

Greater Christchurch Housing Capacity Assessment - Report 1: An Overview of Housing Demand

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Executive Summary

Policy B1 of the NPS-UDC requires local authorities to on at a least a three-yearly basis, carry out a housing development capacity assessment that (inter alia)"...a) estimates the demand for dwelling, including the demand for different types of dwellings, locations and price points, and ...c) the supply of development capacity to meet that demand, in the short, medium and long-terms; and assess interactions between housing and business activities and their impacts on each other". Policy B2 directs the assessment to use demand information, including that on demographic change, by using the most recent Statistics New Zealand population projections as a starting point together with market indicator information (as required under policies B6 and B7). The Housing Demand Assessment (HAD) will form the benchmark for determining if there is a sufficient feasible supply of housing, and whether this supply is of the appropriate type, at the right price point and in the most appropriate locations.

A comprehensive report on the demand profile for housing in Greater Christchurch was commissioned as part of the capacity assessment¹. The report disaggregates the Greater Christchurch and territorial authority data into thirteen sub-market areas and projects demand for housing in different groups within the population (age, household composition, income); different household groups translates into demand for different housing typologies (stand-alone homes; multi-unit dwellings; and apartments); private owner occupier dwellings, private rented dwellings, and social housing (rented); and housing typologies as distributed across broad locations and price points. Key findings of the demand assessment together with other research and information are as follows.

Proportionally, Christchurch City is projected to accommodate 54% of the total growth to 2048, with 27% occurring in Selwyn district sub-areas and 19% in the Waimakariri district sub-areas. The sub-areas which are projected to experience the highest percentage growth rates are those in include Selwyn and Waimakariri districts, and the south-west sub area in Christchurch. The level of owner occupation like the rest of the country has declined in recent decades. This trend is expected to continue, particularly in younger age groups, where the rate of owner occupation will reduce from 67.9% as at 2013 (i.e. the percentage of households that owned their own home) to 60.7% by 2048, a 7.2% fall. Conversely the number of renter households will rise significantly over the same period.

Greater Christchurch's aging population will be reflected in significant growth in the number of one person and couple only households, resulting in a significant increase in the demand for smaller and multi-unit dwellings. Multi-unit demand is typically for units with fewer bedrooms. Renters have and will continue to have a higher propensity to rent multi-unit dwellings relative to standalone dwellings. Of the total projected demand from owner occupiers it is estimated 66% of this will be for standalone dwellings (predominantly with three or more bedrooms). Similarly, of the total renter household demand it is estimated that 56% will be for standalone dwellings.

Total 'renter housing need' has been assessed by encapsulating those financially stressed private renter households, together with those who are homeless or living in crowded dwellings, with those whose housing requirements are met by social, third sector and emergency housing providers. The relative level of housing need is expected to increase across Greater Christchurch, but this demand will be significantly greater in Christchurch City. There will be significant challenges ahead for both public agencies and the private development market to meet this particular type of housing demand. Social housing assessment for example project that there will be demand for 200 to 230 additional social housing dwellings per annum if the current ratio of social renter dwellings to total housing need is maintained.

Information gathered further indicates that demand for social housing, and certainly lower cost housing, may be proportionally higher for some ethnicities. The 2013 Census data shows that 74% of the Maori population does not own a dwelling, and other ethnic groups such as Pacific and Middle Eastern/Latin American/African (MELAA) are also disproportionately represented. Maori, Pacific, Asian and MELAA groups are also disproportionately represented in terms of household crowding.

Ngā Papatipu Rūnanga of Canterbury Ngāi Tahu currently have aspirations to have more members living in suitable housing on current and former Māori Reserve lands owned, or formerly owned by the members. It is envisaged that Papakainga/Kāinga-Nohoanga provisions will generate some demand for usage on currently owned lands, and generate demand for acquisition of land-packages within the former reserves extents. An

¹ Housing Demand in Greater Christchurch (November 2017) prepared by Livingston Associates

estimated 1260 hectares of lands within former reserves extents may be made available for Papakainga/Kāinga-Nohoanga style-living, i.e. whānau groups, cluster housings, community centres, hostels, businesses and other developments. Such provisions might also extend to lands and properties purchased by the iwi then devolved to Papatipu Rūnanga.

