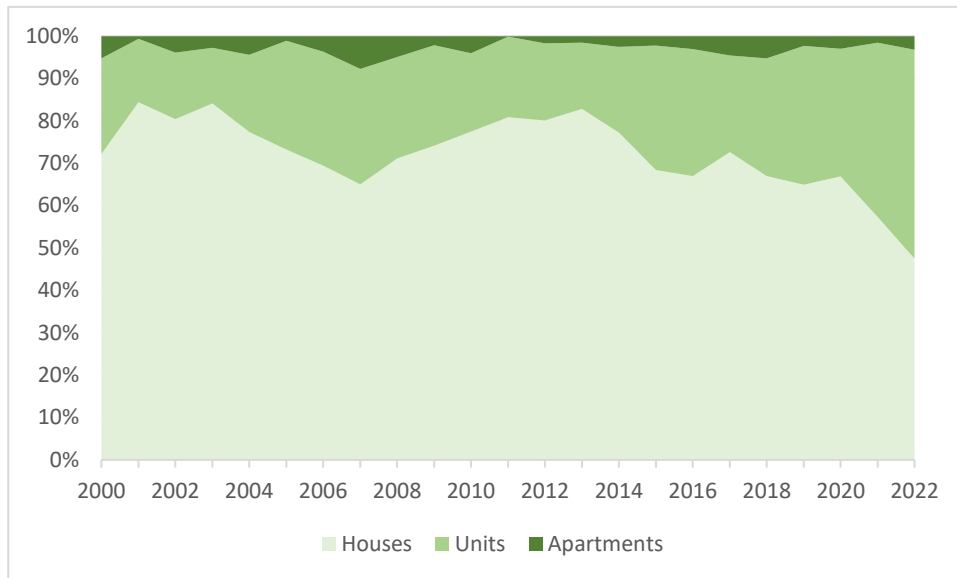
Notwithstanding this inertia at a total quantum level, there has been a significant shift in the types of new dwellings that have been consented in the GCU area over the last decade.<sup>54</sup> In 2010 approximately 77% of the new dwellings consented were traditional standalone houses and 23% were multi-unit. In 2018 the ratio had shifted to 67% standalone and 33% multi-unit, and in 2021 the ratio had shifted further to 57% standalone and 43% multi-unit. While not a complete year, the most recent consents data for 2022 suggests that move towards multi-unit dwellings may have continued, with consents so far this year being 47% standalone and 53% multi-unit. This shift means that there is an increasing diversity of dwelling types in the GCU area.

Although multi-unit dwellings are becoming increasingly popular, building consents data indicates that not many new apartments have been built in the GCU area, with less than a few hundred being

<sup>54</sup> Statistics New Zealand (2022) Residential Building Consents.

consented every year. This typology of dwelling has not been important for the GCU area, however this is expected to change in the coming decades as price points reach sufficient levels for this type of development to be feasible.

**Figure 3.3: Greater Christchurch Urban Dwelling Building Consents by Typology (2000-2022)**



### 3.2 Dwelling Price Points

For this assessment dwelling price points have been estimated using council valuation data<sup>55</sup>, sales data<sup>56</sup> and other available sources<sup>57</sup>. An estimation is required as there is no way to accurately establish the price points of all residential dwellings in the GCU area without commissioning registered valuation of the dwelling stock, which would be prohibitively resource intensive.

The last official valuations were undertaken in August 2019 for Christchurch City and Waimakariri, and September 2021 for Selwyn. Since then, the market has shifted considerably, with the official valuations being lower than the sale prices that are being achieved in the market. Figure 3.4 below shows dwelling sale prices for each of the three councils and the valuation date indicated.<sup>58</sup> The figure shows the large shift that has occurred since 2019 valuation date and the smaller shift since the 2021 valuation date.

The difference between valuations and sale prices is greatest in Christchurch City and Waimakariri District where dwellings are selling for around 50% more than the government valuations, which

<sup>55</sup> Christchurch City Council, Selwyn District Council and Waimakariri District Council have provided data on the rateable values.

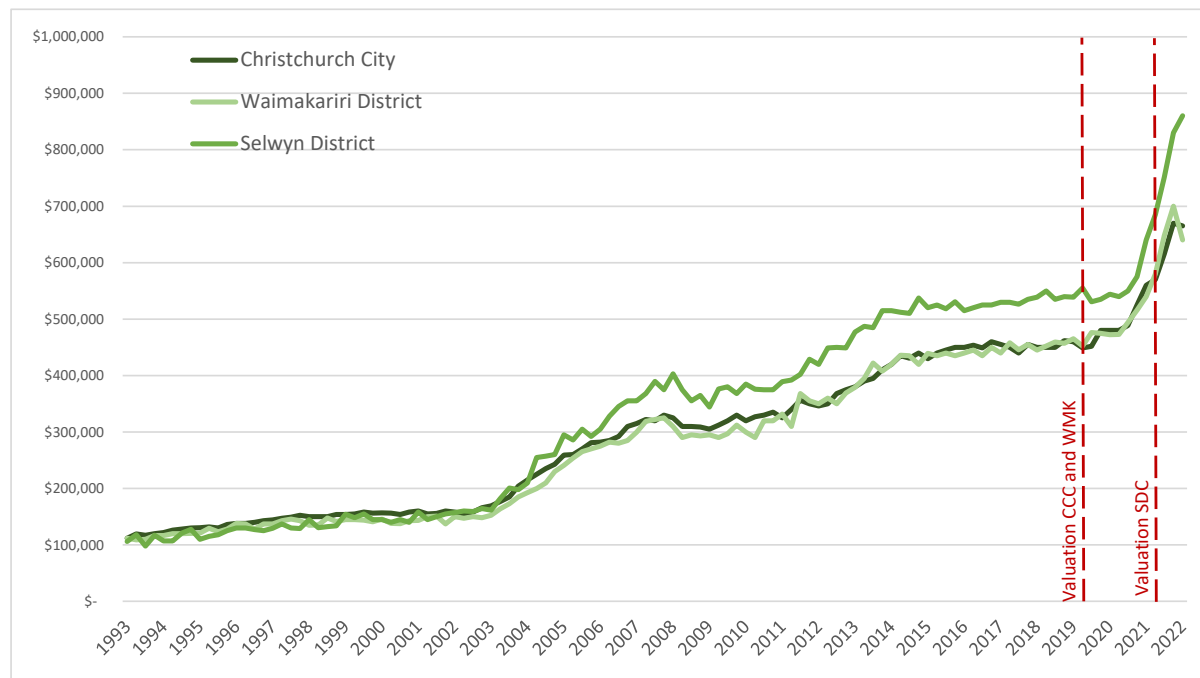
<sup>56</sup> Quotable Value (2022) Residential Sales Data.

<sup>57</sup> Ministry of Housing and Urban Development (2022) Urban Development Dashboard.

<sup>58</sup> Ministry of Housing and Urban Development (2022) Dwelling Sales Prices (actual).

reflects the longer time since the valuations were conducted. The difference is smaller in Selwyn, with dwellings selling for around 10% more than government value.

**Figure 3.4: Greater Christchurch Urban Dwelling Sale Prices (1993-2022)**



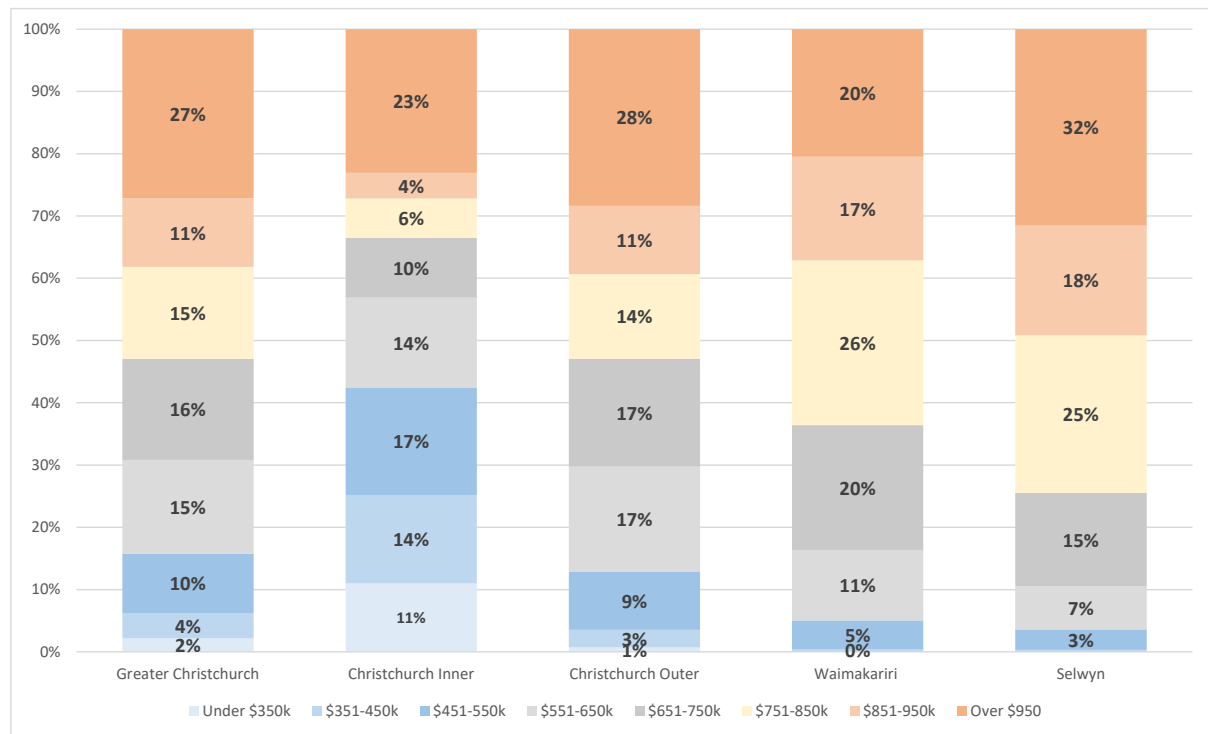
For this assessment we have reviewed sales data at a property level and then compared them to government valuation. This data is then used to calculate the average shift for each SA2. For Christchurch the variation (the amount by which the sales price exceeds valuation) across the SA2s ranges from a low of 40% to a high of 65%, and an overall average of 52%. The variation between valuation and sales data tends to be lower in the inner suburbs and higher in the outer suburbs. For Waimakariri the variation is consistent, with most areas being close to the average of 55% higher sale price than government valuation. For Selwyn the variation between valuation and sales data is lower in the growth areas (Rolleston at 6%) and higher in the areas which have experienced less growth (8-15%)<sup>59</sup>, with an overall average of 10%. This difference in sales price changes may reflect the greater amount of supply that has been enabled in Rolleston, which has tempered price inflation in this location.

The baseline price points for 2022 dwelling stock have been estimated at a dwelling unit level, using the government valuation for each dwelling unit and then factored forward to 2022 using the average sales price to government valuation ratio in each SA2.

<sup>59</sup> Lincoln, Prebbleton, West Melton, Darfield and Leeston.

Figure 3.5 shows a summary of the estimated dwelling price points for GCU areas in 2022.<sup>60</sup> Currently, there is estimated to be around 6% of the dwelling stock valued at under \$450,000 and a further 10% of the dwelling stock between \$450,000 to \$550,000. More than half of the dwellings are at price points over \$750,000 (53%). The remaining third have an estimated price point of \$550,000 to \$750,000. Compared to other high growth urban areas in New Zealand (i.e. Auckland, Queenstown, Tauranga and Waikato), the price points in GCU are somewhat lower.

**Figure 3.5: Greater Christchurch Urban Estimated Dwelling Price Points 2022**



The estimated dwelling price points within GCU area shows the following structure:

- ❖ Christchurch Inner<sup>61</sup> has the largest share of lower price point dwellings in the GCU area, with 42% of dwellings under \$550,000.
- ❖ Christchurch Outer<sup>62</sup> has a distribution of price points that is broadly similar to the overall GCU area.
- ❖ Waimakariri has the largest share of medium price point dwellings in the GCU area, with 47% of dwellings being in the range of \$650,000 to \$850,000.

<sup>60</sup> The Price Point groupings shown in this memo and the DPPM were defined by GCP as the key ranges for understanding affordability.

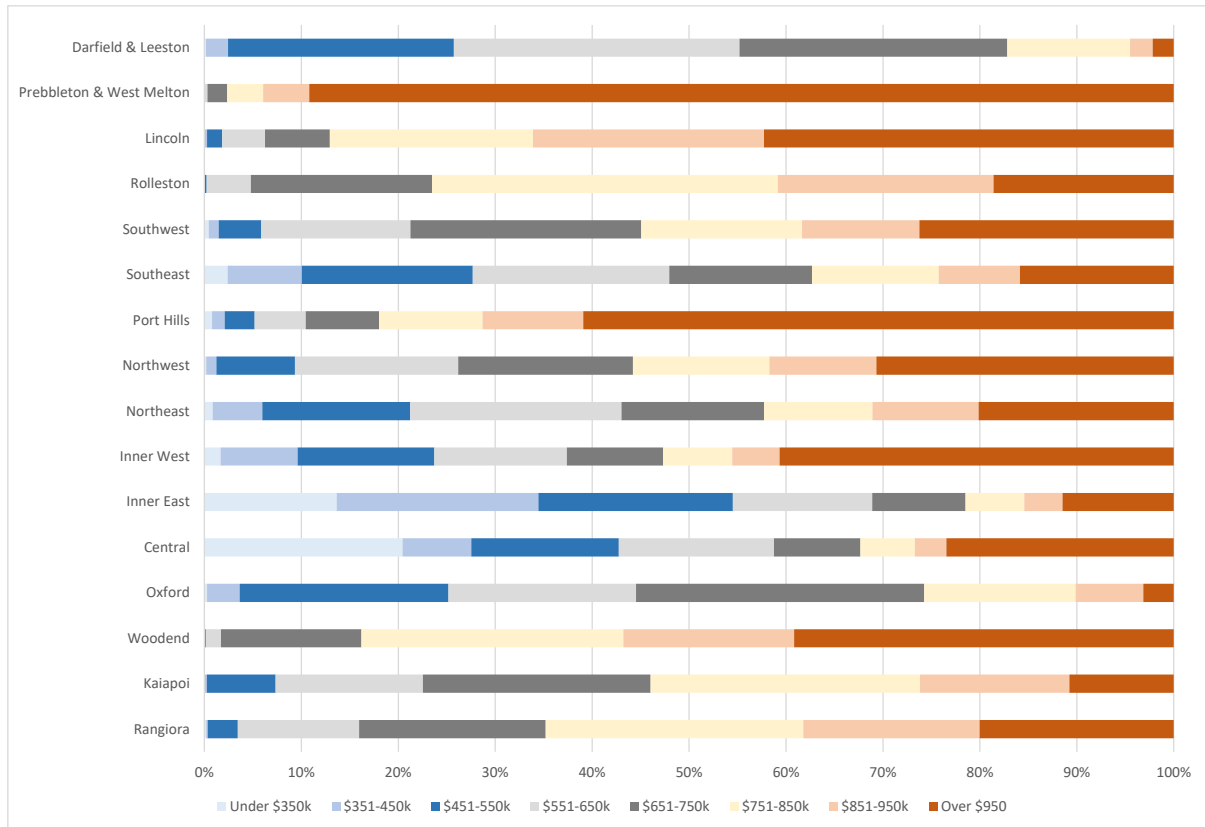
<sup>61</sup> Combination of Christchurch Central, Inner East and Inner West.

<sup>62</sup> Combination of Christchurch Northeast, Northwest, Port Hills, Southeast and Southwest.

- ❖ Selwyn has the smallest share of lower and medium price point dwellings in the GCU, with only a quarter of dwellings being under \$750,000.

There is variation between the subareas within the GCU, which are displayed below. The differences are not discussed further in this report.

**Figure 3.6: Greater Christchurch Urban Estimated Dwelling Price Points 2022 – by subareas**



Price Points 2022		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	Total
Sub-Area		\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	Total	
Waimakariri	Rangiora	-	12	246	994	1,525	2,106	1,443	696	338	158	399	7,918	
	Kaiapoi	-	12	388	832	1,286	1,521	844	323	74	47	144	5,471	
	Woodend	-	-	6	62	575	1,071	698	462	282	135	674	3,964	
	Oxford	-	33	213	191	293	154	69	16	-	-	15	985	
Christchurch City	Central	675	434	927	966	531	333	187	175	99	64	964	5,356	
	Inner East	1,940	3,129	3,004	2,149	1,434	902	587	347	255	193	911	14,850	
	Inner West	160	769	1,362	1,320	958	688	472	348	295	329	2,955	9,655	
	Northeast	254	1,572	4,689	6,692	4,516	3,433	3,362	2,391	1,377	631	1,781	30,698	
	Northwest	66	372	2,886	6,009	6,420	5,018	3,930	3,047	1,699	1,267	4,923	35,637	
	Port Hills	84	177	422	715	1,028	1,447	1,409	1,557	1,200	1,240	4,243	13,522	
	Southeast	233	1,211	2,754	3,138	2,269	2,010	1,290	845	573	265	750	15,337	
Southwest	96	366	1,564	5,462	8,433	5,866	4,278	3,290	2,813	1,316	1,860	35,344		
Selwyn	Rolleston	-	2	20	444	1,817	3,471	2,163	944	454	208	202	9,727	
	Lincoln	-	10	58	162	245	768	874	844	300	144	263	3,669	
	Prebbleton & West Melton	-	-	1	6	54	97	125	234	395	587	1,125	2,624	
	Darfield & Leeston	-	51	518	655	614	281	52	24	3	-	22	2,221	
<b>Greater Christchurch Urban</b>		<b>3,508</b>	<b>8,149</b>	<b>19,058</b>	<b>29,796</b>	<b>31,999</b>	<b>29,167</b>	<b>21,783</b>	<b>15,544</b>	<b>10,157</b>	<b>6,585</b>	<b>21,230</b>	<b>196,978</b>	



### 3.3 Affordability Outcomes

For this assessment we have adopted the affordability definition that was applied in earlier research undertaken for GCP,<sup>63</sup> where dwellings are “affordable” if households spend no more than 30% of their gross household income on housing. While it is acknowledged that the issue of affordability is wider than income and housing costs, this metric is commonly adopted in most research on affordability, and that GCP definition is standard, being used by government<sup>64</sup> and many other non-government organisations<sup>65</sup>.

We note that the previous research also measured “Housing Need”, which is a measure of the total number of households within a community that require some assistance to meet their housing requirements. This includes different groups of households and includes ‘stressed private renter’ households, those households whose housing requirements are met by social, third sector and emergency housing; and people who are homeless or living in crowded dwellings. We do not repeat this assessment, however note that actions by government and community groups to meet the “Housing Need” of lower income households is critically important.

We consider that housing affordability is an issue for everyone in the community, and that the definition adopted in this study focuses on the outcomes for households that have lower and middle incomes which covers the majority of the households in the community that face housing affordability concerns.

Finally, housing affordability is complex, with income and housing costs forming a component of whether housing is affordable or not, for a particular household. However, there is very little data on household wealth, the mortgage repayments (or rents) households make, financial liabilities, government support, and stability of employment. All of these elements can greatly influence whether a household can afford a dwelling or not.

For this report we have estimated the income distribution for households in 2022 and the dwelling prices points which would be affordable, which provides a distribution of housing affordability in 2022.

We note that household incomes are not recorded in any official data set, which means that an estimate must be made using a range of data sets.<sup>66</sup> The income distribution for households has been

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<sup>63</sup> Community Housing Aotearoa and Perrot Consulting (2020) Greater Christchurch Partnership Social and Affordable Housing Action Report.

Livingston and Associates Ltd (2021) Housing Demand and Need in Greater Christchurch.

<sup>64</sup> Ministry of Housing and Urban Development (2018) Housing Affordability Measure Method version 1.4.

<sup>65</sup> Church Leaders of New Zealand (2017) Church Leaders Statement on Housing.

