

**BEFORE INDEPENDENT HEARING COMMISSIONERS
IN CHRISTCHURCH**

TE MAHERE Ā-ROHE I TŪTOHUA MŌ TE TĀONE O ŌTAUTAHI

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the hearing of submissions on Plan Change 14 (Housing and Business Choice) to the Christchurch District Plan

**STATEMENT OF PRIMARY EVIDENCE OF IAN ERIC MITCHELL ON BEHALF
OF CHRISTCHURCH CITY COUNCIL**

HOUSING DEMAND AND AFFORDABILITY PROJECTIONS

STRATEGIC OVERVIEW

Dated: 11 August 2023

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EXECUTIVE SUMMARY

1. My name is **Ian Eric Mitchell**. I hold the position of Director at Livingston Associates Ltd, a niche consultancy company which provides property related advice
2. I have prepared this statement of evidence on behalf of the Christchurch City Council (the **Council**) in respect of on Plan Change 14 to the Christchurch District Plan (the **District Plan; PC14**).
3. My evidence summarises detailed housing demand and affordability projections provided to Christchurch City as part of the Greater Christchurch Partnership in 2021 and 2022. These projections modelled growth in the City's households by a range of demographic characteristics including tenure, age of the household reference person and household composition. In addition, the implication of these demographic change on housing demand by dwelling typology were also modelled.
4. Christchurch City's population is projected to continue to increase from 151,100 households in 2018 to 192,600 households in 2051. Over the same timeframe the demographic characteristics of the city is projected to change with the rate of owner occupation falling from 63.5% in 2018 to 58.6% in 2051, and the proportion of households with reference people aged 65 years and over is projected to increase at a faster rate than other age cohorts. The change in the Christchurch City's demographics has implications for housing demand by dwelling typology. As the proportion of older households increases, the number of couple only and one person households is also projected to increase.
5. Over the last twenty years housing costs have increased at a faster rate than household incomes and with the projected growth in Christchurch City's population these trends are likely to continue in the short to medium term. The resulting affordability pressure is likely to impact on households' housing choices as they seek accommodation which fits within their budget.
6. These demographic trends are projected to result in an increase in demand for smaller dwellings and are likely to be reinforced by the decline in housing affordability for households both trying to rent and buy dwellings.

INTRODUCTION

7. My name is **Ian Eric Mitchell**. I hold the position of Director at Livingston Associates Ltd, a niche consultancy company which provides property related advice.
8. My evidence presents household demand projections by demographic characteristics and dwelling typology between 2018 and 2051. These projections are similar to other housing demand and need projections prepared over the last 25 years for a range of clients including Government agencies, City and District Councils, affordable housing providers, developers, and philanthropists.
9. In preparing this evidence I have referred to:
 - (a) “Housing Demand and Need in Greater Christchurch” (2021). A research report prepared for Environment Canterbury by Ian Mitchell - Livingston and Associates Limited;
 - (b) “Housing Demand in Greater Christchurch – Alternative Growth scenarios” (2023). A research report prepared for Environment Canterbury by Ian Mitchell - Livingston and Associates Limited;
 - (c) Statistics New Zealand’s subnational population growth estimates;
 - (d) Statistics New Zealand population growth estimates.
10. I am authorised to provide this evidence on behalf of the Council.

QUALIFICATIONS AND EXPERIENCE

11. I hold the qualifications of Master of Business Studies with distinction from Massey University.
12. I have been modelling housing market demand and outcomes since 2001. Over the last 22 years housing demand, affordability and needs projects have been completed in Te Tai Tokerau (Northland), Auckland Region, Tauranga/Western Bay of Plenty housing market, Greater Hamilton, South Waikato District, Napier/Hastings housing market, Kapiti Coast, Porirua City, Lower Hutt City, Wellington City, Nelson/Tasman/Marlborough, and Greater Christchurch housing markets. These studies have been undertaken for a range of organisations including Government agencies, City and District Councils, affordable housing providers, developers, and philanthropists.

13. My experience relating directly to Christchurch City's housing market includes modelling demand, affordability and housing need (2008) for Christchurch City Council (2013) for CERA/MBIE; Central Christchurch City housing demand (2015) for CERA, Housing Demand in Greater Christchurch (2017) for the Greater Christchurch partnership, and Housing Demand and Need in Greater Christchurch (2021) for Environment Canterbury/Greater Christchurch Partnership; and Housing Demand in Greater Christchurch – Alternative growth scenarios (2023) for Environment Canterbury/Greater Christchurch Partnership. In addition, housing demand, affordability and needs studies have been completed for Waimakariri District Council in 2019 and Selwyn District Council in 2020.