Further in regard to resident's preference for particular locations, demand for new neighbourhoods (i.e. greenfield development) has always been consistently strong in Christchurch City, and in more recent years within the Selwyn and Waimakariri districts. Conversely, the growth (and therefore assumed demand) for new housing with the existing urban area (i.e. through infill and intensification), has been lower and faced a notable drop after the 2010 and 2011 earthquakes. There is however evidence that housing demand for Central City living is increasing. Whilst after the earthquakes the number of people living within the central city decreased significantly from 7650 to 4900, since 2014 there has been an increased interest in residents wanting to live in the central city, and in 2016 the central city population had increased to 5,600.

More detailed survey work is however required to better understand housing demand in Greater Christchurch, in particular with regard to the choices people make and drivers for these decisions, now and into the future This will not only help the Greater Christchurch Partnership better understand household preferences, but it will also engage residents and give them the opportunity to understand and contribute to the development of the Future Development Strategy.

Definitions

The following table defines commonly used acronyms and abbreviations in this document.

Term	Definition
CCC	Christchurch City Council
CEDS	Christchurch Economic Development Strategy
CRPS	Canterbury Regional Policy Statement
CUA	Christchurch Urban Area
Development Capacity	As defined in the NPS-UDC, means:
	in relation to housing and business land, the capacity of land intended for urban development based on:
	a) the zoning, objectives, policies, rules and overlays that apply
	to the land, in the relevant proposed and operative regional
	policy statements, regional plans and district plans; and
	b) the provision of adequate development infrastructure to
	support the development of the land."
Development	As defined in the NPS-UDC, means:
Infrastructure	network infrastructure for water supply, wastewater, stormwater, and land transport as defined in the Land Transport Management Act 2003, to the extent that it is controlled by local authorities.
GC	Greater Christchurch
GIS	Geographical Information System
HH/Ha	Households per Hectare
Infill	Is the addition of a dwelling, generally to the back of a site, whilst keeping the original dwelling.
Intensification	As defined in the CRPS, means: An increase in the residential household yield within existing areas. It includes infill and comprehensive redevelopment.
LTP	Long Term Plan
LURP	Land Use Recovery Plan
NPS-UDC	National Policy Statement on Urban Development Capacity
NZTA	NZ Transport Authority
Other Infrastructure	As defined in the NPS-UDC, means:
	a) open space;
	b) community infrastructure as defined in the Local
	Government Act 2002;
	c) land transport as defined in the Land Transport
	Management Act 2003, that is not controlled by local
	authorities;
	d) social infrastructure such as schools and healthcare;
	e) telecommunications as defined in the Telecommunications Act 2001;
	f) energy; and
	g) other infrastructure not controlled by local authorities.
UDS	Urban Development Strategy
Version	

1. Overview and Methodology

1.1 NPS-UDC Requirements

The National Policy Statement on Urban Development Capacity (NPS-UDC) applies a number of policies specific to medium and high growth urban areas. The Christchurch Urban Area (CUA) is a high growth area and includes most of the urbanised land within the boundaries of Christchurch City Council, part of Selwyn District Council, and part of Waimakariri District Council. The application of these policies is not however restricted to the boundaries of the urban area, and for the purposes of this report the urban area being assessed is that which is defined as Greater Christchurch².

Policy B1 of the NPS-UDC requires local authorities to on at a least a three-yearly basis, carry out a housing development capacity assessment that (inter alia)"...a) estimates the demand for dwelling, including the demand for different types of dwellings, locations and price points, and ...c) the supply of development capacity to meet that demand, in the short, medium and long-terms; and assess interactions between housing and business activities and their impacts on each other". Policy B2 directs the assessment to use demand information, including that on demographic change, by using the most recent Statistics New Zealand population projections as a starting point together with market indicator information (as required under policies B6 and B7).

This report, together with a supporting demand assessment prepared by Livingston and Associates Limited, provide a demand assessment to meet the requirements of policies B1 and B2. It follows the direction and approaches contained within the *National Policy Statement on Urban Development Capacity: Guide to Evidence and Monitoring.* Where the demand assessment deviates or goes beyond the recommended approaches under this guide, this is documented and a rationale provided.