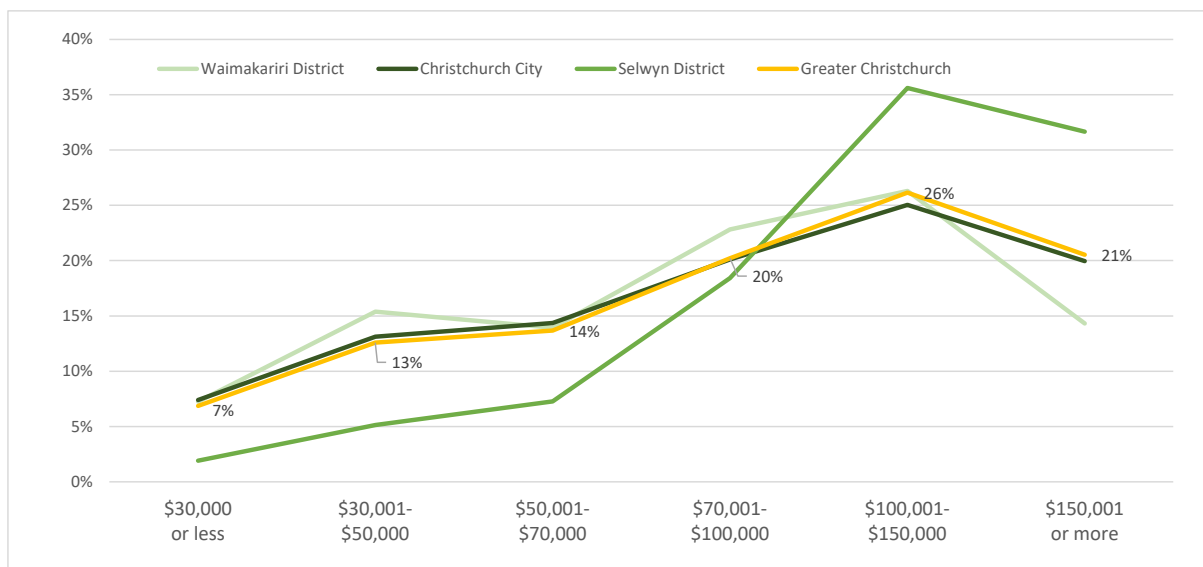
<sup>66</sup> The household income has been estimated using the best available data, and it can be expected that actual household incomes will be marginally different. However, we consider that the likely difference will not be material to the overall findings of this report.

estimated in the GCU area using Census 2018 distributions<sup>67</sup>, IRD income data<sup>68</sup>, Household Economic Survey data<sup>69</sup>, GCP estimates of household incomes in 2021<sup>70</sup>, 2022 labour market statistics<sup>71</sup>, and Xero small business salaries and wages 2022<sup>72</sup>. The census and IRD data is combined to estimate the distribution of incomes in 2018, that data is then adjusted using the Household Economic Survey and GCP incomes data to provide an estimate of incomes in 2021. Finally the 2022 income is estimated using the Labour Market Statistics and Xero data.

The 2018 Census recorded a median household income of \$74,000 for Christchurch, \$79,000 for Waimakariri and \$103,000 for Selwyn. The estimation developed in this research suggests that median income per household in 2022 has reached \$91,000 for Christchurch, \$96,000 for Waimakariri and \$118,000 for Selwyn. In total the median income per household is estimated to have increased by over 20% since 2018, which is equivalent to 5% per annum.

Figure 3.7 shows the estimated income distribution for 2022. The results show that the share of households with income over \$100,000 has increased from almost 38% in 2018 to almost 47% in 2022. Households with incomes of \$30,000 or below have dropped from 18% in 2018 to almost 7% in 2022, while households with incomes \$70,000 to \$100,000 increased from 17% in 2018 to 20% in 2022.

**Figure 3.7: Greater Christchurch Urban Income Distribution 2022**



<sup>67</sup> Statistics New Zealand (2018) Census of Population and Dwellings.

<sup>68</sup> Inland Revenue Department (2021) Income distributions of customers.  
Inland Revenue Department (2021) Working for Families recipients.

<sup>69</sup> Statistics New Zealand (2022) Household Economic Survey – Gross Income.

<sup>70</sup> Livingston and Associates Ltd (2021) Housing Demand and Need in Greater Christchurch.

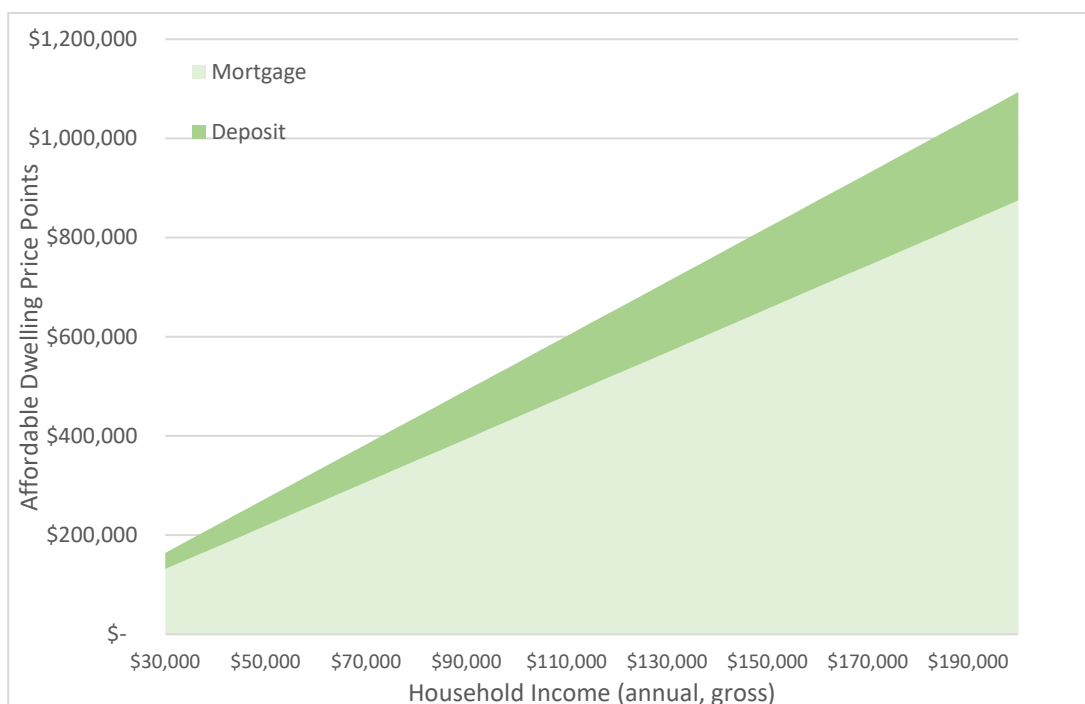
<sup>71</sup> Statistics New Zealand (2022) Labour market statistics: March 2022 quarter.

<sup>72</sup> Xero (2022) New Zealand small business wages and jobs up in May 2022, outpacing Australia and UK – 30 June.

Dwelling price affordability has been estimated using standard table mortgage repayment assumptions and the affordability definition. Specifically, we have calculated how much mortgage a household could afford for each income level. The table mortgage assumes current interest rate (5.56%)<sup>73</sup>, 30 year term, 20% deposit, and 30% of income is available to pay mortgage as defined in previous GCP affordability research.

Figure 3.8 shows dwelling price points which would be affordable for each level of household income. The figure shows that households with income under \$70,000 can afford dwellings under \$380,000. The households with income between \$70,000 to \$100,000 can afford dwellings up to \$550,000. Finally, households with income up to \$150,000 can afford dwellings up to \$820,000.

**Figure 3.8: Dwelling Price Point that are Affordability for each Level of Household Income**



Combining the dwelling price point data (Figure 3.5), income distribution of households (Figure 3.7), and the dwelling price affordability (Figure 3.8) the provides an understanding of current affordability in the GCU area. The affordability outcomes are presented in Figure 3.9.

First, affordability outcomes for low-income households are very poor. Households with incomes of \$30,000 or less can only afford a small mortgage which means they can only afford dwellings at price points below \$200,000. Almost all dwellings in GCU area are not affordable to this group – i.e. based on the existing dwelling price point distribution (and the distribution of new dwellings in the short term) it is clear that these households would not be able to afford many of the dwellings in the GCU

<sup>73</sup> Reserve Bank of New Zealand (2022) New standard residential mortgage interest rates (average % end of month).

area. This means that this 7% of households are likely to need support from government or social housing providers to meet their dwellings needs.

Second, households with incomes of \$30,000 to \$50,000 can afford dwellings at price points up to \$300,000, which takes in less than 2% of the dwelling in the GCU area. Households in this group would be likely to struggle to buy a dwelling in the GCU area, as there would be considerable competition for the small number of available dwellings (i.e. mismatch between supply of 2% and demand at 13%). While there may be some affordable options, it is likely that the bulk of the households in this group will need support from government or social housing providers in order to buy or rent a house.

Third, households with incomes of \$50,000 to \$70,000 can afford dwellings at price points up to \$400,000, which takes in less than 6% of the dwelling in the GCU area. As with the other lower income households, the households in this group would also struggle to buy a dwelling in the GCU area, as there would be considerable competition for the small amount of dwellings (i.e. mismatch between supply of 6% and demand at 14%). While there may be some affordable options, it is likely that many of the households in this group will need to rent a dwelling.

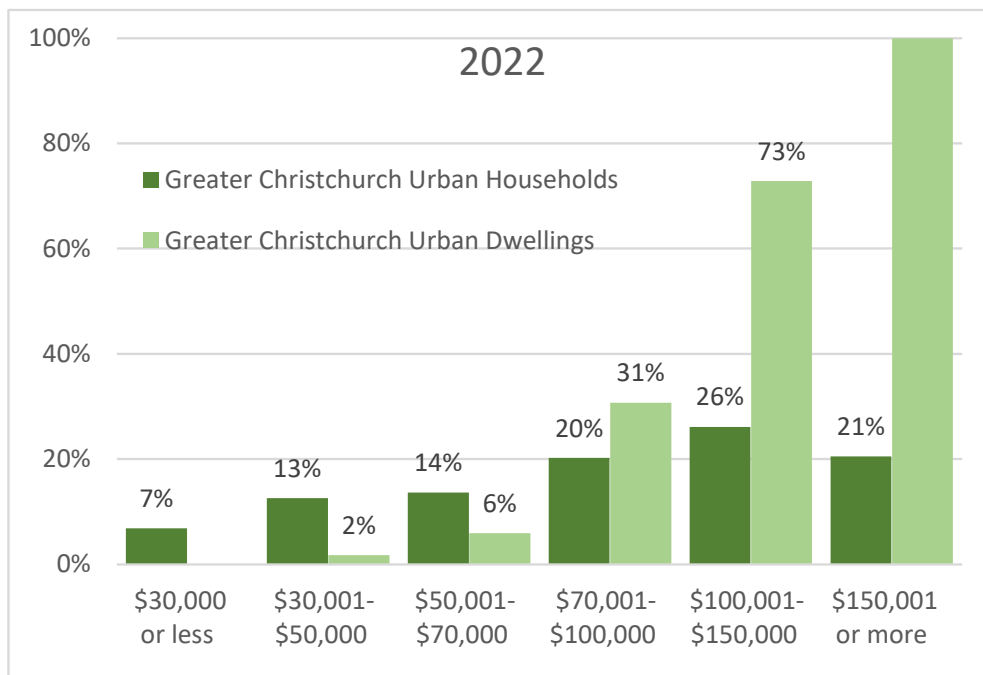
Fourth, households with incomes of \$70,000 to \$100,000 can afford dwellings at price points up to \$550,000, which takes in about 31% of the dwelling in the GCU area. While there may be many affordable options for this group, it is likely that some of the households will need housing from government or social housing providers or alternatively rent a dwelling.

Fifth, households with incomes of \$100,000 to \$150,000 can afford dwellings at price points up to \$820,000. Some 73% of dwellings in the GCU area are valued below that price, and it is likely that most households in this group will be able to afford a dwelling in the GCU area. However there will still be considerable competition and affordability will still be a concern to households in this group, and some in this group may choose to rent rather than buy a dwelling.

Sixth, the 21% of households with high incomes (over \$150,000) are not expected to have affordability issues and will be able to afford to choose from most of the dwellings in the GCU urban area.

Notably, households in each income band may also compete with households in lower income bands to purchase dwellings, and will be able to outbid lower income households if they are seeking to buy in the same price point, including, potentially, to purchase as investment properties. This will adversely affect housing affordability for lower income groups.

**Figure 3.9: Affordability Outcomes 2022 for each Level of Household Income**



### 3.4 Summary of Current Dwelling Affordability

Assessment of the current dwelling affordability outcomes for GCU area shows that there is a considerable group of households that would face poor housing affordability outcomes, and using a commonly accepted indicator of affordability where households should spend no more than 30% of their gross household income on housing indicates that there are very few dwellings at price points which would be affordable to lower income households.

While a large share of the households in the GCU area may not face poor housing affordability outcomes, particularly the 47% of households earning \$100,000+, it is clear that many in the community would struggle with housing affordability. This outcome is noted in earlier work by the GCP on housing affordability which concluded that there is a significant and ongoing need for government support.

The estimate of the affordability outcomes presented in this report shows that currently:

- ❖ Nearly 50% of households in GCU area have high enough income to afford most dwellings in the area and are not likely to face affordability issues.
- ❖ For the other half of GCU area households the small amount of dwelling stock available at affordable price points significantly limits options for buying a home. There will be some households in these lower income groups that have a significant asset base, which means that they may have less pressing housing affordability outcomes (i.e. some will have large deposit and can afford dwellings at a higher price point).

- ❖ The most significant affordability issue will be felt by the 5% of households with incomes under \$30,000, who cannot afford to buy any dwellings (notwithstanding their asset base), and by the 13% households that have incomes between \$30,000-50,000. Many of these households face severe housing affordability issues and are unlikely to be able to purchase a home in the current market.
- ❖ The 35% of households with incomes between \$50,000 and \$100,000 are also likely experience housing affordability issues, particularly given competition from households in higher income groups.

## 4 Policy Situation

The third step in the research was to establish the policy situation that influences affordability of dwellings, at the national and local level, which includes the proposed Spatial Plan and the three development pattern options. The goal of this assessment is to provide an understanding of the policy settings and to provide an understanding of the development options which are being considered by the GCP.

### 4.1 National Policy

The national policy settings can have significant influence on affordability and the housing market, both for the rest of New Zealand and the GCU area. The 'housing crisis' has resulted in consecutive governments implementing a range of national policy changes which have been intended to alleviate the issue. This includes policies that influence both demand and supply including those that:

- ❖ Direct intervention to provide new supply (Special Housing Areas, Kiwibuild, Kāinga Ora, etc).
- ❖ Encourage private developers to provide more supply (infrastructure funding, etc).
- ❖ Encourage community provides to supply more housing (increased capital support, etc).
- ❖ Order enquiries into the banking and building sector (Reserve Bank, Commerce Commission, Productivity Commission).
- ❖ Require councils to monitor and change local plans to provide more capacity for development activity (two National Policy Statements, Housing Enabling Act, coming Resource Management Act reform, etc.).
- ❖ Encourage demand for affordable dwellings (first home grants, Kiwisaver drawings, and allow interest deductibility for new build rentals.).
- ❖ Discourage demand for dwellings (restrict foreign investors, ringfencing losses on rentals, bright line capital gains rule, loan to value ratio, etc.).
- ❖ There are also a range of other policies that influences demand and supply for dwellings, such as migration, monetary policy, and building codes.

The following sections briefly outline some of these policies, which shows that the situation in the GCU area is heavily dependent on decisions at the national level. For the most part, the modelling in this report assumes that these setting do not change in the future. However, it is acknowledged that it is highly likely that national level government policy will continue to change and that this will influence affordability outcomes in the GCU area.

### 4.1.1 Macro Policy

There are a number of high-level policies that have significant direct impact affordability of housing in New Zealand. These policies are outside the control of the GCP and can have extremely important implications for housing affordability.

First, monetary policy is extremely important to housing affordability. The Reserve Bank of New Zealand (RBNZ) influences the cost housing directly via the setting of the Official Cash Rate (OCR) which results in changes to the interest rates that are charged by the retail banks for mortgages. The impacts of monetary policy on affordability is considerable, as this is a fundamental driver of the costs of home ownership. Over the last year the RBNZ has significantly increased the OCR and retail interest rates have doubled, with mortgage repayments increasing substantially. Depending on the mortgage size and term, many households will experience a 50% or greater increase in repayments which will greatly affect affordability for some households. Also the RBNZ has recently released research in which they conclude that monetary policy can be expected to trigger strong house price movements.<sup>74</sup> In summary, monetary policy has a significant influence on housing affordability, both in terms of housing costs and house price movements, and changes to this policy will impact outcomes in the GCU area.

Second, immigration policy has driven demand for housing in the past with record levels of migration coinciding with house price escalations. Covid19 and border restrictions have temporarily resulted in a sharp reduction of immigration to New Zealand.<sup>75</sup> Some economists have estimated that house prices could double if net migration returned to pre-Covid19 levels.<sup>76</sup> The government has directed the Productivity Commission to conduct an inquiry into what immigration settings could best facilitate long-term economic growth and promote the wellbeing of New Zealanders.<sup>77</sup> The Productivity Commission recently released its findings, one of which is that immigration settings in the past resulted in migration that exceeded the country's "absorptive capacity" which has impacted housing prices and affordability. The inquiry concluded that future migration should match the absorptive capacity, which would be lower than the past rate of migration.

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<sup>74</sup> Reserve Bank of New Zealand (2022) Housing Supply, House Prices, and Monetary Policy.

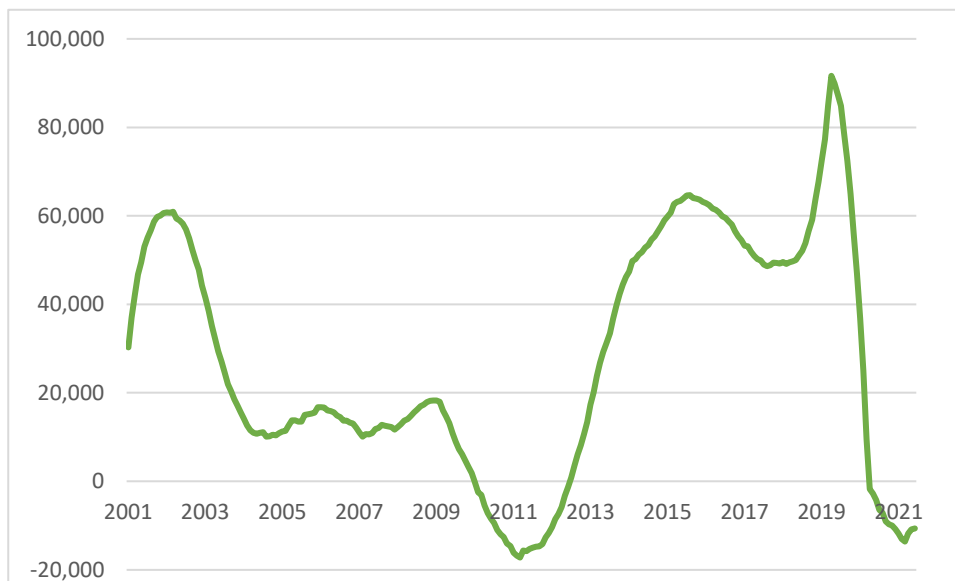
<sup>75</sup> Statistics New Zealand (2022) International Travel and Migration Estimated migration by direction and country of citizenship, 12/16-month rule (annual).

<sup>76</sup> ANZ (2021) How does immigration affect the New Zealand economy?

<sup>77</sup> New Zealand Productivity Commission (2022) Immigration – Fit for the Future.



Figure 4.1: New Zealand Net Migration 2001 to 2022



Third, taxation policy has also impacted outcomes in the housing market. Most recently the government has put in place tax policy that has impacted landlords (removing building depreciation as deduction, ring fencing losses, removing interest as deduction) and developers (bright line capital gains rule). These rules have changed the business model for suppliers of dwellings, with most landlords facing higher costs to supply housing to the community. However, the New Zealand tax system is still “very distortionary towards residential property” with no capital gains tax and “in places where use of the transport system is close to capacity, or where amenities are concentrated, the tax system is likely to lead to significant increases in land prices”.<sup>78</sup> Therefore, the potential introduction of a capital gains tax could be expected to significantly reduce the costs of land and dwellings. Moreover, the balancing of the tax system could be expected to result in the lowering of other taxes (income, GST, etc) which could improve households’ net position, particularly for lower income households and those who do not own property.

Fourth, the RBNZ financial stability (macroprudential) policy settings have also impacted housing affordability. The RBNZ has introduced a range of requirements, including Loan-to-Value ratio, stress test rates, and Debit to Income restrictions<sup>79</sup> as well as the responsible lending requirements,<sup>80</sup> all of which have greatly restricted the ability of households to take out a mortgage.