14. I am a member of Society of Property Researchers.

CODE OF CONDUCT

15. While this is a Council hearing, I have read the Code of Conduct for Expert Witnesses (contained in the 2023 Practice Note) and agree to comply with it. Except where I state I rely on the evidence of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

SCOPE OF EVIDENCE

16. My statement of evidence addresses the following matters:

- (a) Overview of housing demand in Christchurch City between 2021 and 2051;
- (b) Implications of the growth projections on demand by dwelling typology; and
- (c) Housing affordability and the potential demand for affordable housing options.

17. I address each of these points in my evidence below.

HOUSING DEMAND 2021 TO 2031

18. Christchurch City is New Zealand's second largest urban area. A combination of natural increase (births less deaths) and inward migration is expected to drive future population growth increasing the number of households living in the city from 151,100 in June 2018 to 192,600 in 2051.
19. Table 1 presents the projected change in the total number of households in greater Christchurch between 2018 and 2051.

Table 1: Christchurch City - Projected growth in the number of households

	Number of households	Change per annum
2018	151,100	
2020	155,000	1,950
2021	157,000	2,000
2024	162,380	1,790
2026	165,300	1,460
2031	172,400	1,420
2036	178,600	1,240
2041	184,100	1,100
2046	188,700	920
2051	192,600	780

Source: Modelled from data sourced from Greater Christchurch Partnership and Statistics New Zealand

20. These projections and the detailed projections of the demographic characteristics of this growth were based on a number of assumptions including: the population projections provided by the Greater Christchurch partnership for Christchurch City (see Appendix A); Statistics New Zealand's population and household projections for Christchurch City; and customised census data sourced from Statistics New Zealand.
21. Subsequent to the completion of my analysis Statistics New Zealand has published population estimates for Christchurch City which provide an insight into recent population growth. Table 2 compares the estimated growth in Christchurch's population relative to the Greater Christchurch Partnership's projections provided in 2021.

Table 2: Statistic New Zealand’s population estimates and Greater Christchurch Partnership’s population projections

	Stats NZ Population Estimate	Greater Christchurch Partnership's projections	Difference
2018	383,800		
2019	387,200		
2020	391,600	394,700	-3,100
2021	390,000	398,420	-8,420
2022	389,300	402,140	-12,840

Source: Statistics New Zealand and Livingston and Associates Ltd 2021 report

22. These estimates suggest Christchurch City’s population is growing at a slower rate than Greater Christchurch Partnership’s 2021 projections. Table 3 presents the composition of Statistics New Zealand’s population estimates.

Table 3: Statistics New Zealand’s population estimates

	Natural increase (Births less deaths)	Migration in and out of Christchurch City			Usually, resident Population estimate
		Net internal (Within NZ)	Net external (net overseas)	Total net migration	
Jun-18					383,800
Jun-19	1,600	-1,500	3,400	1,800	387,200
Jun-20	1,500	-2,600	5,500	2,900	391,600
Jun-21	1,700	-2,700	-560	-3,300	390,000
Jun-22	1,400	-1,200	-910	-2,100	389,300

Source: Statistics New Zealand

23. Low levels of inward migration have had an impact on Christchurch’s population growth rate resulting in slower than projected growth between June 2018 and June 2022. There are a number of reasons for this including the impact the COVID-19 pandemic restrictions had on overseas migrant arrivals.
24. Table 4 presents Statistics New Zealand’s current population projections (released in December 2022) compared to Greater Christchurch Partnership’s 2021 projections.

Table 4: Statistics New Zealand’s current population projections compared to Greater Christchurch Partnership’s 2021 projections

	Statistics New Zealand’s current usually resident population projections			Greater Chch Partnership’s projections	
	Low	Medium	High	No of people	Diff with Stats NZ’s medium
2018	383,800	383,800	383,800		
2023	380,600	390,200	399,700	405,860	15,660
2028	381,200	400,800	420,500	420,460	19,660
2033	384,100	414,200	444,500	434,060	19,860
2038	385,400	426,400	468,100	446,260	19,860
2043	385,200	437,600	491,200	457,260	19,660
2048	383,500	447,800	513,900	466,960	19,160

Source: Statistics New Zealand

25. Statistics New Zealand’s current medium projections suggest Christchurch City’s population will grow at a slower rate than implied in the Greater Christchurch Partnerships 2021 projections although they follow a similar pattern and are 19,160 people lower in 2048.
26. In conclusion, these statistics suggest that by 2048 the projections included in 2021 report are likely to overstate demand by approximately 7,700 households (assuming 2.5 people per household).
27. Table 5 presents the projected growth in the number of households living in Christchurch City by tenure between 2018 and 2051.