Fifth, the national building policy which is mostly covered in the Building Act<sup>81</sup> and other legislation (health homes regulations) also influences the costs associated with dwellings. The national policy

<sup>78</sup> Motu (2017) Housing, the ‘Great Income Tax Experiment’, and the intergenerational consequences of the lease.

<sup>79</sup> Reserve Bank of New Zealand (2021) Macroprudential policy and operating guidelines.

<sup>80</sup> Credit Contracts and Consumer Finance Act 2021.

<sup>81</sup> Building Act 2004.

defines the quality of housing that is compliant, which can result in changes in the costs of providing housing. These changes can be significant, for example requirements associated with insulation, seismic resilience, and climate change.

There are a range of other national policies that have impacted housing market and affordability. Some other important changes have included:

- ❖ enabling households to draw from Kiwisaver for house deposit<sup>82</sup>,
- ❖ restriction on foreign ownership<sup>83</sup>,
- ❖ public-private partnerships that provide affordable housing<sup>84</sup>,
- ❖ development enabled under the Covid19 fast track recovery policy<sup>85</sup>,
- ❖ new infrastructure funding tools to enable development<sup>86</sup>,
- ❖ housing and Infrastructure acceleration fund of \$3.8 billion to unlock developments.<sup>87</sup>
- ❖ decisions on investment in education (new schools, etc), health (hospitals, etc), and transport (public transport and roads) can influence the housing market and affordability.

In summary there have been many national policy changes, including in relation to monetary, immigration, taxation and macroprudential policies that have significantly implications for the housing market and affordability. These decisions and associated impacts are outside of the control of local councils or the GCP, however they are expected to have ongoing influence on the outcomes on the housing market in the GCU area.

#### 4.1.2 Kāinga Ora and Urban Development Act

Kāinga Ora (KO) was formed in 2019<sup>88</sup> as the main social housing provider and a national urban development agency. The agency has a wider range of goals than the previous government housing provider, with the objectives shifted from “providing housing in a business like manner”<sup>89</sup> to “contribute to sustainable, inclusive, and thriving communities”.

For the last five decades social housing has been run as a corporation (with profit motives) and the government did not allow the agency to directly intervene in the housing market. This model has failed to provide housing to meet the needs of the community, it is generally agreed that the market has

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<sup>82</sup> KiwiSaver (HomeStart) Amendment Act 2015.

<sup>83</sup> Overseas Investment Amendment 2018.

<sup>84</sup> Kiwibuild 2018.

<sup>85</sup> COVID-19 Recovery (Fast-track Consenting) Act 2020

<sup>86</sup> Infrastructure Funding and Financing Act 2020.

<sup>87</sup> New Zealand Government (2021) Government steps in to fund infrastructure for Auckland housing.

<sup>88</sup> Kāinga Ora - Homes and Communities Act 2019.

<sup>89</sup> Housing Corporation Act 1974.

failed, and that intervention is required. KO represents a significant change, with specific goals to house the community and to directly intervene in the market to provide affordable housing.

KO provides tenancy services to nearly 69,000 public houses across the country with assets worth nearly \$40 billion. KO is undertaking significant redevelopment of its stock, delivering nearly 7,000 homes in the past four and half years, the vast majority being newly build homes, and including public housing, affordable housing, homes for first home buyers and market housing of different types, sizes and tenures.

In 2020 the government passed the Urban Development Act (UDA) which extended the powers of KO, to include the ability to override planning rules, issue resource consents, compulsory acquire land, build infrastructure, and impose funding mechanisms. These powers are wide ranging and could allow KO to act more quickly on developments. KO has recently begun a process of assessing the first two potential areas where the UDA powers may be applied, with Specified Development Projects being assessed in Porirua (6,000 dwellings)<sup>90</sup> and Tauranga (up to 9,000 dwellings)<sup>91</sup>.

KO has partnered with others, including councils, government agencies, local government, Māori and mana whenua, infrastructure providers, private developers, and community housing providers, and considers that it will enable and complement, rather than compete with, the private market.

KO has only been created recently, but has already resulted in a significant shift from a corporate-focused to a community-focused model and an active role to intervene in the market. The scope and power of KO is much wider than previous government agencies, which will enable it to undertake developments that were not possible in the past, which may lead to its role increasing, both in its own right and in combination with partners. Given the goals of KO it is likely that the agency will provide a large, and growing, share of affordable housing in the future. KO decisions and associated impacts are outside of the control of local councils or the GCP, however they are expected to have ongoing influence on the outcomes on the housing market in the GCU area.

### 4.1.3 National Urban Development Policy

The government has also introduced a range of urban development policy which can be expected to impact housing markets in urban areas. This includes National Policy Statements, National Standards, the recent Housing Enabling Act, and proposed changes to the Resource Management Act.

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<sup>90</sup> Kāinga Ora (2022) Press release - *6,000 more homes possible for Porirua as Kāinga Ora considers using Urban Development Act provisions.*

<sup>91</sup> Kāinga Ora (2022) Press release - *New process considered for extensive urban development in Tauranga.*

First, the government introduced two consecutive National Policy Statements (NPS) on urban activity, NPS Urban Development Capacity<sup>92</sup> and NPS on Urban Development<sup>93</sup>. These statements require each council to research development capacity and demand within their jurisdiction, and where there is insufficient development opportunity the councils must act to enable more capacity. The NPSUD required councils to change District Plans to enable more intensification within main commercial areas and residential areas that are accessible to the centres (along with other changes – i.e. removal of carparking requirements). Recently the government passed legislation which brought forward the intensification requirements in the NPSUD and included a new MDRS zone.<sup>94</sup> The NPSUD and Housing Supply Act are expected to result in a considerable increase in plan enabled capacity in the GCU area, especially in Christchurch<sup>95</sup> although less so in Selwyn<sup>96</sup> and Waimakariri<sup>97</sup>.

Recently released government research suggests that the changes could result in a significant increase in dwellings developed over the coming five to eight years in the GCU area (+85% from MRDS alone).<sup>98</sup> While this impact seems inconceivably high, and it is difficult to rationalise how a policy change like this would increase demand so much, we consider that the intensification and MRDS zones that will be introduced will be likely to impact the nature of development and the location within the GCU area.

Second, the government has also introduced a set of National Planning Standards, which will be incorporated by every council in New Zealand.<sup>99</sup> These standards will be incorporated by Selwyn and Waimakariri in the ongoing District Plan Review processes, and Christchurch is implementing them via the intensification process (Plan Change 14). The standardisation of the planning frameworks in the GCU area can be expected to make development processes faster, reduce administration costs, and potentially help to reduce costs of housing.<sup>100</sup>

Finally, the government is reforming the Resource Management Act. This process will split the current policy into two separate acts, the Natural and Built Environment Act (NBA) and the Spatial Planning Act (SPA). The government has released exposure drafts of the NBA which outlined the purpose and some high-level provisions<sup>101</sup>. The government is planning to present the detail of the NBA and a draft of SPA in 2022, which will be subject to public feedback. This reform process is expected to change the national level urban planning framework, which is likely to have implications for GCU area.

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<sup>92</sup> National Policy Statement on Urban Development Capacity 2016.

<sup>93</sup> National Policy Statement on Urban Development 2020.

<sup>94</sup> Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021.

<sup>95</sup> Christchurch City Council (2022) PC14 Yield and Feasibility Assessment – version provided 7<sup>th</sup> July.

<sup>96</sup> Formative (2022) Selwyn Feasibility Assessment.

<sup>97</sup> Formative (2022) Waimakariri Feasibility Assessment.

<sup>98</sup> PwC (2022) The Medium Density Residential Standards under the Resource Management Act Estimates of development impacts at the Statistical Area 2 level.

<sup>99</sup> Ministry for the Environment (2019) National Planning Standards.

<sup>100</sup> New Zealand Treasury (2018) Regulation Impact Assessment – National Planning Standards

<sup>101</sup> Natural and Built Environments Bill Government Bill 2021.

The national urban development policy is currently in flux, with continuing changes over the last five years likely to result in associated impacts which are outside of the control of local councils or the GCP. These changes are expected to have ongoing influence on the outcomes on the housing market in the GCU area.

## 4.2 Local Policy

Local policy settings can also be expected to influence affordability and the housing market in the GCU area. Most importantly council policy can influence the land use and type of dwellings developed. Council policy can also influence development costs, either indirectly via consenting process (time costs) and directly via revenue collection (rates, development contributions, user pays) or requiring dwellings to include certain qualities (setbacks, carparking, additional noise insulation, etc).

### 4.2.1 Regional Policy

Territorial authorities in the GCU must give effect to the Canterbury Regional Policy Statement (CRPS) when forming their District Plans. The CRPS covers a range of topics, some of which will impact the housing market in the GCU area<sup>102</sup>.

Most relevant to this report is that Chapter 6 of the CRPS was varied in 2021 to take into account the GCP research on capacity and demand under the NPSUDC (Change 1).<sup>103</sup> This research identifies Future Development Areas, inserts associated policy provisions, and introduces dwelling targets for the GCU area. In summary, the CRPS has been changed to include dwelling targets and the updated settlement pattern (Map A)<sup>104</sup> provided guidance to the market on where and when new development areas would be opened for development. While not currently within the District Plans, this process provides more certainty about the future which can be expected to influence the housing market in the GCU area.

It is likely that other aspects of the CRPS will also influence where and when residential development can be expected to occur, as well as the cost of that development.

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<sup>102</sup> Environment Canterbury (2021) Canterbury Regional Policy Statement.

<sup>103</sup> Greater Christchurch Partnership (2019) Our Space 2018–2048: Greater Christchurch Settlement Pattern Update.

<sup>104</sup> Environment Canterbury (2021) Change 1 to Chapter 6 of the Canterbury Regional Policy Statement – Table 6.1.

## 4.2.2 District Plans

As discussed above, Christchurch City Council<sup>105</sup>, Waimakariri District Council<sup>106</sup>, and Selwyn District Council<sup>107</sup> are all undergoing planning processes that will significantly reform their district plans. These changes are wide ranging and will impact how land within the GCU area can be used.

For Selwyn and Waimakariri the District Plan Review process represent a once in a decade change, which the councils have been preparing for over the past five years. The recent requirements set out in the Housing Supply Act have impacted the review process and resulted in the councils needing to incorporate changes to meeting the intensification requirements. Both Waimakariri District Council<sup>108</sup> and Selwyn District Council<sup>109</sup> are expected to notify changes under new Intensification Streamlined Planning Process in August 2022 which will be followed by public submissions and hearings process. The change in plan enabled capacity is likely to be large for the main townships in Selwyn and Waimakariri, however the feasibility assessment<sup>110</sup> indicates that only a small share of this capacity will be commercial developable in the short-medium term.<sup>110</sup>

Christchurch City Council has released a draft plan change for the Intensification Streamlined Planning Process, which shows that District Plan provision will change for most of the residential land within the urban area. The scale of the change is significant, with plan enabled capacity being increased more than four-fold, with a large share expected to be feasible.<sup>111</sup> Also, while not yet assessed, it is expected that the District Plan provisions for commercial zones will also be changed to allow considerable new potential for residential development.

In total the amount of additional residential development capacity that will be enabled in the GCU area is likely to be much larger than the conceivable demands of the community over the coming three decades. This will potentially create a situation where development occurs haphazardly across the GCU area. The blanket application of large scale up-zoning across the GCU area creates a large opportunity for development, most of which will not be reasonably realisable over the coming three decades.

Finally, each council is expected to propose modifications to the intensification requirements to take into account Qualifying Matters. These changes may or may not impact the amount of capacity that

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<sup>105</sup> Christchurch City Council (2022) Plan Change 14 – Draft Housing and Business Choice.

<sup>106</sup> Waimakariri District Council (2022) Waimakariri District Plan Review.

<sup>107</sup> Selwyn District Council (2022) Selwyn District Plan Review.

<sup>108</sup> Waimakariri District Council (2021) What do the Government's new building intensification rules mean for the Proposed District Plan?

<sup>109</sup> Selwyn District Council (2022) Variation to Proposed Selwyn District Plan.

<sup>110</sup> Formative (2022) Selwyn Feasibility Assessment.

Formative (2022) Waimakariri Feasibility Assessment.

<sup>111</sup> Christchurch City Council (2022) PC14 Yield and Feasibility Assessment – version provided 7<sup>th</sup> July.

is enabled. However, given the scale of the proposed changes we consider that the changes are not likely to be material to the overall outcome.

In summary the District Plans in the GCU area are in flux, with considerable changes likely to be implemented in the coming months and years.

### 4.2.3 Spatial Plan

This Greater Christchurch Spatial Plan is being developed jointly, with GCP and central government, to give effect to the government's Urban Growth Agenda (UGA) and as an important step in progressing an Urban Growth Partnership (UGP) between central government and the GCP.<sup>112</sup> The GCP has been working with MHUD since March 2021 to develop the scope and project plan for the Greater Christchurch Spatial Plan project.

The objectives of the joint GC Spatial Plan work are to:

- ❖ Determine the most effective and appropriate urban form for GCU area to give effect to the strategic direction set through Greater Christchurch 2050, and therefore contribute to the vision and outcomes sought for GCU area.
- ❖ Align with the Government's UGA objectives and provide the basis for a joint work programme that would be delivered through an UGP for GCU area.
- ❖ Satisfy the requirements of the NPSUD for the GCU area, and jointly prepare a Future Development Strategy (which can be treated as part of a spatial plan) in time to inform 2024 Long Term Plans.
- ❖ Provide the basis for regional spatial planning that may need to be undertaken at the Canterbury level in the future by taking account the Resource Management Review Panel's recommendations for regional spatial strategy.
- ❖ Develop a shared, evidence based spatial view of the future of GCU area that better integrates land use and infrastructure, provides certainty about the future to guide and stimulate investment, and enables councils to undertake more detailed planning at the local level.

Currently there are three development pattern options which are being considered. The details of these options are outlined in the section 4.3, however it is important to note that the infrastructure requirements that would be required to enable each option are considerable and are likely to cost in

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<sup>112</sup> Greater Christchurch Partnership (2021) Greater Christchurch Spatial Plan Project.

the order of billions of dollars.<sup>113</sup> The differences between the infrastructure investments required would be expected to impact the housing market.

### 4.3 Development Pattern Options

The GCP has developed three development pattern options for accommodating the expected growth in the GCU area. As discussed in the introduction, the GCP developed these options to test the costs and benefits associated with different development patterns which would support the decisions around the Spatial Plan. The development pattern options are scenarios of the future (i.e. what if the spatial plan achieved development in the selected areas) and do not represent a forecast or projection.

For this report it is assumed that the Spatial Plan (and other policy settings) encourages development to meet the development patterns under each option. The three development patterns are treated as exogenous inputs into the affordability modelling and have not been reviewed by the authors of this report.

The three development pattern options were identified to provide an understanding of how different spatial allocations of growth might affect future outcomes for the community. The development patterns are defined in the model using data provided by GCP<sup>114</sup> and Christchurch City Council<sup>115</sup>. All three development patterns assume growth of around 66,000 dwellings over the coming three decades, with the GCU area growing from 197,000 today to just under 263,000 by 2051.

Broadly, the “Consolidated” development pattern option assumes that growth trends continue with increasing intensity of development (as has been observed recently), which can be viewed as the status quo future. Second, the “Compact” development pattern option assumes more multi-unit dwellings are developed within the central parts of the urban area, which represents a shift to compact living. Third, the “Dispersed” development pattern option assumes more standalone dwellings are developed on the edge of the urban areas, which represents a small shift away from compact living.

The modelling undertaken in this research allows the user to select the shares of dwellings by typology using four scenarios:

- ❖ **Demand-side:** this uses GCP’s demand assessment which predicts future dwelling demands by dwelling type.<sup>116</sup>

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<sup>113</sup> WSP, Aurecon, QTP (2022) GCSP Evaluation Framework – Stage 2 Evaluation Planned Transport interventions

<sup>114</sup> Greater Christchurch Partnership (2022) Dwellings by Subarea and Type (Standalone and Multiunit).

<sup>115</sup> Christchurch City Council (2022) Total Households by SA2 for Development Pattern Options.

<sup>116</sup> Livingston and Associates Ltd (2021) Housing Demand and Need in Greater Christchurch.



- ❖ **Recent Market:** uses the observed building consents between 2018 and 2022 as a guide to the recent market shares of dwellings by types.<sup>117</sup>
- ❖ **Supply-side:** uses the most recent assessments of feasibility development capacity to establish the share of potential supply of dwellings by types.<sup>118</sup>
- ❖ **GCP Scenario:** is a combination of the demand and supply side assessments.<sup>119</sup>

Figure 4.2 provides a summary of the outcomes for the “GCP Scenario” of dwelling types and the GCP development pattern, which shows that:

- ❖ A large share of growth would need to be accommodated in multi-units in Christchurch Inner and Outer if the Compact development pattern is to be achieved (large dark green bars). Across the entire GCU area 61% of new dwellings would need to be multi-units, which is a considerable shift from what has been achieved in the last decade.
- ❖ Across GCU area, the development patterns for both the Consolidated and Dispersed development patterns show similar outcomes for Selwyn and Waimakariri, with the main differences being observed in Christchurch Outer. Across the entire GCU a high share of new dwellings would be standalone under the Consolidated (82%) and Dispersed (86%) options, with low shares of multi-unit dwellings. These two development pattern options are similar to building consent trends observed in the early 2000s.

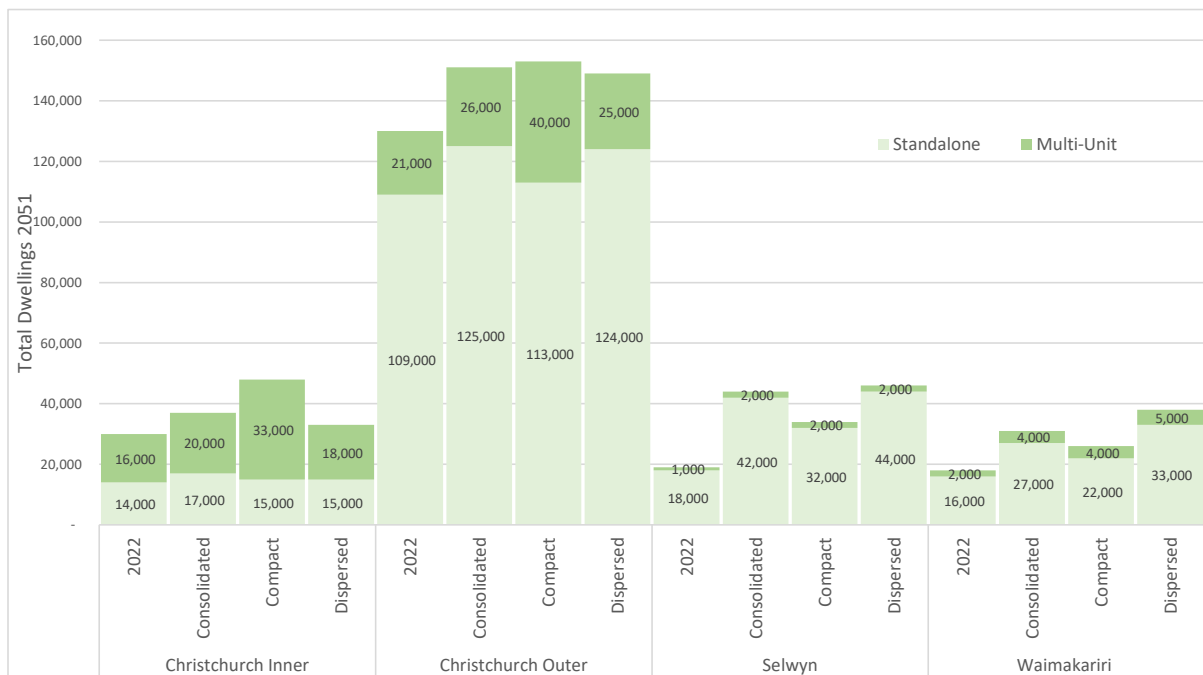
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<sup>117</sup> Statistics New Zealand (2022) Residential Building Consents.

<sup>118</sup> Christchurch City Council (2022) Christchurch Feasibility Assessment.  
Formative (2022) Waimakariri Feasibility Assessment.  
Formative (2022) Selwyn Feasibility Assessment.

<sup>119</sup> Greater Christchurch Partnership (2022) Development Pattern Options.