Table 5: The projected growth in the number of households by tenure

	Owner occupiers		Renters		Rate of owner occupation (OO)	
	Number of households	Change	Number of households	Change	% OO	% point change
2018	95,950		55,150		63.5%	
2020	97,890	970	57,130	990	63.1%	-0.4% pts
2021	98,900	1,010	58,100	970	63.0%	-0.2% pts
2024	101,418	840	60,962	950	62.5%	-0.5% pts
2026	102,700	640	62,700	870	62.1%	-0.4% pts
2031	105,500	560	67,000	860	61.2%	-0.9% pts
2036	107,900	480	70,800	760	60.4%	-0.8% pts
2041	110,000	420	74,100	660	59.8%	-0.6% pts
2046	111,600	320	77,100	600	59.1%	-0.6% pts
2051	112,900	260	79,700	520	58.6%	-0.5% pts

Source: Modelled based on data from Statistics New Zealand and Greater Christchurch Partnership

NB: Results are base ten rounded

28. Housing affordability has declined over the last twenty years as housing costs (rents and house prices) have increased at a faster rate than household incomes and with the projected growth in Christchurch City's population these trends are likely to continue in the short to medium term. The projected trend in the decline in housing affordability combined with changes in lifestyle choices are expected to continue to have an impact on the rate of owner occupation in Christchurch City.
29. Between 2018 and 2051 Christchurch City's rate of owner occupation is projected to fall by 4.9 percentage points. At the same time the number of owner occupiers is expected to increase (16,950 households or 18% between 2018 and 2051), however, renter households are expected to increase at a faster rate (24,550 households or 45% between 2018 and 2051).
30. Table 6 presents the projected change in the number of households by tenure and age of the household reference person.

Table 6: Projected change in the number of households by tenure and age of the reference person

	Less than 30 yrs	30 to 39 yrs	40 to 49 yrs	50 to 64 yrs	65 yrs & over
Owner occupiers					
2021	6,250	12,880	17,130	30,970	31,640
2024	6,090	12,540	17,200	31,110	34,480
2031	6,930	9,590	16,380	29,940	42,640
2051	5,880	11,210	15,840	27,300	52,680
Change					
2021 to 2024	-160	-340	70	140	2,840
2024 to 2031	840	-2,950	-820	-1,170	8,160
2031 to 2051	-1,050	1,620	-540	-2,640	10,040
2021 to 2051	-370	-1,670	-1,290	-3,670	21,040
Renters					
2021	10,930	13,720	11,740	11,910	9,820
2024	11,140	13,830	12,460	12,470	11,050
2031	13,610	11,590	13,120	13,510	15,130
2051	12,350	15,410	14,810	14,970	22,130
Change					
2021 to 2024	210	110	720	560	1,230
2024 to 2031	2,470	-2,240	660	1,040	4,080
2031 to 2051	-1,260	3,820	1,690	1,460	7,000
2021 to 2051	1,420	1,690	3,070	3,060	12,310

Source: Modelled based on data from Statistics New Zealand and Greater Christchurch Partnership

NB: Results are base ten rounded

31. Christchurch City is projected to experience a reduction in owner occupiers in all age groups except those aged 65 years and older and strong growth in renters across all age groups.
32. Table 7 presents the projected change in the number of households by tenure and household composition.

Table 7: Projected change in the number of households by tenure and household composition

	Couple without children	Couple with children	One parent with children	One person	Other
Owner Occupiers					
2021	37,780	24,900	8,250	24,110	3,830
2024	39,480	24,980	8,160	25,050	3,760
2031	41,740	24,830	8,070	27,290	3,560
2051	45,640	23,940	7,900	31,960	3,480
Change					
21 to 24	1,700	80	-90	940	-70
24 to 31	2,260	-150	-90	2,240	-200
31 to 51	3,900	-890	-170	4,670	-80
21 to 51	7,860	-960	-350	7,850	-350
Renters					
2021	11,400	14,600	9,990	17,090	5,040
2024	11,980	15,320	10,300	18,210	5,150
2031	13,400	16,690	10,870	20,580	5,400
2051	17,100	18,940	12,120	25,980	5,520
Change					
21 to 24	580	720	310	1,120	110
24 to 31	1,420	1,370	570	2,370	250
31 to 51	3,700	2,250	1,250	5,400	120
21 to 51	5,700	4,340	2,130	8,890	480