**Figure 4.2: Greater Christchurch Urban Area Dwellings – 2022 and 2051 Development Pattern**



The following subsections provide details on the distribution of dwellings across the subareas and the three development patterns options.

### 4.3.1 Consolidated Development Pattern

The Consolidated development pattern option would result in a small increase in multi-units in the GCU area and a large increase in standalone dwellings. Most of the growth would be located in Christchurch City, which is consistent with past development activity in the GCU area. The detailed results are shown in Figure 4.3.

For Christchurch City the following outcomes would occur:

- ❖ total dwellings increase to 191,000.
- ❖ multi-unit dwellings increase to 46,000 (or 24% of dwellings).
- ❖ standalone dwellings increase to 145,000 (or 76% of dwellings).
- ❖ Central would grow the most in percentage terms, with dwelling stock more than doubling and most of the dwellings would be multi-unit.
- ❖ Southwest would grow the most, in absolute terms, increasing by 7,500 dwellings and most of the dwellings would be standalone.
- ❖ The Northeast and Northwest would also be important areas, with approximately 10,000 new dwellings in these locations combined and they would mostly be standalone.
- ❖ The Inner East and west would accommodate a small amount of growth.

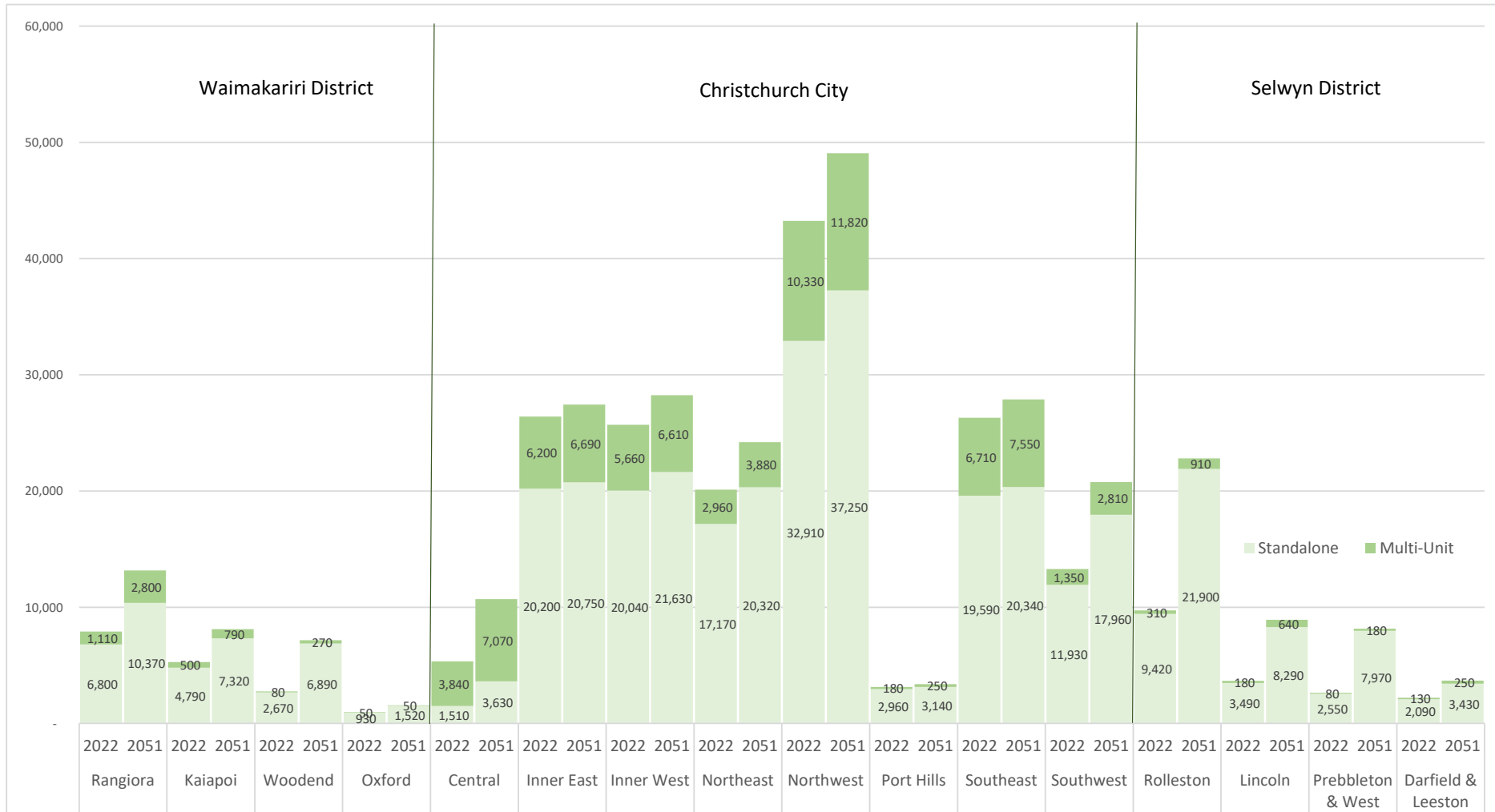
For the towns in Waimakariri the following outcomes would occur:

- ❖ total dwellings increase to 30,000.
- ❖ multi-unit dwellings increase to 4,000 (or 13% of dwellings).
- ❖ standalone dwellings increase to 26,000 (or 87% of dwellings).
- ❖ Woodend would grow the most, with dwelling stock more than doubling and most of the dwellings would be standalone.
- ❖ Rangiora would grow the most, in absolute terms, increasing by 5,300 dwellings and most of the dwellings would be standalone.
- ❖ Kaiapoi would also be important area, with approximately 2,900 new dwellings and they would mostly be standalone.

For the towns in Selwyn the following outcomes would occur:

- ❖ total dwellings increase to 44,000.
- ❖ multi-unit dwellings increase to 2,000 (or 5% of dwellings).
- ❖ standalone dwellings increase to 42,000 (or 95% of dwellings).
- ❖ Prebbleton and West Melton would grow the most, with dwelling stock more than tripling and most of the dwellings would be standalone.
- ❖ Rolleston would grow the most, in absolute terms, increasing by 13,100 dwellings and most of the dwellings would be standalone.
- ❖ Lincoln would also be important area, with approximately 5,300 new dwellings and they would mostly be standalone.

Figure 4.3: Greater Christchurch Urban Area Dwellings - Consolidated Development Pattern 2051



### 4.3.2 Compact Development Pattern

The Compact development pattern option would result in a large increase in multi-units in the GCU area and a small increase in standalone dwellings. More of the growth would be located in the inner parts of Christchurch City, which may be achieved through the implementation of new policy settings. The detailed results are shown in Figure 4.4.

For Christchurch City the following outcomes would occur:

- ❖ total dwellings increase to 204,000.
- ❖ multi-unit dwellings increase to 74,000 (or 36% of dwellings).
- ❖ standalone dwellings increase to 130,000 (or 64% of dwellings).
- ❖ Central would grow the most, with dwelling stock almost triple and a large share of new dwellings would be accommodated in this location (13%).
- ❖ Northwest would grow to accommodate 15,000 dwellings, however most of the dwellings would now be change multi-units.
- ❖ The Southeast and Southwest would also remain as important areas, however most of the dwellings would now be change multi-units.
- ❖ The Inner West would accommodate a larger share of growth, which would mostly be multi-units.

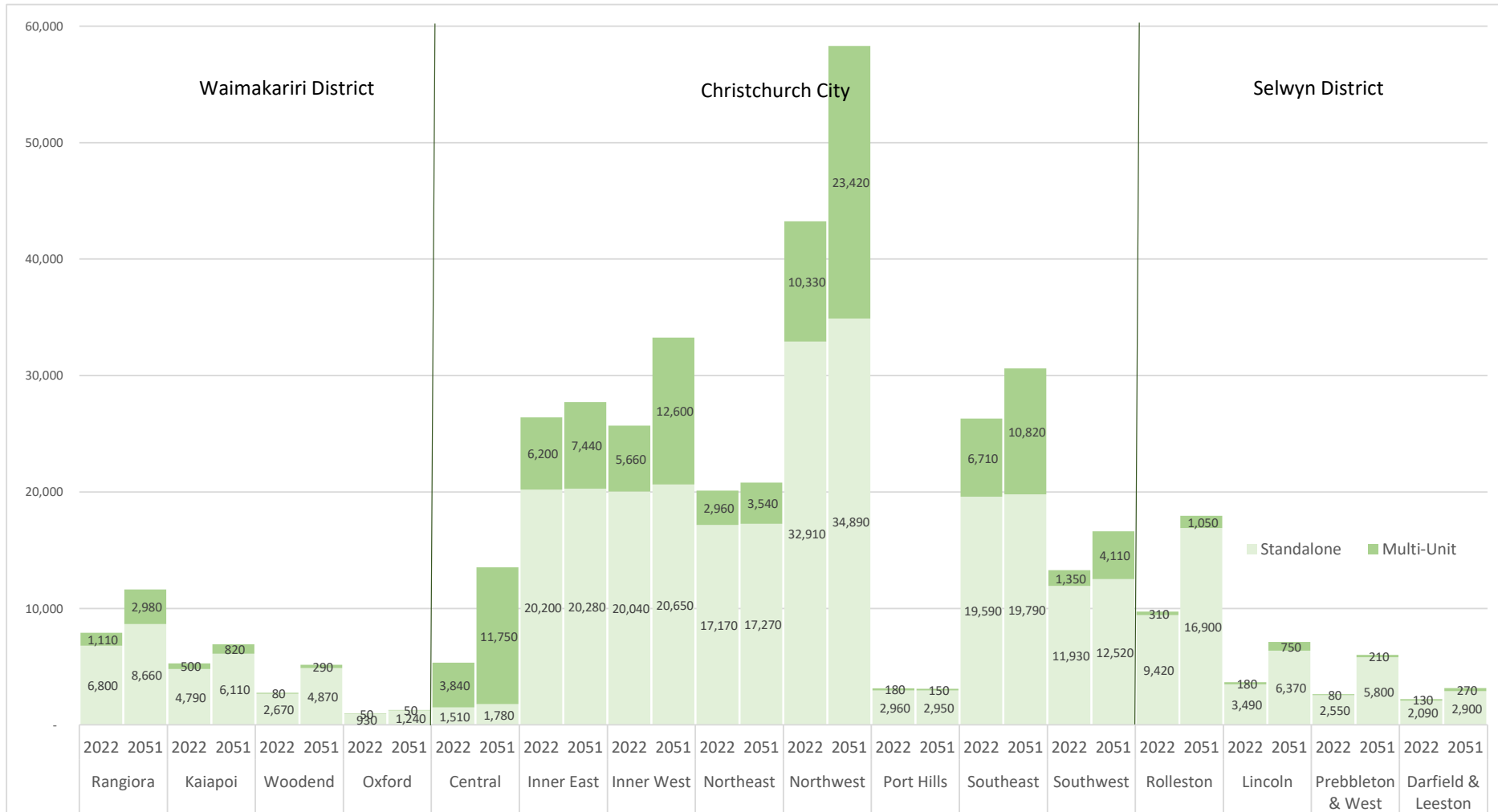
For the towns in Waimakariri the following outcomes would occur:

- ❖ total dwellings increase to 25,000.
- ❖ multi-unit dwellings increase to 4,000 (or 16% of dwellings).
- ❖ standalone dwellings increase to 21,000 (or 84% of dwellings).
- ❖ Woodend would grow the most, with dwelling stock increasing by almost double and most of the dwellings would still be standalone.
- ❖ Rangiora would grow the most, in absolute terms, increasing by 3,700 dwellings and half would be multi-units.
- ❖ Kaiapoi would also be important area, with less than 2,400 new dwellings and they would mostly be standalone.

For the towns in Selwyn the following outcomes would occur:

- ❖ total dwellings increase to 34,000.
- ❖ multi-unit dwellings increase to 2,000 (or 6% of dwellings).
- ❖ standalone dwellings increase to 32,000 (or 94% of dwellings).
- ❖ Prebbleton and West Melton areas would grow the most, with dwelling stock more than doubling and most of the dwellings would be standalone.
- ❖ Rolleston would grow the most, in absolute terms, increasing by 8,200 dwellings and most of the dwellings would be standalone.
- ❖ Lincoln would also be important area, with approximately 3,500 new dwellings and they would mostly be standalone.

Figure 4.4: Greater Christchurch Urban Area Dwellings – Compact Development Pattern 2051



### 4.3.3 Dispersed Development Pattern

The Dispersed development pattern option would result in a smaller increase in multi-units in the GCU area and a larger increase in standalone dwellings. More of the growth would be located in the outer parts of GCU area. The detailed results are shown in Figure 4.5.

For Christchurch City the following outcomes would occur:

- ❖ total dwellings increase to 184,000.
- ❖ multi-unit dwellings increase to 42,000 (or 23% of dwellings).
- ❖ standalone dwellings increase to 142,000 (or 77% of dwellings).
- ❖ Central would grow the most, with dwelling stock almost half and most of the dwellings would be multi-unit.
- ❖ Southwest would grow the most, in absolute terms, increasing by 9,700 dwellings and most of the dwellings would be standalone.
- ❖ The Northeast and Northwest would also be important areas, with approximately 5,000 new dwellings in each of these locations and they would mostly be standalone.
- ❖ The Inner East and west would accommodate a small amount of growth.

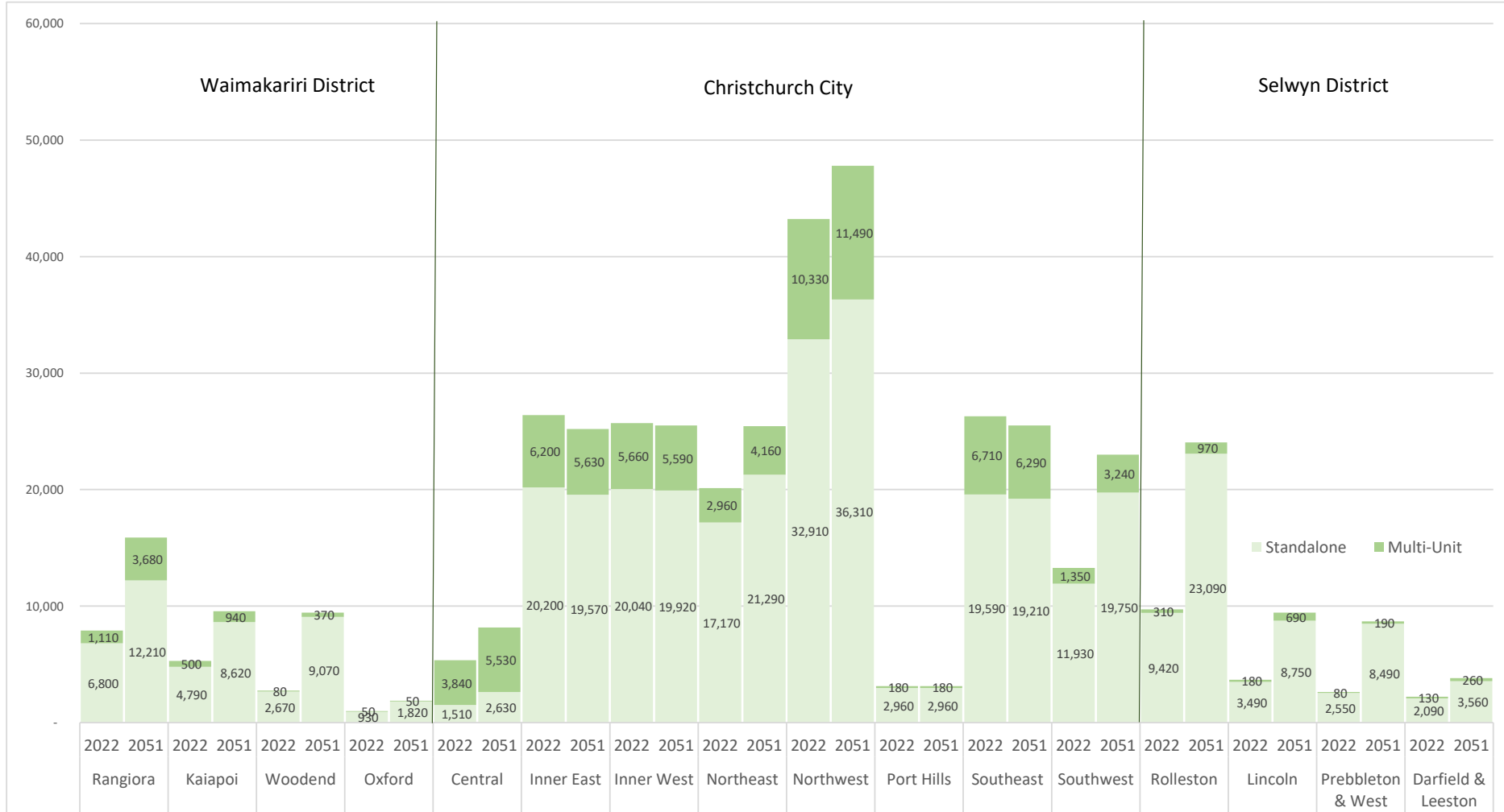
For the towns in Waimakariri the following outcomes would occur:

- ❖ total dwellings increase to 37,000.
- ❖ multi-unit dwellings increase to 5,000 (or 14% of dwellings).
- ❖ standalone dwellings increase to 32,000 (or 86% of dwellings).
- ❖ Woodend would grow the most, with dwelling stock more than tripling and most of the dwellings would be standalone.
- ❖ Rangiora would grow the most, in absolute terms, increasing by 8,000 dwellings and most of the dwellings would be standalone.
- ❖ Kaiapoi would also be important area, with approximately 4,300 new dwellings and they would mostly be standalone.

For the towns in Selwyn the following outcomes would occur:

- ❖ total dwellings increase to 46,000.
- ❖ multi-unit dwellings increase to 2,000 (or 4% of dwellings).
- ❖ standalone dwellings increase to 44,000 (or 96% of dwellings).
- ❖ Prebbleton and West Melton areas would grow the most, with dwelling stock more than tripling and most of the dwellings would be standalone.
- ❖ Rolleston would grow the most, in absolute terms, increasing by 14,300 dwellings and most of the dwellings would be standalone.
- ❖ Lincoln would also be important area, with approximately 5,800 new dwellings and they would mostly be standalone.

Figure 4.5: Greater Christchurch Urban Area Dwellings – Dispersed Development Pattern 2051





## 4.4 Summary of Policy Situation

In conclusion, there are several national and local policies that are likely to contribute to significant changes in the housing market in GCU area. The GCP is assessing one policy change through the new Spatial Plan, and that will operate within and in conjunction with a wider suite of policies to impact the housing market.

Following is a summary of key policies that will influence the housing market and affordability in the GCU urban area:

- ❖ **Monetary Policy:** is expected to drive considerable change in the housing market, with this macro policy is likely to impact affordability negatively via increasing interest rates. Conversely, the tightening of the monetary policy may also result in reduction in demand and an associated reduction in price points.
- ❖ **Immigration Policy:** post-Covid19 immigration settings are still yet to be established, however net-migration is starting to increase again with recent months showing small positive net inflows. If immigration returns to pre-Covid19 levels then there would be considerable pressures on the overall housing market, which may negatively impact affordability.
- ❖ **Taxation Policy:** may cause change in the future, especially if a capital gains tax is implemented, which would impact the tax incentives associated with home ownership and potential result in changes to income taxes.
- ❖ **Lending Policy:** has impacted the ability of households to both obtain a mortgage and increased the requirements around deposit. This outcome can lead to considerable impacts on the numbers of households that can afford to buy a dwelling and the overall housing market.
- ❖ **Building Policy:** there maybe changes to building policy, potentially with changes to account for climate change policy, and other changes in the quality of buildings. These can be expected to impact the cost of housing and the housing market.
- ❖ **Other National Policy:** as noted above there are a lot of other policies that are likely to impact the housing market. These include subsidies to first home buyers (Kiwisaver, First Home Grant, First Home Loans, etc), investment/funding mechanisms for infrastructure (Housing Acceleration Fund, etc), public-private partnerships (Kiwibuild, etc), and decisions on other government services (education, health, transport, etc).
- ❖ **Kāinga Ora Role:** KO has only recently been created, and now has substantial powers to intervene in the housing market. KO as a developer has unprecedented amount of capital,

landholdings, and wider range of objectives, which means that it is expected have considerably impact on the housing market.