Source: Modelled based on data from Statistics New Zealand and Greater Christchurch Partnership

33. In summary, our projections demonstrate there is likely to be steady growth in the number of households living in Christchurch City. Both the number of owner occupiers and renters are projected to increase although renter households are expected to increase at a faster rate than owner occupiers resulting in a fall in the rate of owner occupation. Christchurch's population is projected to age, with households with reference people aged 65 years and over expected to experience the strongest growth. This is also projected to result in strong growth in the number of one person and couple only households.

34. The growth in the number of households is unlikely to be evenly distributed across Christchurch City. Different levels of development capacity, the timing of infrastructure development, household's demand preferences, and economic feasibility of developing dwellings in different locations will all impact the distribution of development within Christchurch City. For the purpose of the 2021 Report, Christchurch City was divided into ten subareas (see Appendix B for subarea definitions). The subarea projections should be viewed as a general guide as to where growth can occur as changes in policy settings, changes in the level of development capacity and infrastructure development can all impact on the level and rate of development within each subarea. The projected growth in demand by subarea is presented in Appendix C.

IMPLICATIONS OF THE PROJECTED GROWTH ON DWELLING TYPOLOGIES

35. The projected change in Christchurch City households' demographic characteristics has implications for the expected demand for different dwelling typologies. Tenure, age of the occupants and household composition all influence the type of dwelling a household is likely to occupy. A probability matrix developed from census data estimates the percentage of households (by tenure, age, and household composition) which live in different dwelling typologies is used to project the future demand.
36. These use four different dwelling typologies; standalone dwelling with two bedrooms or less; standalone dwelling with three bedrooms or more; multi-unit dwelling with two bedrooms or less; and multi-unit dwelling with three bedrooms or more. As an example, Table 8 presents the probability matrix for renter, couple only households, with the reference person aged 65 years or older.

Table 8: Probability matrix - renter couple only households with reference person aged 65 years and over

	Two bedrooms or less	Three bedrooms or more	Total
Standalone dwellings	24%	43%	67%
Multiunit dwellings	27%	6%	33%
Total	51%	49%	100%

37. These probabilities are matched with the household projections by tenure, age of the household reference person, and household composition to model the projections by typology.
38. In our 2021 report, as agreed with Christchurch City Council staff, these probabilities were held constant over the forecast period and consequently the change in proportion of different dwelling types reflects the changes in Christchurch City's demographic characteristics (by tenure age and household composition). This is called the base case scenario.
39. Table 9 presents the trend in projected household demand in Christchurch City by tenure and dwelling typology between 2021 and 2051.

Table 9: Household demand by typology and tenure

	Standalone		Multiunit	
	2- bdrm	3+ bdrm	2- bdrm	3+ bdrm
Owner occupiers				
2021	12,730	74,200	8,140	3,800
2024	13,150	75,930	8,440	3,900
2031	13,930	78,360	9,130	4,070
2041	14,930	80,840	9,970	4,270
2051	15,590	82,470	10,460	4,390
21 to 51	2,860	8,270	2,320	590
Renters				
2021	12,760	26,840	15,260	3,250
2024	13,400	28,070	16,090	3,390
2031	14,810	30,500	17,980	3,680
2041	16,620	33,170	20,340	4,000
2051	17,930	35,390	22,070	4,280
21 to 51	5,170	8,550	6,810	1,030

Source: Modelled based on data from Statistics New Zealand and Greater Christchurch Partnership

40. The demand by dwelling typology reflects the projected change in the number of households by tenure, age of the household reference person and household composition combined with the probability matrix by household demographics.
41. In 2022, the Greater Christchurch Partnership commissioned additional analysis to build on the work presented in "Housing Demand and Need in Greater Christchurch" (2021) prepared for Environment Canterbury and the Greater Christchurch Partnership by Livingston and Associates Ltd. The focus of the additional work was on modelling a number of different scenarios where the probabilities included in the dwelling typology matrix

(discussed above in para 37) are varied to take into account the evolution of Christchurch City into a denser urban environment.