- ❖ **National Urban Development Policy:** has continued to change at a rapid pace, the impacts of which will not eventuate for some years. At this time it is not possible to assess the impacts of the changes, however they are more or less outside the control of local councils.
- ❖ **District Plans:** are in a state of flux in the GCU area and are currently being changed to reflect national policy changes, leading to some uncertainty around the nature of land use policy, which will impact the local housing market for the near future.

Notwithstanding the range of other policies that will significantly impact the housing market in the GCU area, the Spatial Plan and the choice of development pattern option can be expected to have a significant influence on the housing market. This report has taken the latest information from GCP and the council partners, to extrapolate the three development pattern options to establish the location and nature of dwellings that could be developed if the options are achieved.

In summary the outcomes for the GCP development pattern options show that:

- ❖ For all three development pattern options (“Consolidated”, “Compact” and “Dispersed”) projected growth is for an additional 66,000 dwellings over the coming three decades, with the GCU area growing from 197,000 today to just under 263,000 by 2051.
- ❖ If the Compact development pattern is to be achieved, a large share of growth would need to be accommodated in multi-units in Christchurch Inner and Outer. Across the entire GCU area 61% of new dwellings would need to be multi-units, which is a considerable shift from what has been achieved in the last decade.
- ❖ The development pattern for the Consolidated and Dispersed development patterns both show similar outcomes for Selwyn and Waimakariri, with the main differences being observed in Christchurch Outer. Across the entire GCU a high share of new dwellings would be standalone under the Consolidated (82%) and Dispersed (86%) options, with low shares of multi-unit dwellings. Compared to new dwelling building consents, these two development pattern options are similar to rates that were observed in the early 2000s.

These three development pattern options are used as inputs to the modelling to understand the change in prices points that could be achieved and the affordability outcomes.

## 5 Affordability Assessment

The final step of the research was to quantify the affordability outcomes for the three development pattern options, using a static model that calculates the price points that can be expected in the future for all dwellings and the household incomes.

As noted above, there are many demand and supply aspects, and policy settings which significantly impact the housing market and affordability outcomes. The following model is static and does not attempt to estimate the potential implications of changes in these important aspects of the housing market. The model simply quantifies a 'what if' scenario of the future, where GCP is able to achieve the stated development patterns, and does not assess the impacts of changes to these other aspects of the housing market.

To be specific the modelling holds everything else static, which allows us to isolate the impacts of the development pattern options. However, we note that changes to aspects are likely to occur (i.e. interest rates, migration, etc) which can be expected to significantly impact the housing market and affordability. These impacts are not modelled in this report and would require separate research.

### 5.1 Model Structure

The following discussion outlines the model structure, data inputs, and assumptions that have been used to develop the modelling. The model was developed in two stages, the first being the Dwelling Price Point Model (DPPM), and the second being the Dwelling Affordability Model (DAM). The DPPM feeds into the DAM, which is the culmination of the research project.

The DPPM calculates the dwelling stock price points for 2051 for each of the development pattern options. In summary, the DPPM estimates the current dwellings and future dwellings price points separately. Figure 5.1 provides a graphical display of the model structure, data inputs, and assumptions.

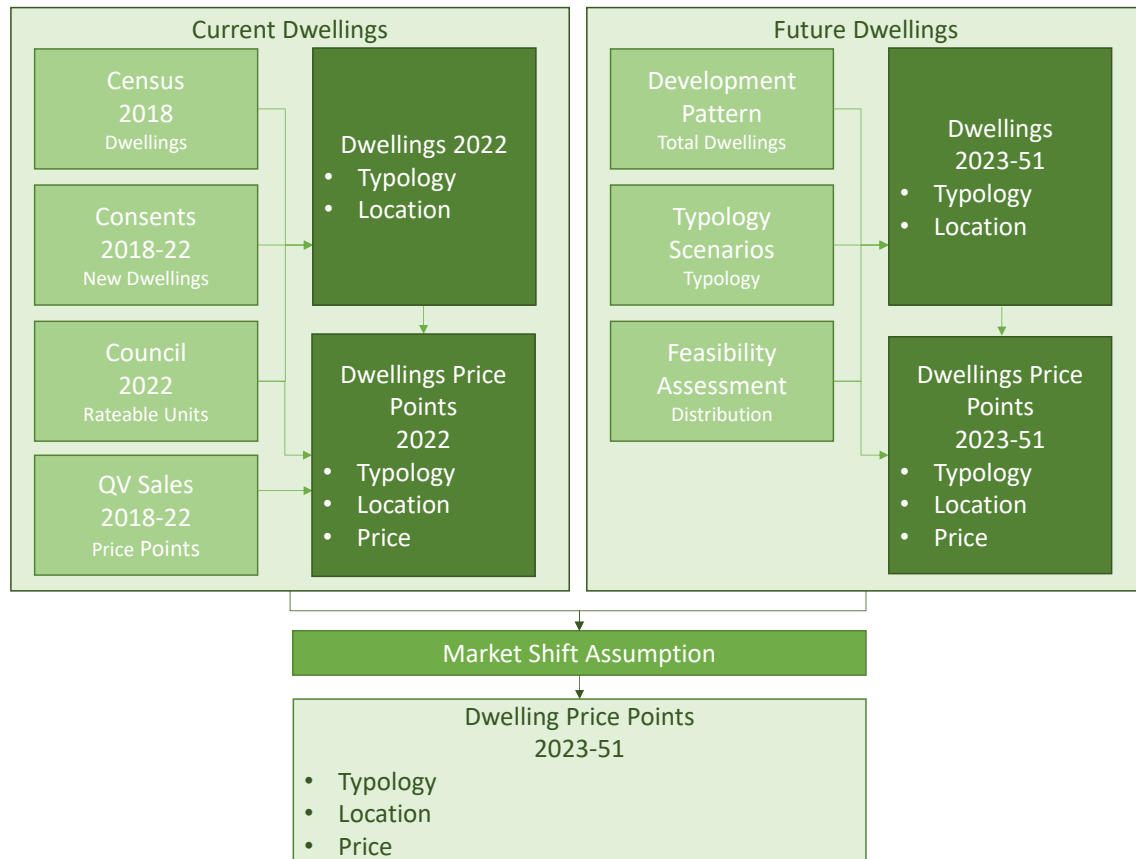
First, the current dwelling stock was estimated as described in section 3.1, and price points for existing dwellings were assessed as described in section 3.2 to provide a June 2022 baseline for the GCU area.

Future dwelling numbers are estimated for each year between 2023 and 2051, using the GCP development pattern options (section 4.3) and then split into types of dwellings according to the typology scenarios. This calculation provides an estimate of new dwellings by typology and location within the GCU area for each year between 2023 and 2051. The price points for the new dwellings

stock have then been calculated using the feasibility assessment, which provides a measure of the value and distribution of dwellings that the market can be expected to deliver.<sup>120</sup>

Finally, the price points for the existing and future dwellings are shifted forward in time using an assumed rate of change which provides an estimate for each year between 2022-2051. The market shift assumption is important, as minor changes in this rate will greatly affect the price points in 2051.

**Figure 5.1: Dwelling Price Point Model – Structure, Data Inputs and Assumptions.**



The DAM builds onto the DPPM to include the GCP affordability metric. In summary, the DAM calculates future incomes for the households in the GCU area, the maximum that the households can afford, and then compare this to the dwelling price points from the DPPM. The model shows the change in affordability that could occur under each of the development pattern options.

Figure 5.2 provides a graphical display of the model structure, data inputs, and assumptions. First, the income distribution for households in 2022 is established using a range of data sets.<sup>121</sup> Next the income

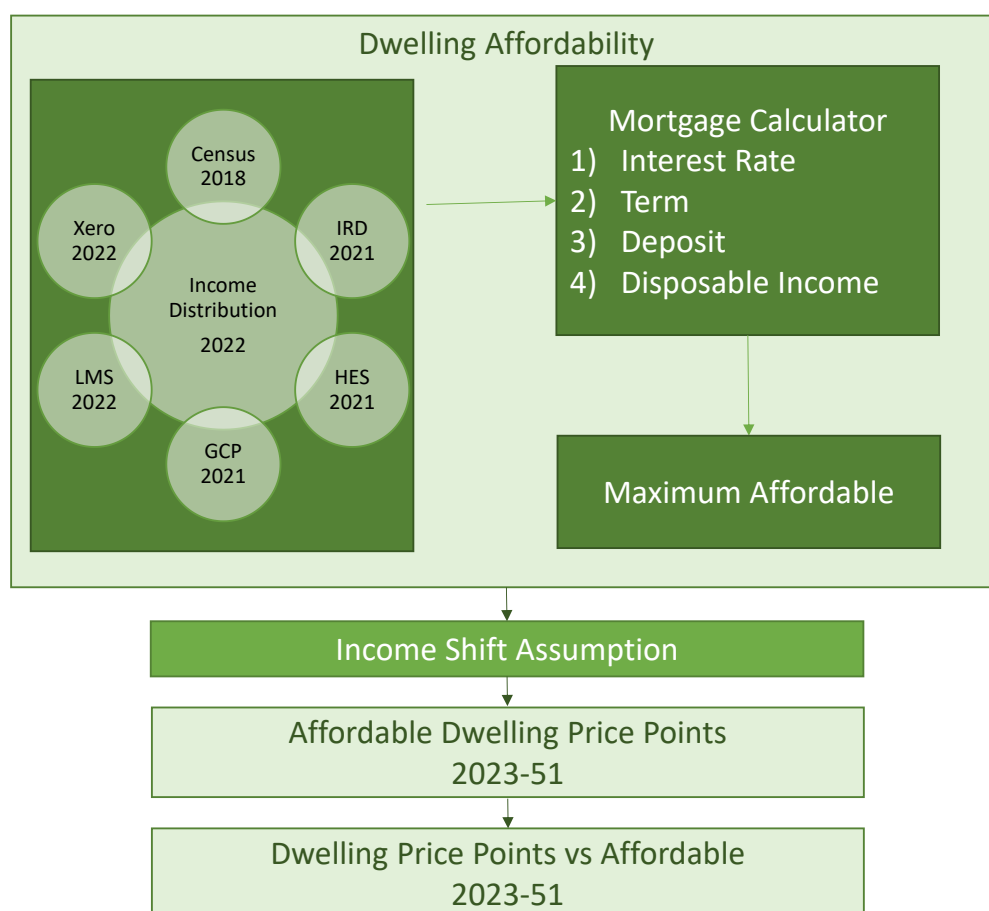
<sup>120</sup> Christchurch City Council (2022) PC14 Yield and Feasibility Assessment – version provided 7<sup>th</sup> July. Formative (2022) Selwyn Feasibility Assessment. Formative (2022) Waimakariri Feasibility Assessment.

<sup>121</sup> Statistics New Zealand (2018) Census of Population and Dwellings.

is run through a standard table mortgage<sup>122</sup> and the affordability definition<sup>123</sup> is applied to ascertain the maximum affordable house purchase price for each income level, and the proportion of households at those income levels.

Finally, the incomes are shifted forward in time using an assumed rate of change which provides an estimate of maximum affordability for each year between 2022-2051. The Income Shift assumption is important, as minor changes in this rate will greatly affect the affordability in 2051. The affordable dwelling price points are then compared to the results from the DPPM to establish the shares of dwellings that are affordable for the households in the GCU area. The model includes the three development pattern options.

**Figure 5.2: Dwelling Affordability Model – Structure, Data Inputs and Assumptions**



Inland Revenue Department (2022) Income distributions of customers.

Statistics New Zealand (2022) Household Economic Survey – Gross Income.

Livingston and Associates Ltd (2021) Housing Demand and Need in Greater Christchurch.

Statistics New Zealand (2022) Labour market statistics: March 2022 quarter.

Xero (2022) New Zealand small business wages and jobs up in May 2022, outpacing Australia and UK.

<sup>122</sup> Table mortgages assume current interest rate (5.56%), 30 year term, 20% deposit.

<sup>123</sup> As defined in previous GCP affordability research, 30% of income is available to pay mortgage.

## 5.2 Dwelling Price Point Model

The dwelling stock price points for 2051 have been estimated separately for the current dwellings and future dwellings. The price points of the current dwellings have been shifted forward in time to reflect real (excluding general inflation) price changes. The price points of the future dwellings have been estimated using commercial feasibility research and data that is drawn from the most recent feasibility assessments undertaken by each of the GCP councils.

First, the value of the current stock is moved forward in time using an assumed level of change in (real) sales prices for each of council, as follows:

- ❖ Waimakariri: 2.43% per annum, the same rate applied in the WDC feasibility modelling - 'Muted' scenario.<sup>124</sup>
- ❖ Selwyn: 2.03% per annum, the same rate applied in the SDC feasibility modelling - 'Muted' scenario.<sup>125</sup>
- ❖ Christchurch: 2.23% per annum, which is a midpoint between Waimakariri and Selwyn, and can be adjusted to match CCC feasibility modelling once that work is completed.<sup>126</sup>

Those assumed price changes can be readily adjusted in the DPPM.

These muted (real) sales price increases are much lower than what has been observed in the last few years. Even applying the assumed muted sale price increases to the current dwelling stock shows that most dwellings (over 94%) will shift in value to price points over \$850,000. If the GCP elects to apply a higher rate of (real) sales price increases, say 3% or more, then there would be even fewer dwellings valued under \$850,000. However, we note that the recent increase in general inflation and declines in sales prices suggest, at least in the coming few years, that (real) sales price increases could be lower than suggested in the muted scenario.

Second, the price points for the future dwellings are estimated using detailed feasibility data from each of the GCP councils. In summary, the feasibility assessments calculate whether it is commercially viable to develop a dwelling on a site<sup>127</sup>. The modelling provides an understanding of the quantum of dwelling capacity that is "feasible", and the associated distribution of price points. While the CCC, SDC and WDC models all use the same simple financial structure, it is natural that there is variation in the

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<sup>124</sup> Formative (2022) Waimakariri Feasibility Assessment.

<sup>125</sup> Formative (2022) Selwyn Feasibility Assessment.

<sup>126</sup> Given the tight timeframes associated with CCC Feasibility Assessment and Plan Change 14, the assessment of future feasibility was not completed. Therefore, CCC was unable to provide an appropriate rate of change for this report.

<sup>127</sup> CCC uses landholding and SDC/WMK uses the property.

types of dwellings tested and the input assumptions. We provide a brief description of the information used from each of the feasibility models and how this data was applied.

### 5.2.1 CCC Feasibility

The feasibility research that was provided by CCC included a ‘current’ assessment of what is feasible in today’s market, which was completed recently before this report was to be delivered.<sup>128</sup> The assessment covers almost 150,000 landholdings in the MDRS and HDR zones that may be implemented as a result of the requirements set out in the Housing Enabling Act (and NPSUD).<sup>129</sup>

The Plan Change 14 which will give effect to the NPS-UD and Enabling Housing Act, with new MRDS and HDR zones being intended to permit a wide range of development outcomes for each landholding and CCC has tested a representative sample of development options, both infill and redevelopment.<sup>130</sup> For many landholdings, there are a number of development options that are commercially feasible. Using the most profitable development option for each landholding, there is more than enough feasible capacity to accommodate the growth suggested under any of the GCP development pattern options. Also, there will be additional capacity within the commercial zones, which is likely to be significant.

Therefore, it is very likely that only a share of feasible development options will be utilised in the coming three decades. Additionally, it is likely that developers will select different development options that are viable but are not the “maximum profit” option. For the DPPM all of the feasible options on every landholding are used to develop a distribution of dwelling types that are feasible within Christchurch’s sub-areas. For example, if 10% of all feasible development options on all landholdings are within \$650,000-\$750,000 band for a sub-area, then it is assumed that 10% of the new dwellings are within this band. Separate distributions were developed for standalone and multi-unit dwellings for each SA2.

CCC has commissioned research on apartment type developments, which indicates that this typology of dwellings is not expected to be viable in the Central City or City Fringe<sup>131</sup> and Mixed Use Zone<sup>132</sup>. The analysis demonstrates that whilst the feasibility of apartment developments increase as heights are increased, it is estimated that heights allowable would need to increase significantly (for example up to 32 stories) to achieve a viable development currently. While this research finds no apartment developments are currently feasible, it indicates that premium and market style apartments are more

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<sup>128</sup> Christchurch City Council (2022) PC14 Yield and Feasibility Assessment – version provided 7<sup>th</sup> July.

<sup>129</sup> Qualifying Matters in PC14 will exclude development in some locations – these are still to be determined during the planning and public submission processes.

<sup>130</sup> In total 10 types of dwelling, 4 Detached, 3 Townhouses, and 3 Apartments.

<sup>131</sup> The Property Group (2022) High Density Residential Feasibility Assessment.

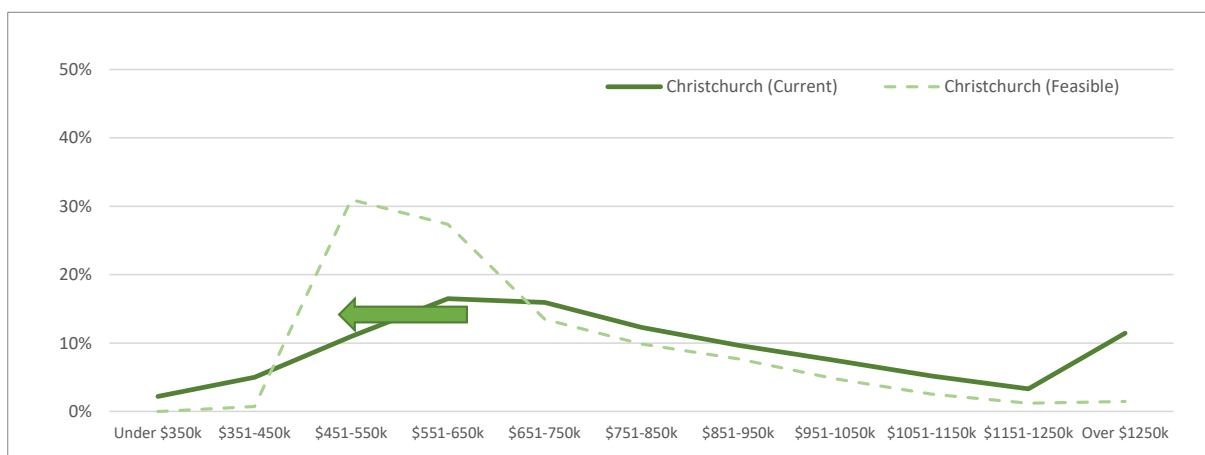
<sup>132</sup> The Property Group (2022) Plan Change 14 – Feasibility Assessment of the Commercial Mixed Use Zone – Memo 7<sup>th</sup> June.

profitable than affordable style apartments. This research found that in the future, as the Christchurch residential market changes and the construction sector stabilises the viability of apartment developments may improve. However, the price points would need to increase to similar prices as those in the Wellington (i.e. approximately 40% increase). This outcome matches research that we have conducted around the country on apartment developments, which also suggests that, for the most part, price points are not high enough to enable the market to develop this typology.

Figure 5.3 shows the distribution of dwelling price points for the current dwellings in Christchurch and the distribution of feasible dwellings from the council’s assessment. The difference between the distributions indicates that the new dwellings that could be developed in Christchurch may have lower price points than the existing dwelling stock.

Also, the feasible dwellings distribution for Christchurch is relatively broad with a larger share of higher priced dwelling options being feasible when compared to Selwyn (Figure 5.4) or Waimakariri (Figure 5.5). This is expected as there is a wider range of suburbs and price points with Christchurch, as compared to the Selwyn or Waimakariri.

**Figure 5.3: Christchurch Price Points Distribution – Current Dwellings (2022) and Feasible Dwellings**



CCC is still undertaking assessments of the future feasibility which means that no data was available for 2051 or any intervening years. To fill this gap the current distributions were shifted forward incrementally every year using the same assumed muted (real) sales price increases as were applied to the current dwelling stock.



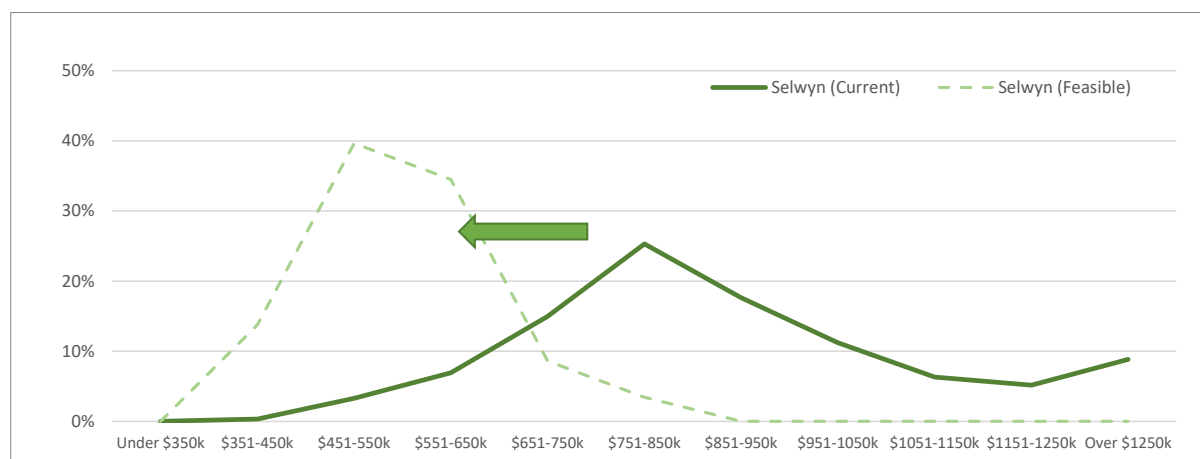
## 5.2.2 SDC and WDC Feasibility

Formative has completed feasibility research for SDC<sup>133</sup> and WDC<sup>134</sup>, which covers greenfield development, infill and most recently intensification redevelopment.<sup>135</sup> In summary, this research showed that most greenfield and infill development is already feasible, while very little intensification was viable. Using the most profitable development option for each property there would not be enough feasible capacity to accommodate the growth suggested under the GCP development pattern options. We understand that the GCP and both councils are exploring options for providing additional supply, which will be included within the Spatial Plan. The feasibility assessments show that intensification redevelopment may become feasible towards the later parts of the long term, i.e. close to 2051, and as such will play a small role in accommodating expected growth.

For the DPPM all of the feasible options on every property are used to develop a distribution of dwelling types that are feasible within the sub-areas of Selwyn and Waimakariri. For example, if 10% of all feasible development options on all properties are within \$650,000-\$750,000 band for a sub-area, then it is assumed that 10% of the new dwellings are within this band. Separate distributions were developed for standalone and multi-unit dwellings. The SDC and WDC feasibility model provides data for each year, which is applied to the sub-areas within the two districts.

Figure 5.4 shows the distribution of dwelling price points for the current dwellings in Selwyn and the distribution of feasible dwellings from the council’s assessment. The difference between the distributions indicates that the new dwellings that could be developed in Selwyn may have much lower price points than the existing dwelling stock.

**Figure 5.4: Selwyn Price Points Distribution – Current Dwellings (2022) and Feasible Dwellings**



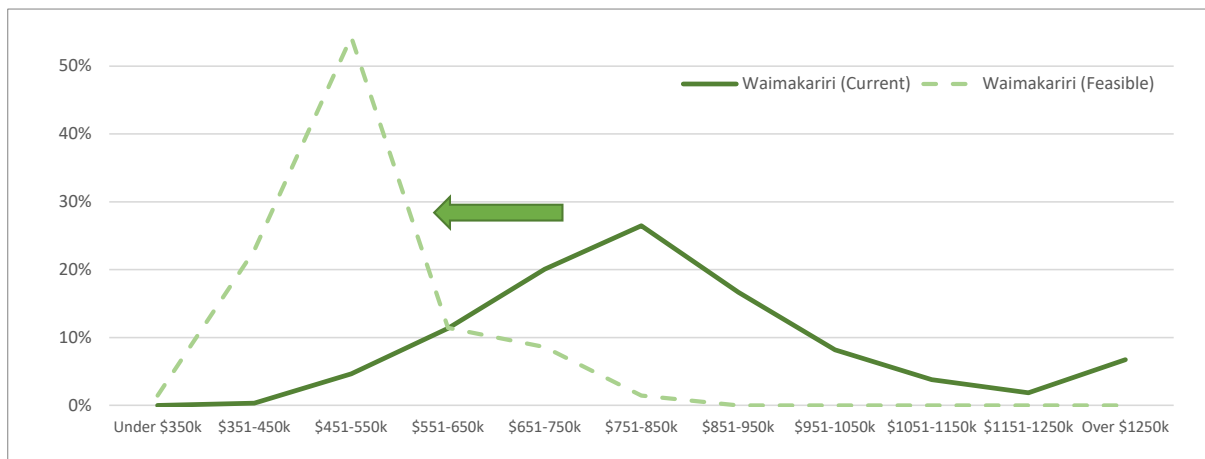
<sup>133</sup> Formative (2022) Selwyn Feasibility Assessment.

<sup>134</sup> Formative (2022) Waimakariri Feasibility Assessment.

<sup>135</sup> In total 36 types of dwelling, 9 Detached, 9 Attached, 9 Townhouses and 9 Apartments.

Figure 5.5 shows the distribution of dwelling price points for the current dwellings in Waimakariri and the distribution of feasible dwellings from the council’s assessment. The difference between the distributions indicates that the new dwellings that could be developed in Waimakariri may have much lower price points than the existing dwelling stock. The distribution is much more peaked in Waimakariri around the lower price points, than in either Selwyn or Christchurch.

**Figure 5.5: Waimakariri Price Points Distribution – Current Dwellings (2022) and Feasible Dwellings**



### 5.2.3 Consolidated – Price Points 2051

Under the baseline, Consolidated development pattern, with GCP dwelling typology and muted real price growth the price points for dwellings would be expected to change from the current price points in 2022.

Most importantly with respect to affordability, there would be only a small number of dwellings under \$750,000 (3% of dwellings) and most of these would be older dwellings or small apartments. The majority of dwellings in GCU area would be valued at more than \$950,000, with 86% of dwellings having price points over this value.

Figure 5.6: Consolidated Price Points 2051 Distribution Compared to 2022 Price Points



Based on the assumed parameters in 2051, there will be significantly lower shares of dwellings in the GCU area valued under \$950,000:

- ❖ 27% in Christchurch Inner, the highest share in the GCU area.
- ❖ 9% in Christchurch Outer, the lowest share in the GCU area.
- ❖ 11% in Waimakariri.
- ❖ 20% in Selwyn.

Figure 5.7: Consolidated Price Points 2051

Price Points 2051		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000		Total
Sub-Area		\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater		Total
Waimakariri	Rangiora	-	26	120	76	145	581	1,003	1,175	1,223	1,174	7,647		13,169
	Kaiapoi	-	5	15	23	23	59	283	586	847	1,005	5,440		8,287
	Woodend	-	2	13	9	56	209	627	883	759	698	5,112		8,367
	Oxford	-	-	-	-	6	43	134	213	242	209	727		1,574
Christchurch City	Central	-	400	47	206	222	230	612	364	706	812	7,096		10,695
	Inner East	-	117	432	1,163	1,716	1,663	1,659	1,826	1,457	1,310	4,511		15,852
	Inner West	-	3	6	122	327	433	621	870	831	546	6,433		10,193
	Northeast	-	4	78	149	456	1,390	3,054	3,905	4,562	3,662	18,411		35,671
	Northwest	-	8	17	32	56	379	1,226	2,781	3,683	4,288	28,588		41,058
	Port Hills	-	1	31	47	88	175	416	627	794	688	12,698		15,564
	Southeast	-	10	45	156	346	829	1,462	1,737	2,110	1,478	7,712		15,886
	Southwest	-	-	13	61	156	711	2,457	3,035	4,184	4,343	28,424		43,384
Selwyn	Rolleston	-	8	40	144	519	2,001	3,154	3,147	2,227	1,844	9,727		22,811
	Lincoln	-	7	23	65	117	465	981	1,366	997	910	4,005		8,936
	Prebbleton & West Melton	-	2	3	14	21	187	528	1,135	1,259	1,112	3,893		8,154
	Darfield & Leeston	-	0	5	22	47	226	564	881	540	551	842		3,678
<b>Greater Christchurch Urban</b>		-	<b>594</b>	<b>887</b>	<b>2,290</b>	<b>4,300</b>	<b>9,582</b>	<b>18,782</b>	<b>24,530</b>	<b>26,421</b>	<b>24,630</b>	<b>151,265</b>		<b>263,279</b>

## 5.2.4 Compact – Price Points 2051

Under the Compact development pattern, with GCP dwelling typology and muted real price growth, the price points for dwellings would also be expected to change considerably from the current price points in 2022.

There would be only a small number of dwellings under \$750,000 across the entire GCU area (3% of dwellings) and most of these would be older dwellings or small apartments. The majority of dwellings in the GCU area would be valued at more than \$950,000, with 87% of dwellings having price points over this value.

Based on the assumed parameters in 2051, there will be significantly lower shares of dwellings in the GCU area valued under \$950,000:

- ❖ 20% in Christchurch Inner, the highest share in the GCU area.
- ❖ 9% in Christchurch Outer, the lowest share in the GCU area.
- ❖ 10% in Waimakariri.
- ❖ 18% in Selwyn.
- ❖ Relative to the Consolidated development pattern, the stock of dwellings would be slightly more expensive under this development pattern.

**Figure 5.8: Compact Price Points 2051**

Price Points 2051		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	
Sub-Area		\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	Total
Waimakariri	Rangiora	-	29	133	83	138	506	794	861	889	912	7,287	11,632
	Kaiapoi	-	5	16	25	26	44	191	418	650	792	4,940	7,108
	Woodend	-	2	14	10	39	128	350	485	407	376	4,551	6,362
	Oxford	-	-	-	-	3	27	91	155	192	166	658	1,291
Christchurch City	Central	-	400	47	206	222	230	618	395	771	1,051	9,590	13,529
	Inner East	-	117	432	1,164	1,731	1,926	2,767	3,071	2,482	1,718	4,786	20,194
	Inner West	-	3	6	122	327	439	655	967	1,014	985	9,884	14,403
	Northeast	-	4	78	146	418	1,288	2,723	3,410	3,947	3,271	17,453	32,737
	Northwest	-	8	17	33	60	552	2,014	3,914	5,007	5,299	31,793	48,696
	Port Hills	-	1	31	46	80	145	303	438	546	549	12,291	14,431
	Southeast	-	10	45	156	342	788	1,299	1,578	2,014	1,445	7,660	15,337
Southwest	-	-	13	60	146	709	2,454	2,869	3,812	4,113	27,679	41,856	
Selwyn	Rolleston	-	10	49	160	403	1,278	1,949	1,953	1,477	1,318	9,362	17,958
	Lincoln	-	9	28	81	132	348	648	889	646	600	3,740	7,121
	Prebbleton & West Melton	-	2	3	17	24	124	329	691	762	676	3,378	6,007
	Darfield & Leesdon	-	0	6	26	51	186	472	751	441	466	771	3,169
<b>Greater Christchurch Urban</b>		-	<b>601</b>	<b>919</b>	<b>2,335</b>	<b>4,141</b>	<b>8,718</b>	<b>17,657</b>	<b>22,846</b>	<b>25,055</b>	<b>23,736</b>	<b>155,822</b>	<b>261,831</b>

## 5.2.5 Dispersed – Price Points 2051

Under the Dispersed development pattern, with GCP dwelling typology and muted real price growth the price points for dwellings would also be expected to change considerably from the current price points in 2022.

As for the other two development pattern options, by 2051 under the Dispersed option, there would be only a small number of dwellings valued under \$750,000 (3% of dwellings) and most of these would be older dwellings or small apartments. The majority of dwellings in GCU would be valued at more than \$950,000, with nearly 86% of dwellings having price points over this value.

Based on the assumed parameters in 2051, there will be significantly lower shares of dwellings in the Christchurch Inner and Outer valued under \$950,000 than under the Consolidated option, but greater shares in Waimakariri and Selwyn:

- ❖ 18% in Christchurch Inner, the highest share in the GCU area.
- ❖ 9% in Christchurch Outer, the lowest share in the GCU area.
- ❖ 14% in Waimakariri.
- ❖ 22% in Selwyn.

**Figure 5.9: Dispersed Price Points 2051**

Price Points 2051		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	
Sub-Area		\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	Total
Waimakariri	Rangiora	-	40	182	115	219	880	1,510	1,729	1,693	1,481	8,033	15,882
	Kaipoi	-	8	22	35	35	89	414	809	1,090	1,252	5,985	9,737
	Woodend	-	3	20	14	84	317	950	1,336	1,151	1,050	5,715	10,640
	Oxford	-	-	-	-	9	59	180	276	295	256	801	1,878
Christchurch City	Central	-	400	47	206	222	230	611	354	679	591	4,819	8,158
	Inner East	-	117	432	1,163	1,715	1,623	1,481	1,581	1,192	1,188	4,359	14,850
	Inner West	-	3	6	122	327	433	619	864	819	498	5,964	9,655
	Northeast	-	4	78	150	464	1,424	3,177	4,055	4,708	3,747	18,610	36,417
	Northwest	-	8	17	32	55	366	1,157	2,628	3,444	4,087	27,889	39,684
	Port Hills	-	1	31	46	79	136	269	402	517	534	12,325	14,340
	Southeast	-	10	45	156	342	788	1,299	1,578	2,014	1,445	7,660	15,337
	Southwest	-	-	13	61	156	719	2,489	3,071	4,214	4,355	28,448	43,527
Selwyn	Rolleston	-	9	44	159	569	2,193	3,454	3,440	2,409	1,970	9,813	24,060
	Lincoln	-	8	25	72	128	509	1,072	1,488	1,085	986	4,068	9,441
	Prebbleton & West Melton	-	2	3	15	23	205	579	1,243	1,379	1,216	4,016	8,681
	Darfield & Leeston	-	0	5	24	50	240	589	914	564	571	859	3,817
<b>Greater Christchurch Urban</b>		-	<b>613</b>	<b>971</b>	<b>2,368</b>	<b>4,476</b>	<b>10,211</b>	<b>19,851</b>	<b>25,768</b>	<b>27,254</b>	<b>25,227</b>	<b>149,364</b>	<b>266,104</b>

### 5.2.6 Status Quo “Current Price”

Finally, one way to isolate the change that could be generated by the different development patterns is to apply no price growth. This effectively compares the values of dwellings today with the price of new dwellings that would be required under each development option.

Figure 5.10 shows that:

- ❖ For Christchurch Inner, there would be an improvement in the number of low price point dwelling under the Compact option, followed by the Consolidated.

- ❖ For Christchurch Outer, there is minimal difference between the three development pattern options, with small improvement in price points for the Compact option and Consolidated.
- ❖ For Waimakariri, there would be a larger improvement in dwelling price points under the Dispersed option, followed by the Consolidated.
- ❖ For Selwyn, there would be a larger improvement in dwelling price points under the Dispersed option, followed closely by the Consolidated.

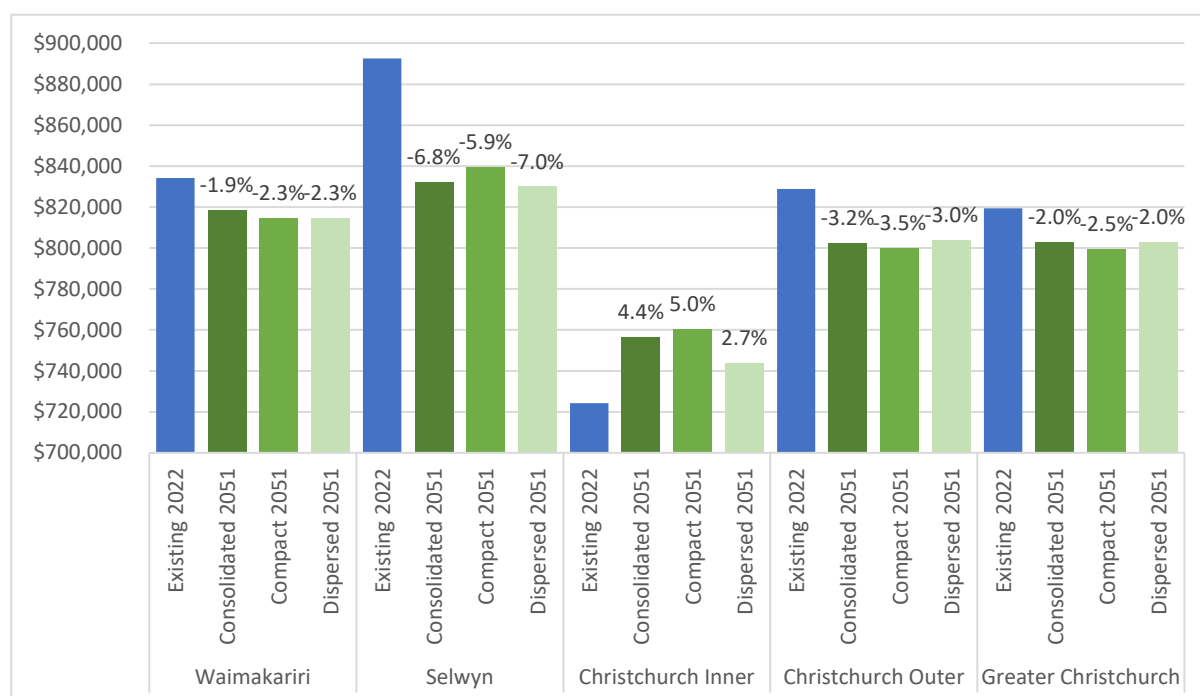
**Figure 5.10: Current Price Points Status Quo Outcomes**



Figure 5.11 shows the difference in the average price of a dwelling under the status quo. The results show that under all development pattern options the price points would drop for the outer areas of GCU area (Christchurch Outer, Selwyn and Waimakariri). The inner parts of the GCU area would have higher price points under all the options, with highest increase being under the Compact option. However, this is from a lower existing average price.

In total the GCU area would experience lower price points under all development pattern options, with 2% change under the Consolidated, while Dispersed and Compact would be 2.3% lower.

**Figure 5.11: Average Price Points Status Quo Outcomes by Area and Development Pattern**



### 5.3 Dwelling Affordability Model

The Dwelling Affordability Model assesses the income levels and affordability within GCU area between 2022 and 2051 as compared to the price points from the DPPM.

#### 5.3.1 Household Income Distribution

The first step in the DAM is to assesses household income distribution at the GCU area level. The model does not attempt to establish income levels within the sub-areas or territorial components of the GCU area.

The model takes the baseline income distribution from 2022 (see Figure 3.7) and applies an assumed income shift of 2.18%, which has been set according to the difference between household income growth between 1998 and 2021<sup>136</sup> and background inflation<sup>137</sup>. Figure 5.12 show the assumed real income shift that could be expected for GCU area.

The resulting household income distribution shows that:

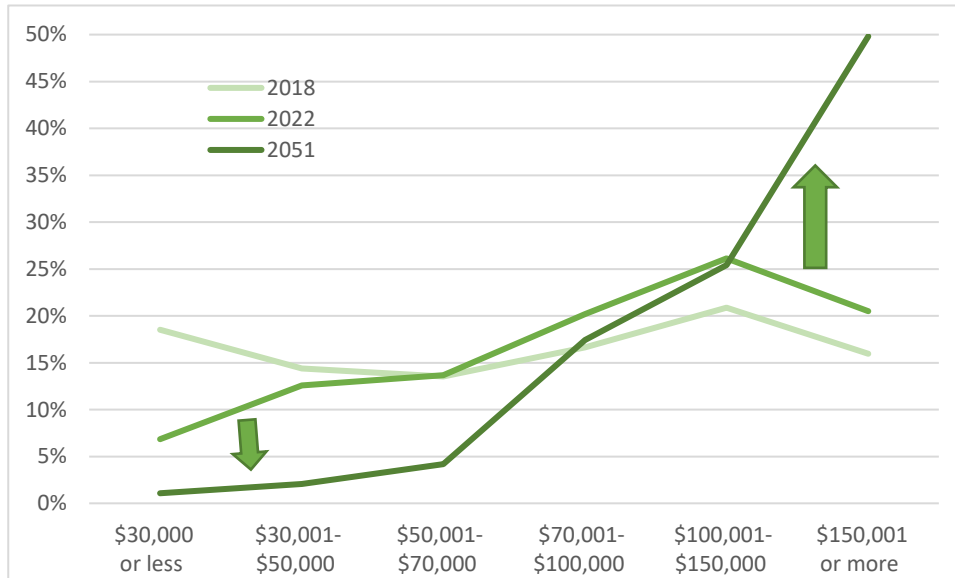
- ❖ a large share (50%) of households would earn over \$150,000 per annum in 2051.
- ❖ there would still be a considerable number of households earning between \$70,000 to \$150,000, with 43% of households in this group.