42. It is important to note that demographic trends take time to be reflected in housing outcomes. High to moderate income owner occupier households also tend to over consume housing. For example, couple only households living in three bedroom or more dwellings.
43. The objective of the 2022 project was to demonstrate the impact on projected demand by increasing the probability of different types of households to live in more intensive dwelling formats. The particular focus of this project was to increase the probability of household demand for two bedroom dwellings. A number of scenarios were developed which took into account the trend in building consent activity between 2018 and 2022.
44. The analysis includes three new scenarios and compares the results of these with those published in the 2021 report. In the context of this report the 2021 report results are referred to as scenario 1 (base case). The scenarios include:
 - (a) Scenario 1: Baseline projections modelled in 2021 which assumed household propensity/probability (by tenure, age of the household reference person and household composition) for different dwelling typologies calculated as at March 2018 remain the same between 2018 and 2053;
 - (b) Scenario 2: This scenario assumes the household propensity/probability (by tenure, age of the household reference person and household composition) for different dwelling typologies calculated as at March 2018 increases over time to reflect the change in the composition of building consents over the forecast period. For example, the number and proportion of smaller and multi-unit building consents issued between 2018 and 2022 has increased. This scenario takes this trend into account when modelling typology outcomes;
 - (c) Scenario 3 uses a similar approach to scenario 2 however the modelling is based on the subareas with the total for each reflecting the sum of all the subareas; and

(d) Scenario 4 builds on the approach taken in Scenario 2 and assumes that household propensity/probability for smaller and multi-unit dwellings continues to increase at a faster rate thereby accelerating the trend to a more intensive urban environment.

45. Table 10 presents a summary of the projected demand by dwelling typology between 2021 and 2051.

Table 10: The projected growth in demand by dwelling typology between 2021 and 2051

	Standalone		Multi-unit		All dwelling typologies	
	2-bdrms	3+ bdrms	2- bdrms	3+ bdrms	2- bdrms	3+ bdrms
Scenario 1 (2021 projections)	8,030	16,820	9,130	1,620	17,160	18,440
Scenario 2	5,640	6,370	13,270	10,330	18,910	16,700
Scenario 3	7,580	16,510	10,780	1,660	18,360	18,170
Scenario 4	4,420	1,880	15,730	13,580	20,150	15,460
<i>As a % of total growth</i>						
<i>Scenario 1 (2021 projections)</i>	<i>23%</i>	<i>47%</i>	<i>26%</i>	<i>5%</i>	<i>48%</i>	<i>52%</i>
<i>Scenario 2</i>	<i>16%</i>	<i>18%</i>	<i>37%</i>	<i>29%</i>	<i>53%</i>	<i>47%</i>
<i>Scenario 3</i>	<i>21%</i>	<i>45%</i>	<i>30%</i>	<i>5%</i>	<i>50%</i>	<i>50%</i>
<i>Scenario 4</i>	<i>12%</i>	<i>5%</i>	<i>44%</i>	<i>38%</i>	<i>57%</i>	<i>43%</i>

NB: Growth scenario outcomes are presented in more detail in Livingston and Associates Ltd (2022).

46. As expected, increasing the probability for households to live in smaller dwellings increased the demand for smaller dwellings. The impact of these changes varies between the local authority areas and is influenced by each locations' demographic profiles, the projected growth in the number of households and changes in the rate of owner occupation.

47. Customised building consent data was purchased from Statistics New Zealand which categorised the data by number of new units consented, a range of different floor areas, the type of dwelling and the consents' location by calendar year. Table 11 presents a comparison between the actual consenting outcomes and the 2021 base projections to test the initial model's projections.

Table 11: Dwelling units consented between 2018 to 2022 compared to typology projections

	2 two bedrooms or less	3 bedrooms or more	Total
Consents issued 2018 to 2022	44%	56%	100%
Base projection 2021 to 2024	41%	59%	100%
Difference	3%	-3%	0%

Source: Livingston and Associates (2022) report

48. This analysis assumed any: standalone dwellings with a floor area of less than 125 square metres of floor area have a maximum of two bedrooms; apartment units consented with a floor area of 70 metres or less had a maximum of two bedrooms; and flat/townhouse units with a floor area of 100 square metres or less had a maximum of two bedrooms.

HOUSING AFFORDABILITY AND AFFORDABLE HOUSING OPTIONS

49. Housing affordability (the ability of households to either affordably¹ buy or rent a dwelling) influences the demand for different types of dwellings. In addition, investors also have an impact on housing demand particularly within new multiunit developments. Investors buy dwellings they think they can rent out and generate returns over the medium to long term and their decisions may not necessarily match the change in household demographics creating a potential mismatch.
50. Table 12 below presents the trend in median market rents, lower quartile house sale prices and median household incomes in Christchurch City, while Table 13 presents the proportion of median household income required to affordably pay rent or buy a dwelling.