<sup>136</sup> Statistics New Zealand (2022) Household Economic Survey – Gross Income – Canterbury Region.

<sup>137</sup> Statistics New Zealand (2022) Consumer Price Index - CPI All Groups for New Zealand.

- ❖ almost 4% of households would earn \$50,000 to \$70,000 per annum in 2051.
- ❖ very few households would earn under \$50,000 per annum in 2051 (3%).

**Figure 5.12: Dwelling Affordability Model – Household Income Distribution GCU area**



### 5.3.2 Mortgage Calculator

As discussed above, the DAM applies a standard mortgage calculator to establish what dwelling prices points each household can afford. This is then applied to the Household Income Distribution to provide an understanding of what is affordable for each group in the community. Specifically, the DAM applies a table mortgage that assumes current interest rate (5.56%)<sup>138</sup>, 30 year term, 20% deposit, and 30% of income is available to pay mortgage (as defined in GCP affordability research).

Based on the mortgage calculator and the household income distributions, the following dwellings price points would be affordable to households in each income group:

- ❖ households with income under \$50,000 can afford dwellings under \$300,000, which applies to 3% of households in 2051.
- ❖ households with income between \$50,000 to \$70,000 can afford dwellings under \$380,000, which applies to 4% of households in 2051.
- ❖ households with income between \$70,000 to \$100,000 can afford dwellings up to \$550,000, which applies to 17% of households in 2051.
- ❖ households with income between \$100,000 to \$150,000 can afford dwellings up to \$820,000, which applies to 25% of households in 2051.

<sup>138</sup> Reserve Bank of New Zealand (2022) New standard residential mortgage interest rates (average % end of month).



- ❖ households with income over \$150,000 can afford dwellings over \$820,000, which applies to 50% of households in 2051.

In summary, while the income distribution of households has shifted and more households will be expected to have higher incomes and be able to afford higher dwelling price points, the output suggests that there is still going to be around a third of households that cannot afford to purchase any dwellings on the market. Therefore, the government social housing and private rentals market will continue to play a significant role providing affordable housing to these households.

The mortgage calculator shows that lowest income households (7% within incomes under \$70,000) are not likely to be able to afford any market provided dwelling option, which is broadly consistent with the current situation in 2022. This outcome also applies to the other lower income households, between \$70,000 to \$100,000, who are also expected to struggle to afford a dwelling. Combined, these groups represent a third of households and will likely need to rent dwellings or be supported by government via social housing.

The following subsections the outputs are provided for the three development pattern options.

### 5.3.3 Consolidated – Affordability 2051

Under the baseline, Consolidated development pattern, with GCP dwelling typology and muted real price growth the price points for dwellings would be expected to change considerably from the current price points in 2022. However, incomes will also increase over the period which will mean that affordability is impacted less than would otherwise have occurred.

Based on the assumed parameters in 2051, there will be:

- ❖ 50% of households with high incomes can afford a wide range of dwellings and will not face affordability constraints.
- ❖ 25% of households with medium incomes can afford a small range of dwellings (6.7%). Some of this group will face affordability constraints.
- ❖ 25% of households on lower incomes can afford very few dwellings (less than 0.8% of dwellings). The vast majority of these households will face affordability constraints and will need to rent a dwelling or require assistance from the government, either directly in terms of social housing or via subsidies.

**Figure 5.13: Consolidated Affordability Outcome 2051 - GCU, Christchurch, Waimakariri and Selwyn**



### 5.3.4 Compact – Price Points 2051

Under the Compact development pattern, with GCP dwelling typology and muted real price growth, the price points for dwellings would also be expected to change considerably from the current price points in 2022.

Based on the assumed parameters in 2051, there will be:

- ❖ 50% of households with high incomes can afford a wide range of dwellings and will not face affordability constraints.
- ❖ 25% of households with medium incomes can afford a small range of dwellings (6.4%). Some of this group will face affordability constraints.
- ❖ 25% of households on lower incomes can afford very few dwellings (less than 0.8% of dwellings). The vast majority of these households will face affordability constraints and will need to rent a dwelling or require assistance from the government, either directly in terms of social housing or subsidies.

**Figure 5.14: Compact Affordability Outcome 2051 - GCU, Christchurch, Waimakariri and Selwyn**



### 5.3.5 Dispersed – Price Points 2051

Under the Dispersed development pattern, with GCP dwelling typology and muted real price growth the price points for dwellings would also be expected to change considerably from the current price points in 2022.

Based on the assumed parameters in 2051, there will be:

- ❖ 50% of households with high incomes can afford a wide range of dwellings and will not face affordability constraints.
- ❖ 26% of households with medium incomes can afford a small range of dwellings (7.0%). Some of this group will face affordability constraints.
- ❖ 24% of households on lower incomes that can afford very few dwellings (less than 0.8% of dwellings). The vast majority of these households will face affordability constraints and will need to rent a dwelling or require assistance from the government, either directly in terms of social housing or subsidies.

**Figure 5.15: Dispersed Affordability Outcome 2051**



## 5.4 DAM and DPPM Tool

Briefly, the GCP - DAM and DPPM tool is an Excel spreadsheet that has four sheets:

- ❖ Model Notes: this sheet provides a brief description of the model
- ❖ Dwelling Price Point Model: this outputs results from the DPPM for the selected model run (see Figure 5.16).
- ❖ Dwelling Affordability Model: this outputs results from the DAM for the selected model run.
- ❖ Typology Shares: this shows the scenario options that can be used within the model to allocate growth to each type of dwelling.

The user can change the orange boxes on the 'Dwelling Price Point Model' and 'Dwelling Affordability Model' sheets to run different development patterns, typology shares, and assumed real price and income changes.

Figure 5.16: Dwelling Price Point Model – Results Sheet

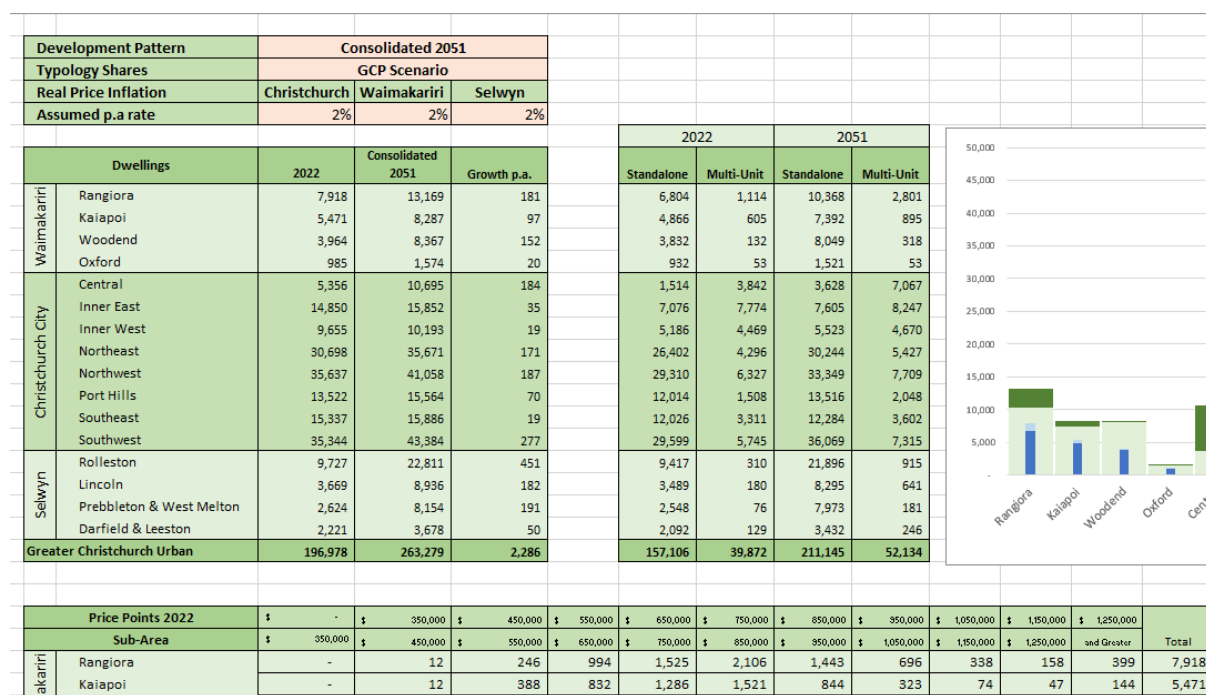
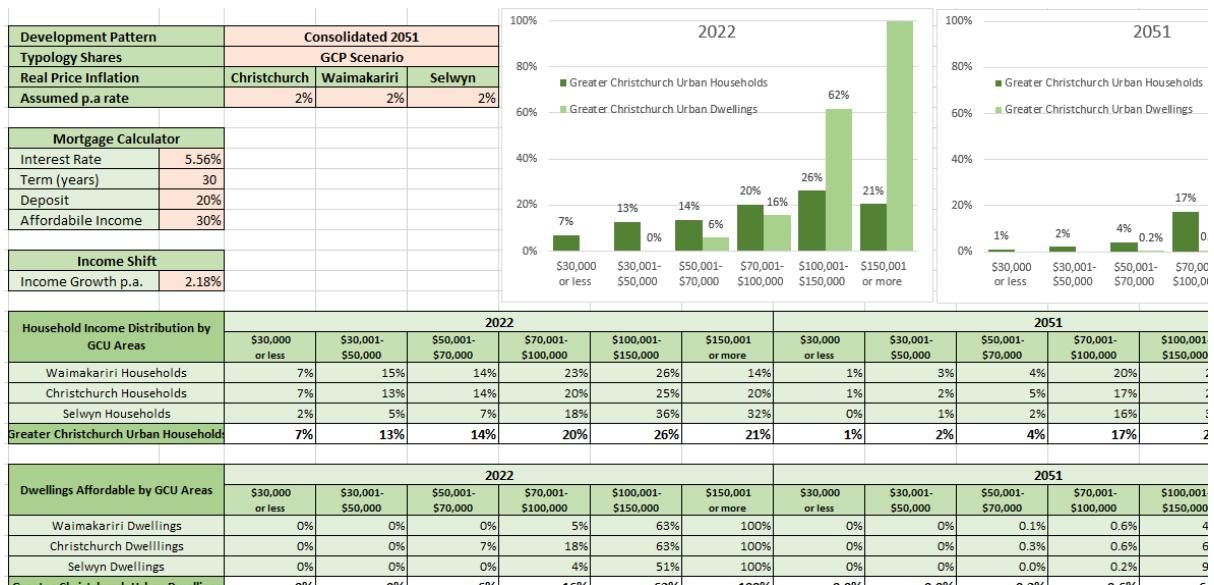


Figure 5.17: Dwelling Affordability Model – Results Sheet



### 5.5 Summary of Affordability Assessments

The Dwelling Price Point Model, stage one of the research, shows that the market based price points are likely to change significantly in the future. This change occurs under all of the development pattern options and the difference between the options is relatively small. A large share of dwellings will be valued at more than \$950,000 by 2051, with very few being valued below this point.

Comparing the three options, the Compact development pattern option would result in higher price points than the other two options in Selwyn and Waimakariri, followed by the Consolidated option. The Dispersed development pattern option would have the greatest share of lower priced dwellings in Selwyn and Waimakariri. This is driven by the relative cost of building new dwellings and higher density dwellings, which results in higher price points. The lowest price points in Christchurch City would be achieved under the Consolidated, followed by the Compact option, with the smallest share of lower priced dwellings existing under the Dispersed option.

However, we consider that it is likely that the community will be provided with a wider range of dwellings than is suggested in the standard (NPSUD) feasibility assessments that have been used in the DPPM. For example, it is likely that government, non-government agencies, and other developers will provide dwellings at price points that are lower than what is predicted in the DPPM, and this will increase dwelling numbers in lower, affordable price points.

The Dwelling Affordability Model, stage two of the research, shows that the incomes of households can be expected to increase which will offset some of the change in the Dwelling Price Points. However, based on incomes and standard affordability measures it is expected that a large share of households will not be able to afford a dwelling at the market based price points in 2051. This outcome

is unsurprising, and it is expected that a large share of households will continue to rent a dwelling or require assistance from the government, either directly in terms of social housing or subsidies.

The affordability outcomes reasonably similar between the development pattern options, with more or less the same number of households not being able to afford a dwelling under all three development patterns. This highlights the fact that affordability and housing market is multi-faceted and a change in policy around the spatial pattern is unlikely to solve the housing affordability crisis in and of itself, and also highlights the inertia in affordability that will take a long time to be overcome as new dwelling stock is created.

## 6 Conclusion

Based on the Dwelling Price Point Model and the Dwelling Affordability Model research, we consider that the market based price points are likely to change significantly in the future and that affordability in the GCU area could deteriorate. This change occurs under all of the development patterns and the difference between the options is relatively small. A large share of dwellings will be valued at more than \$950,000 by 2051, with very few being valued below this point. While a large share of households will have sufficient incomes to afford dwellings in the GCU area in 2051, there will still be a significant share that will not be able to afford a dwelling and will be required to rent or require assistance from the government, either directly in terms of social housing or subsidies.

Comparing the three options, the Compact development pattern option would result in higher price points than the other two options in Selwyn and Waimakariri, followed by the Consolidated option. The Dispersed development pattern option would have the greatest share of lower priced dwellings in Selwyn and Waimakariri. This is driven by the relative cost of building new dwellings and higher density dwellings, which results in higher price points. The lowest price points in Christchurch City would be under the Consolidated, followed by the Compact option, with the smallest share of lower priced dwellings existing under the Dispersed option.

The feasibility assessments which are a key input of the modelling, are based on market outcomes which shows relatively small differential between the dwellings that are feasible across GCU area. This means that the different distributions proposed in the development pattern options do not cause a significant change in affordability outcomes. Broadly, moving some growth from one area in the GCU area to the next does result in changes in overall price points, but in the context of the inertia created by the bulk of the existing dwelling stock the impacts are relatively small.

However, we consider that it is likely that the community will be provided with a wider range of dwellings than is suggested in the standard (NPSUD) feasibility assessments that have been used in the DPPM. For example, it is likely that government, non-government agencies, and other developers will provide dwellings at price points that are lower than what is predicted in the modelling.

The role of Kāinga Ora, with its non-market objectives, vast resources (capital and land), and quasi government powers, is likely to have growing impact on the housing market in GCU area. Specifically, it is expected that this new entity will build more affordable houses which will meet the needs of the community and correct the market failure.

We agree with the findings of earlier housing research conducted for the GCP that suggested that the partnership should explore development with “Kāinga Ora and community housing providers what is needed to more successfully develop market and subsidised affordable homes (including smaller



homes).<sup>139</sup> Also that housing need is likely to continue to be an issue over the coming three decades for a large share of households in the GCU area, especially those that rent and/or who are supported by the government.<sup>140</sup>

While outside the scope of this project we make the following observations:

- ❖ At the moment there are limited tenure options in the GCU area, mostly being either ownership or rental via the market. For the most part, the national and local policy settings have been focussed on providing more of these two market-based tenure options which has not solved the housing crisis. Broadly, the market is failing to provide affordable housing, and policies that are intended to encourage more market-based housing may not solve the crisis. There may be other non-market and different tenure schemes which could be used to provide affordable housing options.
- ❖ There may be demand for a wider range of dwelling types, both in terms of typology (terraced/apartments) and character (size, carparking, etc) which could allow a wider range of dwellings to be provided by the market. Whether or not there is demand or changing preferences could be investigated, as the provision of different types of dwellings could allow more affordable housing to be provided within the GCU area. Currently GCP has relied on research that is based on revealed preferences (Livingston Livingston and Associates Ltd 2021) and some of the partners have undertaken limited survey collection (Life in Christchurch housing 2021), we suggest that GCP could consider collect information on preferences using latest research methods.
- ❖ There are other developers that have different types of business models, which may be willing to develop dwellings that a more affordable. Currently, the research on development within the GCU area has focused on commercial market which does not capture these groups. The GCP could develop an understanding of these other developers to establish a wider picture of the nature of dwellings that maybe provided in the GCU area. GCP could look to establish or expand collaboration with these developers with the goal of encouraging more affordable dwellings to be developed in the GCU area.

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<sup>139</sup> Community Housing Aotearoa and Perrot Consulting (2020) Greater Christchurch Partnership Social and Affordable Housing Action Report.

<sup>140</sup> Livingston and Associates Ltd (2021) Housing Demand and Need in Greater Christchurch.

# Appendix 1 Detailed Results

Figure 6.1: Estimated Dwelling Price Points 2022 – by subareas and type of dwelling

Price Points 2022		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	
Sub-Area		\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	Standalone	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	Multi-Unit
Waimakariri	Rangiora	-	6	202	842	1,342	1,967	1,291	594	287	95	177	6,804	-	6	44	152	184	139	152	101	51	63	222	1,114
	Kaiapoi	-	12	313	744	1,186	1,446	798	261	66	18	20	4,866	-	-	75	87	100	75	46	62	8	29	124	605
	Woodend	-	-	6	62	575	1,071	676	462	282	113	586	3,832	-	-	-	-	-	-	22	-	-	22	88	132
	Oxford	-	27	213	191	275	148	57	16	-	-	5	932	-	6	-	-	19	6	13	-	-	-	9	53
Christchurch City	Central	10	30	76	137	129	94	81	68	72	41	778	1,514	665	404	851	829	402	239	106	108	28	24	186	3,842
	Inner East	82	416	1,303	1,274	1,118	756	514	317	241	177	878	7,076	1,857	2,713	1,701	876	315	145	73	30	14	16	33	7,774
	Inner West	12	64	279	367	368	387	270	214	209	267	2,750	5,186	148	705	1,083	953	590	302	202	135	86	62	205	4,469
	Northeast	156	617	2,985	5,688	4,241	3,320	3,308	2,359	1,345	622	1,762	26,402	98	955	1,705	1,004	275	113	54	31	32	9	19	4,296
	Northwest	24	159	1,223	4,093	5,179	4,436	3,675	2,857	1,592	1,221	4,851	29,310	42	213	1,663	1,916	1,242	582	254	190	107	46	72	6,327
	Port Hills	41	111	215	477	722	1,205	1,263	1,473	1,102	1,212	4,193	12,014	43	66	207	238	306	242	146	85	98	28	50	1,508
	Southeast	74	317	1,575	2,523	2,019	1,869	1,231	832	571	265	750	12,026	159	894	1,179	615	250	141	58	13	2	-	-	3,311
	Southwest	32	71	336	3,345	7,023	5,467	4,157	3,256	2,799	1,295	1,818	29,599	64	294	1,228	2,116	1,410	399	121	34	13	21	42	5,745
Selwyn	Rolleston	-	2	12	433	1,814	3,463	2,140	917	393	158	85	9,417	-	-	8	12	4	8	23	27	62	50	117	310
	Lincoln	-	1	17	95	239	759	867	841	295	138	238	3,489	-	8	41	67	7	9	8	3	5	6	25	180
	Prebbleton & West Melton	-	-	1	6	48	97	125	231	395	587	1,057	2,548	-	-	-	-	6	-	-	3	-	-	68	76
	Darfield & Leeston	-	30	483	636	601	271	48	17	3	-	3	2,092	-	21	35	19	12	11	4	7	-	-	19	129
<b>Greater Christchurch Urban</b>		<b>430</b>	<b>1,863</b>	<b>9,238</b>	<b>20,912</b>	<b>26,878</b>	<b>26,757</b>	<b>20,501</b>	<b>14,716</b>	<b>9,651</b>	<b>6,209</b>	<b>19,950</b>	<b>157,106</b>	<b>3,078</b>	<b>6,286</b>	<b>9,820</b>	<b>8,884</b>	<b>5,121</b>	<b>2,410</b>	<b>1,282</b>	<b>829</b>	<b>506</b>	<b>376</b>	<b>1,280</b>	<b>39,872</b>