¹ For a household to be able to affordably rent or buy a dwelling it is assumed that they spend no more than 30% of their gross household income on rent or servicing the mortgage required to buy a dwelling at the lower quartile house sale price.

Table 12: The trend in median market rents, lower quartile house sale prices, and median household incomes in Christchurch City

Year	Median rent	Lower quartile house price	Median household income
2001	\$171	\$126,800	\$36,500
2006	\$244	\$253,000	\$48,200
2013	\$356	\$336,000	\$65,300
2018	\$345	\$344,500	\$77,600
2020	\$400	\$380,000	\$83,100
2021	\$420	\$431,000	\$86,000
2023	\$500	\$510,000	\$89,000
Chge 96 to 21	192%	302%	144%

Source: based on data from Statistics New Zealand, MBIE and Headway Systems

Table 13: The proportion of median household income required to affordably pay rent or buy a dwelling

	% of MHI to pay median rent	% of MHI to service mortgage
2001	24%	30%
2006	26%	50%
2013	28%	35%
2018	23%	30%
2019	22%	29%
2020	25%	27%
2021	25%	30%
2023	29%	49%

Source: based on data from RBNZ, Statistics New Zealand, MBIE and Headway Systems

51. Housing unaffordability peaked in 2013 in the rental market and 2006 for first home buyers. Falling interest rates have improved first home buyer housing affordability between 2006 and 2021. However, since 2021, mortgage interest rates have increased by over 4 percentage points which has had a significant negative impact on households' ability to buy a dwelling.
52. There are several key measures of housing affordability trends including housing stress (the proportion of households paying more than 30% or more than 50% of gross household income in rent), household crowding, and the ability of private renter households to affordably buy a dwelling at the lower quartile house sale price. Table 14 presents the relative levels of renter housing stress by income bands.

Table 14: The relative level of renter housing stress in 2001 and 2018

Gross household income	2001	2013	2018
Stressed (more than 30%)			
Less than \$30,000	83%	90%	93%
\$30,001 to \$50,000	15%	71%	85%
\$50,001 to \$70,000	5%	23%	52%
\$70,001 to \$100,000	0%	7%	11%
Over \$ 100,000	0%	2%	1%
All private renters	37%	37%	41%
Severely stressed (more than 50%)			
Less than \$30,000	48%	70%	83%
\$30,001 to \$50,000	0%	13%	33%
\$50,001 to \$70,000	0%	0%	4%
\$70,001 to \$100,000	0%	1%	1%
Over \$ 100,000	0%	0%	0%
All private renters	19%	16%	20%

Source Statistics New Zealand

53. Housing stress can have a number of impacts on a household. As they spend a higher proportion of their income on housing costs they have less to spend on other items. This can lead to poverty type situations. As housing costs increase relative to household incomes households face a number of choices: do they pay an ever-increasing amount of their income in housing costs; do they crowd with other families to increase their combined income to pay the housing costs (this can lead to a number of poor social and health outcomes); do they relocate to poorer quality/cheaper housing or even shift out to other lower cost housing markets?
54. Crowding is another symptom of poor housing affordability. Table 15 presents the trend in the proportion of crowding households by tenure.

Table 15: Christchurch City – crowding by tenure

Tenure	2006	2013	2018
Owner occupiers	1.6%	1.6%	2.1%
Renters	7.1%	7.4%	8.6%
All households	3.4%	3.6%	4.0%

Source: Statistics New Zealand

55. The proportion of crowded households increased for all tenures between 2006 and 2018 particularly for rented households.
56. The ability of private renters to affordably buy a dwelling at the lower quartile house sale price has also declined. Table 16 presents the trend in

the number and proportion of Christchurch’s private renter households unable to affordably buy a dwelling at the lower quartile house sale price.

Table 16: Private renters unable to affordably buy at the lower quartile house sale price

Tenure	2018	2020	2023
Number of renters unable to affordably buy	32,900	34,200	51,100
Number of renters unable to affordably buy as a % of all renters	60%	60%	83%
Number of renters unable to affordably buy as a % of all households	22%	22%	32%

Source: Modelled based on data from Statistics New Zealand and Greater Christchurch Partnership

57. The ability of private renters to be able to affordably buy a dwelling at the lower quartile house sale price has declined. Increases in dwelling sale prices and interest rates have more than offset any increase in household incomes.
58. The decline in housing affordability for private renters and potential first home buyers creates the opportunity for affordable housing providers to provide affordable (subsidised) rents to renter households or subsidised shared equity opportunities for first home buyers. These programmes typically target working households who just do not earning sufficient income to be able to affordably meet their housing costs. Table 17 presents the number of private renter households that would be able to affordably buy a dwelling assuming a 25% shared equity programme, or affordably rent if rents charged were subsidised by 25%.

Table 17: The potential number of households that would benefit from an affordable housing programme in Christchurch City.

	Increase in households that can affordably rent	Number of households that would benefit from a shared equity scheme
2018	7,270	6,410
2020	6,230	6,340
2023	8,490	5,080

Source: Modelled based on data from Statistics New Zealand and Greater Christchurch Partnership

59. These estimates assume a market rent of \$500 per week and a house price of \$700,000. The rental subsidy is assumed to be 25% and the shared equity component left in by the affordable housing provider is assumed to be 25%. These estimates demonstrate that a 25% rental subsidy would

increase the number of private renter households able to affordably pay their rent by between 6,230 and 7,490. A shared equity programme would allow an additional 6,340 and 5,080 private renter households to affordably buy a dwelling priced at \$700,000.

CONCLUSION

60. In summary, Christchurch City's population is now projected continue to increase albeit at a slightly slower rate than originally projected in 2021. Between 2021 and 2051, the rate of owner occupation is expected to decline and the proportion of households with reference people aged 65 years and over is projected to increase at a faster rate than other age cohorts. The change in the Christchurch City's demographics has implications for housing demand by dwelling typology. As the proportion of older households increases the number of couple only and one person households is also projected to increase.
61. Over the last twenty years housing costs have increased at a faster rate than household incomes and with the projected growth in Christchurch City's population these trends are likely to continue in the short to medium term. The resulting affordability pressure is likely to impact on households' housing choices as they seek accommodation which fits within their budget.
62. These demographic trends are projected to result in an increase in demand for smaller dwellings and are likely to be reinforced by the decline in housing affordability for households both trying to rent and buy dwellings.

Date: 11 August 2023

Ian Eric Mitchell

Appendix A: Greater Christchurch Partnership's population projections

Table 18: GCP population projections

Time frame	June Year	Christchurch city' usually resident population
Estimate	2020	394,700
Starting	2021	398,420
Short Term	2022	402,140
	2023	405,860
	2024	408,780
Medium Term	2025	411,700
	2026	414,620
	2027	417,540
	2028	420,460
	2029	423,180
	2030	425,900
	2031	428,620
Long Term	2032	431,340
	2033	434,060
	2034	436,500
	2035	438,940
	2036	441,380
	2037	443,820
	2038	446,260
	2039	448,460
	2040	450,660
	2041	452,860
	2042	455,060
	2043	457,260
	2044	459,200
	2045	461,140
	2046	463,080
2047	465,020	
2048	466,960	
2049	468,900	
2050	470,840	
2051	472,780	

Appendix B: Christchurch City Subarea definitions

Table 19: Subarea definitions

Christchurch City subareas	
Subarea	Statistics New Zealand's - SA2 names
Banks Peninsula	Banks Peninsula South Eastern Bays-Banks Peninsula Akaroa Harbour Inlet Akaroa Harbour Akaroa
Central City	Hagley Park Christchurch Central-West Christchurch Central-North Christchurch Central Christchurch Central-East Christchurch Central-South
Inner-East	Sydenham South St Albans North St Albans East Edgware Richmond South (Christchurch City) Linwood West Sydenham Central Sydenham West Lancaster Park Phillipstown Sydenham North
Inner-West	Riccarton South Riccarton East St Albans West Addington North Holmwood Merivale Mona Vale Riccarton Central Tower Junction Addington West Addington East
Lyttelton Harbour	Teddington Diamond Harbour Port Hills Governors Bay Lyttelton Inlet Port Lyttelton
NorthEast	Brooklands-Spencerville Styx Malvern Richmond North (Christchurch City) Waimairi Beach Wainoni Queenspark Redwood North