Figure 6.2: Consolidated Price Points 2051 – by subareas and type of dwelling

Price Points 2051		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	
Sub-Area		\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	Standalone	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	Multi-Unit
Waimakariri	Rangiora	-	-	-	-	38	232	541	792	1,010	1,071	6,683	10,368	-	26	120	76	106	349	462	383	214	103	963	2,801
	Kaiapoi	-	-	-	-	2	38	225	479	761	936	4,951	7,392	-	5	15	23	22	21	58	107	86	69	489	895
	Woodend	-	-	-	-	39	176	585	843	738	691	4,977	8,049	-	2	13	9	17	33	42	40	21	8	134	318
	Oxford	-	-	-	-	6	43	128	213	242	209	680	1,521	-	-	-	-	-	-	6	-	-	-	47	53
Christchurch City	Central	-	-	1	9	8	17	45	36	81	268	3,163	3,628	-	400	46	197	214	213	567	329	625	545	3,932	7,067
	Inner East	-	-	13	60	91	346	671	803	809	893	3,920	7,605	-	117	419	1,103	1,625	1,317	988	1,023	647	417	591	8,247
	Inner West	-	-	3	7	17	39	96	222	221	178	4,741	5,523	-	3	3	115	309	395	525	648	610	368	1,692	4,670
	Northeast	-	-	43	105	214	614	1,798	2,741	3,738	3,244	17,747	30,244	-	4	34	45	243	777	1,256	1,164	824	417	665	5,427
	Northwest	-	-	8	14	26	162	479	1,465	2,382	3,208	25,605	33,349	-	8	10	18	29	216	747	1,316	1,301	1,080	2,983	7,709
	Port Hills	-	-	9	32	53	113	269	371	535	481	11,654	13,516	-	1	22	16	35	61	147	255	259	207	1,044	2,048
	Southeast	-	-	16	56	69	227	631	1,120	1,686	1,189	7,291	12,284	-	10	29	100	277	602	831	617	424	289	421	3,602
	Southwest	-	-	8	27	59	372	1,464	1,825	2,706	3,163	26,446	36,069	-	-	6	35	97	339	993	1,209	1,478	1,180	1,979	7,315
Selwyn	Rolleston	-	-	-	29	375	1,879	3,069	3,074	2,198	1,837	9,436	21,896	-	8	40	116	144	122	85	73	30	7	291	915
	Lincoln	-	-	-	-	18	355	886	1,253	944	897	3,943	8,295	-	7	23	65	99	110	95	113	53	13	62	641
	Prebbleton & West Melton	-	-	-	-	2	168	510	1,119	1,252	1,107	3,814	7,973	-	2	3	14	19	19	18	15	8	5	79	181
	Darfield & Leeston	-	-	-	3	16	180	520	856	521	546	791	3,432	-	0	5	19	31	47	44	25	18	5	51	246
<b>Greater Christchurch Urban</b>		-	-	<b>100</b>	<b>340</b>	<b>1,032</b>	<b>4,962</b>	<b>11,918</b>	<b>17,213</b>	<b>19,823</b>	<b>19,917</b>	<b>135,841</b>	<b>211,145</b>	-	<b>594</b>	<b>787</b>	<b>1,950</b>	<b>3,267</b>	<b>4,620</b>	<b>6,864</b>	<b>7,317</b>	<b>6,599</b>	<b>4,713</b>	<b>15,424</b>	<b>52,134</b>

Figure 6.3: Compact Price Points 2051 – by subareas and type of dwelling

Price Points 2051		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	
Sub-Area		\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	Standalone	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	Multi-Unit
Waimakariri	Rangiora	-	-	-	-	21	121	285	442	657	805	6,324	8,656	-	29	133	83	117	385	508	418	232	107	963	2,976
	Kaiapoi	-	-	-	-	2	21	127	304	558	720	4,450	6,182	-	5	16	25	24	23	64	114	92	72	490	926
	Woodend	-	-	-	-	20	92	304	441	384	367	4,416	6,024	-	2	14	10	19	36	46	45	23	9	134	338
	Oxford	-	-	-	-	3	27	84	155	192	166	611	1,238	-	-	-	-	-	-	6	-	-	-	47	53
Christchurch City	Central	-	-	1	9	8	17	45	36	74	103	1,488	1,782	-	400	46	197	214	213	572	359	697	947	8,102	11,747
	Inner East	-	-	13	60	91	340	645	754	742	859	3,867	7,371	-	117	419	1,104	1,639	1,586	2,122	2,317	1,740	859	919	12,823
	Inner West	-	-	3	7	17	39	96	222	222	181	4,782	5,569	-	3	3	116	310	401	558	745	793	803	5,102	8,834
	Northeast	-	-	43	101	172	473	1,310	2,089	3,019	2,805	16,694	26,707	-	4	34	45	246	816	1,413	1,321	928	465	759	6,030
	Northwest	-	-	8	14	26	148	392	1,228	1,977	2,862	24,374	31,027	-	8	10	19	34	404	1,622	2,686	3,030	2,437	7,419	17,669
	Port Hills	-	-	9	31	43	73	119	130	227	309	11,191	12,132	-	1	22	16	37	71	185	308	319	240	1,100	2,299
	Southeast	-	-	16	56	67	210	564	1,053	1,642	1,171	7,248	12,026	-	10	29	100	275	578	735	525	373	273	412	3,311
	Southwest	-	-	8	25	37	98	334	523	1,584	2,664	25,469	30,741	-	-	6	36	110	610	2,120	2,346	2,228	1,450	2,210	11,115
Selwyn	Rollleston	-	-	-	17	226	1,127	1,844	1,866	1,442	1,309	9,071	16,903	-	10	49	142	177	151	105	87	35	9	291	1,055
	Lincoln	-	-	-	-	11	215	535	763	587	584	3,678	6,372	-	9	28	81	121	133	113	126	60	16	62	749
	Prebbleton & West Melton	-	-	-	-	1	101	307	672	753	671	3,298	5,802	-	2	3	17	23	23	22	19	10	6	80	205
	Darfield & Leeston	-	-	-	3	14	133	423	723	421	461	719	2,896	-	0	6	23	37	53	49	28	20	5	52	273
<b>Greater Christchurch Urban</b>		-	-	<b>100</b>	<b>322</b>	<b>758</b>	<b>3,235</b>	<b>7,415</b>	<b>11,400</b>	<b>14,479</b>	<b>16,037</b>	<b>127,680</b>	<b>181,426</b>	-	<b>601</b>	<b>819</b>	<b>2,013</b>	<b>3,383</b>	<b>5,483</b>	<b>10,242</b>	<b>11,446</b>	<b>10,576</b>	<b>7,699</b>	<b>28,142</b>	<b>80,405</b>

Figure 6.4: Dispersed Price Points 2051 – by subareas and type of dwelling

Price Points 2051		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	Standalone	\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	Multi-Unit
Sub-Area		\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater		\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	
Waimakariri	Rangiora	-	-	-	-	57	351	815	1,168	1,388	1,357	7,069	12,206	-	40	182	115	161	530	695	562	305	123	964	3,676
	Kaiapoi	-	-	-	-	2	57	329	668	978	1,168	5,489	8,692	-	8	22	35	33	32	84	141	112	83	495	1,045
	Woodend	-	-	-	-	59	267	887	1,274	1,119	1,038	5,580	10,224	-	3	20	14	26	50	64	61	32	12	135	416
	Oxford	-	-	-	-	9	59	174	276	295	256	754	1,825	-	-	-	-	-	-	6	-	-	-	47	53
Christchurch City	Central	-	-	1	9	8	17	45	36	78	178	2,254	2,626	-	400	46	197	214	213	565	319	602	412	2,565	5,532
	Inner East	-	-	13	60	91	334	611	692	657	817	3,801	7,076	-	117	419	1,103	1,624	1,289	870	889	534	371	557	7,774
	Inner West	-	-	3	7	17	39	96	221	218	150	4,436	5,186	-	3	3	115	309	395	524	643	601	348	1,528	4,469
	Northeast	-	-	43	105	220	637	1,878	2,848	3,856	3,316	17,919	30,824	-	4	34	45	243	787	1,299	1,207	853	431	691	5,593
	Northwest	-	-	8	14	26	156	441	1,361	2,204	3,056	25,064	32,329	-	8	10	18	29	210	716	1,267	1,240	1,031	2,825	7,355
	Port Hills	-	-	9	31	46	87	171	215	335	369	11,353	12,618	-	1	22	15	32	48	97	187	182	165	972	1,722
	Southeast	-	-	16	56	67	210	564	1,053	1,642	1,171	7,248	12,026	-	10	29	100	275	578	735	525	373	273	412	3,311
	Southwest	-	-	8	27	59	378	1,490	1,855	2,731	3,174	26,468	36,189	-	-	6	35	97	341	1,000	1,216	1,483	1,181	1,980	7,338
Selwyn	Rollleston	-	-	-	31	411	2,058	3,361	3,362	2,377	1,962	9,523	23,085	-	9	44	127	158	134	94	79	32	8	291	975
	Lincoln	-	-	-	-	19	389	969	1,370	1,029	972	4,006	8,754	-	8	25	72	109	120	103	119	56	15	62	687
	Prebbleton & West Melton	-	-	-	-	2	184	559	1,226	1,371	1,211	3,936	8,490	-	2	3	15	20	21	20	17	9	5	79	191
	Darfield & Leeston	-	-	-	3	16	191	543	887	545	566	808	3,559	-	0	5	21	34	49	46	26	19	5	52	258
<b>Greater Christchurch Urban</b>		-	-	<b>100</b>	<b>342</b>	<b>1,111</b>	<b>5,414</b>	<b>12,933</b>	<b>18,510</b>	<b>20,824</b>	<b>20,763</b>	<b>135,709</b>	<b>215,707</b>	-	<b>613</b>	<b>871</b>	<b>2,026</b>	<b>3,365</b>	<b>4,796</b>	<b>6,918</b>	<b>7,258</b>	<b>6,430</b>	<b>4,464</b>	<b>13,655</b>	<b>50,397</b>

Figure 6.5: Consolidated Price Points 2051 – by subareas and type of dwelling (Status Quo Current Prices)

Price Points 2051		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	
Sub-Area		\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	Standalone	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	Multi-Unit
Waimakariri	Rangiora	-	6	374	1,642	1,959	2,720	1,715	956	499	320	177	10,368	-	128	536	600	542	257	275	129	51	63	222	2,801
	Kaiapoi	-	12	452	1,006	1,544	1,770	1,280	560	269	478	20	7,392	8	29	112	166	141	119	69	80	17	31	124	895
	Woodend	-	58	238	818	1,173	1,875	1,248	890	694	468	586	8,049	7	20	40	39	29	22	35	14	2	22	88	318
	Oxford	-	35	245	297	381	261	136	76	35	50	5	1,521	-	6	-	-	19	6	13	-	-	-	9	53
Christchurch City	Central	10	30	76	137	454	256	488	1,287	72	41	778	3,628	665	404	853	923	723	862	640	478	296	1,036	186	7,067
	Inner East	82	416	1,427	1,584	1,133	763	532	372	241	177	878	7,605	1,857	2,716	1,974	1,053	326	153	73	30	14	16	33	8,247
	Inner West	12	64	280	372	395	499	344	247	209	351	2,750	5,523	148	705	1,085	970	626	351	245	157	105	72	205	4,670
	Northeast	156	728	4,133	7,105	4,810	3,406	3,557	2,508	1,379	699	1,762	30,244	98	970	2,405	1,239	380	148	82	45	32	9	19	5,427
	Northwest	24	161	1,482	5,571	6,151	4,869	3,800	2,953	1,814	1,673	4,851	33,349	42	214	1,926	2,369	1,561	729	364	260	125	46	72	7,709
	Port Hills	41	138	555	1,135	782	1,254	1,398	1,640	1,168	1,212	4,193	13,516	43	77	384	476	370	279	158	85	98	28	50	2,048
	Southeast	74	322	1,733	2,578	2,019	1,869	1,247	856	571	265	750	12,284	159	898	1,411	666	250	145	58	13	2	-	-	3,602
	Southwest	32	138	3,515	5,526	7,098	5,541	4,603	3,678	2,826	1,295	1,818	36,069	64	307	2,338	2,498	1,439	434	123	34	13	21	42	7,315
Selwyn	Rolleston	-	2	614	3,834	4,328	5,886	4,148	1,658	919	421	85	21,896	-	108	172	185	105	43	35	38	62	50	117	915
	Lincoln	-	1	169	891	1,143	1,875	1,728	1,227	581	442	238	8,295	-	68	160	194	88	57	20	15	9	6	25	641
	Prebbleton & West Melton	-	-	151	511	946	1,074	1,482	554	1,060	1,137	1,057	7,973	-	13	22	25	26	13	6	7	-	2	68	181
	Darfield & Leeston	-	30	557	844	842	578	258	153	82	85	3	3,432	-	36	63	53	31	22	9	11	1	-	19	246
<b>Greater Christchurch Urban</b>		<b>430</b>	<b>2,142</b>	<b>16,002</b>	<b>33,851</b>	<b>35,156</b>	<b>34,499</b>	<b>27,965</b>	<b>19,616</b>	<b>12,419</b>	<b>9,114</b>	<b>19,950</b>	<b>211,145</b>	<b>3,093</b>	<b>6,700</b>	<b>13,482</b>	<b>11,457</b>	<b>6,656</b>	<b>3,639</b>	<b>2,204</b>	<b>1,395</b>	<b>826</b>	<b>1,403</b>	<b>1,280</b>	<b>52,134</b>

Figure 6.6: Compact Price Points 2051 – by subareas and type of dwelling (Status Quo Current Prices)

Price Points 2051		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	
Sub-Area		\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	Standalone	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	Multi-Unit
Waimakariri	Rangiora	-	6	291	1,258	1,662	2,358	1,511	783	397	212	177	8,656	-	140	587	647	579	269	288	131	51	63	222	2,976
	Kaiapoi	-	12	386	881	1,373	1,615	1,049	417	172	258	20	6,182	8	32	116	175	145	124	71	82	18	31	124	926
	Woodend	-	30	127	455	886	1,489	974	685	496	297	586	6,024	8	22	45	43	32	24	37	15	2	22	88	338
	Oxford	-	31	230	246	330	207	98	47	18	26	5	1,238	-	6	-	-	19	6	13	-	-	-	9	53
Christchurch City	Central	10	30	76	137	170	114	133	222	72	41	778	1,782	665	404	856	1,060	1,188	1,767	1,415	1,017	684	2,505	186	11,747
	Inner East	82	416	1,372	1,446	1,126	760	524	348	241	177	878	7,371	1,857	2,752	4,617	2,773	430	228	73	30	14	16	33	12,823
	Inner West	12	64	280	373	398	515	354	251	209	362	2,750	5,569	148	707	1,139	1,330	1,386	1,385	1,138	618	497	281	205	8,834
	Northeast	156	626	3,076	5,800	4,286	3,327	3,328	2,371	1,347	628	1,762	26,707	98	978	2,778	1,364	436	166	97	53	32	9	19	6,030
	Northwest	24	160	1,333	4,721	5,592	4,620	3,728	2,898	1,686	1,413	4,851	31,027	42	226	3,823	5,636	3,860	1,792	1,150	764	256	46	72	17,669
	Port Hills	41	113	242	528	727	1,209	1,273	1,486	1,107	1,212	4,193	12,132	43	82	467	587	401	296	163	85	98	28	50	2,299
	Southeast	74	317	1,575	2,523	2,019	1,869	1,231	832	571	265	750	12,026	159	894	1,179	615	250	141	58	13	2	-	-	3,311
	Southwest	32	83	897	3,730	7,036	5,480	4,235	3,330	2,804	1,295	1,818	30,741	64	338	5,026	3,422	1,509	518	127	34	13	21	42	11,115
Selwyn	Rolleston	-	2	373	2,473	3,322	4,917	3,345	1,361	708	316	85	16,903	-	134	210	225	128	51	37	41	62	50	117	1,055
	Lincoln	-	1	108	573	781	1,428	1,383	1,073	466	320	238	6,372	-	82	187	224	107	68	22	17	10	6	25	749
	Prebbleton & West Melton	-	-	91	309	587	683	939	425	794	917	1,057	5,802	-	15	27	31	30	16	7	8	-	2	68	205
	Darfield & Leeston	-	30	528	760	746	455	174	99	51	51	3	2,896	-	39	69	60	36	25	11	12	2	-	19	273
<b>Greater Christchurch Urban</b>		<b>430</b>	<b>1,922</b>	<b>10,984</b>	<b>26,214</b>	<b>31,041</b>	<b>31,047</b>	<b>24,281</b>	<b>16,627</b>	<b>11,140</b>	<b>7,791</b>	<b>19,950</b>	<b>181,426</b>	<b>3,095</b>	<b>6,852</b>	<b>21,127</b>	<b>18,192</b>	<b>10,535</b>	<b>6,875</b>	<b>4,708</b>	<b>2,919</b>	<b>1,740</b>	<b>3,082</b>	<b>1,280</b>	<b>80,405</b>

Figure 6.7: Dispersed Price Points 2051 – by subareas and type of dwelling (Status Quo Current Prices)

Price Points 2051		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000		\$ -	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	
Sub-Area		\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	Standalone	\$ 350,000	\$ 450,000	\$ 550,000	\$ 650,000	\$ 750,000	\$ 850,000	\$ 950,000	\$ 1,050,000	\$ 1,150,000	\$ 1,250,000	and Greater	Multi-Unit
Waimakariri	Rangiora	-	6	462	2,054	2,277	3,109	1,933	1,143	608	436	177	12,206	-	191	791	833	728	317	339	143	51	63	222	3,676
	Kaiapoi	-	12	524	1,140	1,727	1,937	1,528	714	374	715	20	8,692	12	44	131	207	162	142	81	89	22	32	124	1,045
	Woodend	-	88	358	1,208	1,481	2,290	1,543	1,111	906	651	586	10,224	11	31	62	59	44	33	42	21	3	22	88	416
	Oxford	-	39	262	351	436	319	178	107	53	75	5	1,825	-	6	-	-	19	6	13	-	-	-	9	53
Christchurch City	Central	10	30	76	137	300	179	295	709	72	41	778	2,626	665	404	852	878	570	566	386	302	168	554	186	5,532
	Inner East	82	416	1,303	1,274	1,118	756	514	317	241	177	878	7,076	1,857	2,713	1,701	876	315	145	73	30	14	16	33	7,774
	Inner West	12	64	279	367	368	387	270	214	209	267	2,750	5,186	148	705	1,083	953	590	302	202	135	86	62	205	4,469
	Northeast	156	745	4,306	7,319	4,896	3,419	3,595	2,531	1,384	711	1,762	30,824	98	972	2,508	1,274	395	153	86	47	32	9	19	5,593
	Northwest	24	161	1,416	5,198	5,905	4,760	3,768	2,929	1,758	1,559	4,851	32,329	42	214	1,859	2,253	1,479	691	336	242	121	46	72	7,355
	Port Hills	41	122	352	741	746	1,225	1,317	1,540	1,129	1,212	4,193	12,618	43	70	277	333	331	257	151	85	98	28	50	1,722
	Southeast	74	317	1,575	2,523	2,019	1,869	1,231	832	571	265	750	12,026	159	894	1,179	615	250	141	58	13	2	-	-	3,311
	Southwest	32	139	3,574	5,566	7,099	5,543	4,611	3,686	2,826	1,295	1,818	36,189	64	307	2,355	2,504	1,439	434	123	34	13	21	42	7,338
Selwyn	Rolleston	-	2	672	4,158	4,568	6,117	4,340	1,729	969	446	85	23,085	-	119	188	202	115	46	36	40	62	50	117	975
	Lincoln	-	1	184	968	1,230	1,981	1,810	1,264	608	471	238	8,754	-	74	171	207	96	61	21	16	9	6	25	687
	Prebbleton & West Melton	-	-	165	559	1,032	1,167	1,612	584	1,124	1,190	1,057	8,490	-	14	24	28	28	14	6	7	-	2	68	191
	Darfield & Leeston	-	30	564	863	865	607	278	166	90	93	3	3,559	-	37	66	56	33	24	10	11	1	-	19	258
<b>Greater Christchurch Urban</b>		<b>430</b>	<b>2,173</b>	<b>16,072</b>	<b>34,426</b>	<b>36,066</b>	<b>35,665</b>	<b>28,823</b>	<b>19,575</b>	<b>12,921</b>	<b>9,604</b>	<b>19,950</b>	<b>215,707</b>	<b>3,101</b>	<b>6,795</b>	<b>13,247</b>	<b>11,277</b>	<b>6,595</b>	<b>3,333</b>	<b>1,962</b>	<b>1,214</b>	<b>682</b>	<b>912</b>	<b>1,280</b>	<b>50,397</b>