	<p>Redwood East Northcote (Christchurch City) Prestons Waitikiri Mairehau North Rutland Mairehau South Shirley West Travis Wetlands Shirley East Parklands Burwood Dallington Otakaro-Avon River Corridor North Beach Avondale (Christchurch City) Avonside Rawhiti Linwood North Aranui</p>
NorthWest	<p>McLeans Island Papanui East Harewood Deans Bush Belfast East Bishopdale West Christchurch Airport Yaldhurst Clearwater Belfast West Northwood Russley Regents Park Hawthornden Bishopdale North Casebrook Bryndwr South Burnside Park Marshland Avonhead North Bryndwr North Redwood West Avonhead West Bishopdale South Burnside Papanui North Avonhead East Avonhead South Northlands (Christchurch City) Papanui West Ilam North Jellie Park Ilam South</p>

	<p>Ilam University Strowan Fendalton Bush Inn</p>
Port Hills	<p>Kennedys Bush Westmorland Cashmere West Huntsbury Cashmere East Hillsborough (Christchurch City) Woolston South Brookhaven-Ferrymead Heathcote Valley Mount Pleasant Redcliffs Clifton Hill Sumner</p>
SouthEast	<p>Ensors Waltham Bexley Linwood East Charleston (Christchurch City) Woolston North New Brighton Woolston West Bromley South Beckenham Bromley North St Martins Opawa Woolston East South New Brighton</p>
SouthWest	<p>Paparua Wharenui Oaklands East Sockburn North Templeton Islington Hornby West Broomfield Islington-Hornby Industrial Hei Riccarton Racecourse Hornby Central Hornby South Awatea North Upper Riccarton Sockburn South Wigram North Wigram West Awatea South Riccarton West Middleton</p>

	Wigram South
	Wigram East
	Oaklands West
	Halswell West
	Broken Run
	Hillmorton
	Aidanfield
	Hoon Hay West
	Spreydon West
	Halswell North
	Spreydon North
	Hoon Hay East
	Halswell South
	Spreydon South
	Somerfield East
	Somerfield West
	Hoon Hay South

Appendix C: Subarea demand projections

Table 20 presents the projected growth in the number of households between 2021 and 2051 by subarea.

Table 20 The projected growth in the number of households between 2021 and 2051 by subarea.

Christchurch City's Subarea	2021	2024	2031	2051	21 to 51
Banks Peninsula	1,550	1,580	1,670	1,720	170
Central City	4,510	5,610	6,690	9,890	5,380
Inner East	12,960	13,230	13,770	14,440	1,480
Inner West	8,280	8,450	8,890	9,630	1,350
Lyttelton Harbour	2,670	2,720	2,840	2,930	260
NorthEast	31,280	32,090	33,990	37,730	6,450
NorthWest	34,310	35,200	37,270	41,310	7,000
Port Hills	12,150	12,380	12,900	13,350	1,200
SouthEast	14,930	15,150	15,610	15,960	1,030
SouthWest	34,390	35,980	38,850	45,670	11,280

Table 21 presents the projected trend in household demand by dwelling typology between 2021 and 2051 by subareas.

Table 21: The projected trend in household demand by dwelling typology between 2021 and 2051 by subareas.

	2021	2024	2031	2041	2051	21 to 51
Standalone dwellings						
Banks Peninsula	1,510	1,540	1,630	1,700	1,660	150
Central City	1,670	2,110	2,550	3,160	3,850	2,180
Inner-East	6,830	7,000	7,220	7,430	7,610	780
Inner-West	4,810	4,960	5,190	5,450	5,640	830
Lyttelton Harbour	2,630	2,680	2,790	2,900	2,880	250
NorthEast	27,450	28,140	29,540	31,200	32,420	4,970
NorthWest	29,050	29,720	31,310	33,070	34,260	5,210
Port Hills	11,150	11,380	11,810	12,080	11,920	770
SouthEast	12,070	12,230	12,490	12,610	12,540	470
SouthWest	29,220	30,430	32,720	35,610	38,330	9,110
Total	126,390	130,190	137,250	145,210	151,110	24,720
Multi-unit dwellings						
Banks Peninsula	20	20	20	20	20	0
Central City	2,840	3,510	4,200	5,130	6,150	3,310
Inner-East	6,130	6,260	6,570	6,840	6,830	700
Inner-West	3,470	3,540	3,740	3,920	3,970	500
Lyttelton Harbour	40	40	50	50	50	10
NorthEast	3,850	3,990	4,510	5,050	5,320	1,470
NorthWest	5,310	5,540	5,980	6,610	7,100	1,790
Port Hills	1,060	1,070	1,150	1,300	1,340	280
SouthEast	2,880	2,920	3,100	3,320	3,430	550
SouthWest	5,170	5,510	6,120	6,890	7,380	2,210
Total	30,770	32,400	35,440	39,130	41,590	10,820