The Housing Demand Assessment (HAD) will form the benchmark for determining if there is a sufficient feasible supply of housing, and whether this supply is of the appropriate type, at the right price point and in the most appropriate locations (being requirements of other policies including g PB3 to PB5). Estimated changes in demand projected over time will help inform the planning response of Council's to ensure that housing supply adequately meets the patterns of demand in the future.

The guidance contained within the *National Policy Statement on Urban Development Capacity: Guide to Evidence and Monitoring,* suggests that the assessment shall provide the following (Section 2.3 - underline emphasis added):

- 1. A <u>projected number of dwellings</u> required in the <u>short, medium and long term</u> for the <u>study area</u> and <u>the constituent local authorities.</u>
- 2. Estimates either side of this projection, with discussion of the key drivers of these estimates.
- 3. A quantitative documentation of the <u>current consumption patterns of different household</u> <u>and/or population groups</u> with respect to <u>dwelling type</u>, <u>location and price</u>.
- 4. Information and analysis about potential <u>unmet demands</u> in the current housing market.
- 5. Information and analysis about <u>potential future broad demand patterns</u> of different household and /or population groups with respect to <u>dwelling type</u>, <u>location and price</u>.
- 6. A description of the <u>methods and data</u> used to derive these assessments and the limit of these.

Livingstone and Associates Limited were engaged to prepare a report on the current and future housing demand in Great Christchurch, to assist with the obligations under the NPS-UDC. The Livingstone report provides a detailed analysis of the housing demand in Greater Christchurch (GC) by a range of demographic characteristics, including tenure, age, household composition and typology, and in accordance with the requirements of the NPS, the demand estimates have been presented for the following timeframes, short term (0 to 3 years), medium term (4 to 10 years), and long term (11 to 31 years). The Livingstone report should be read in conjunction with this overview report and its key findings have been summarised in section 2 of this report.

² The boundaries of the Greater Christchurch area is set out under the Canterbury Regional Policy Statement on Map A. It is also defined in the CER Act as "…the districts of Christchurch, Selwyn District and Waimakriri District Councils, and the coastal marine area adjacent to these districts. Metropolitan greater Christchurch, as referenced in the LURP, is a small area comprising the city and the towns and rural areas between Rangiora and Rolleston and Lincoln".

Section 3 of this report provides an overview of the current consumption patterns of different household and/or population groups with respect to dwelling type, location and price. Section 4 of this report provides information and discussion of the potential future broad demand patterns, drawn from other known research and studies. Section 5 identifies what future work is required to better understand housing demand, in particular having closer regard to the changing composition of the population, social needs, financial constraints, market opportunities and constraints, and improving the accuracy and limitations that are inevitably faced when estimating housing demand over a 30 year period.

1.2 Methodology

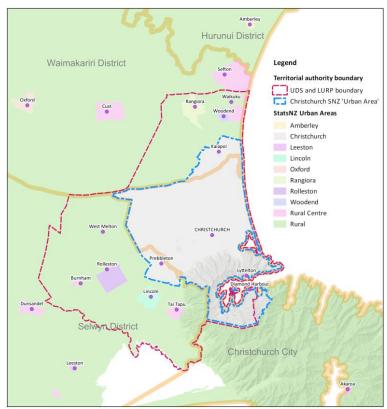
The methodology for undertaking the assessment of housing demand is contained in a supporting report titled "Greater Christchurch Urban Development Capacity Assessment – Housing Capacity Assessment Methodology, dated 23 February 2018" and within the supporting demand assessment undertaken by Livingston and Associates Limited (refer to section 2 of this report). Following are excerpts from the methodology that have been summarised to provide important context for this demand report.

As suggested by the NPS-UDC, the starting point for the demand assessment is the growth projections calculated by StatsNZ. The Greater Christchurch Partnership have agreed, based on historical trends and take-up rates, that for Christchurch City the medium growth projections be used and for the districts of Selwyn and Waimakariri the medium-high Growth projections be used. The NPS UDC guidance suggests that Local Authorities also need to consider the implications on demand of population projections being under and over that projected by StatsNZ. For Christchurch City the *under* projection shall be medium-low and the *over* projection shall be Medium-High and for SDC and WDC the *under* projection shall be medium and the *over* projection shall be High. The Livingston and Associates Limited report incorporates a section that outlines the results of this sensitivity testing.

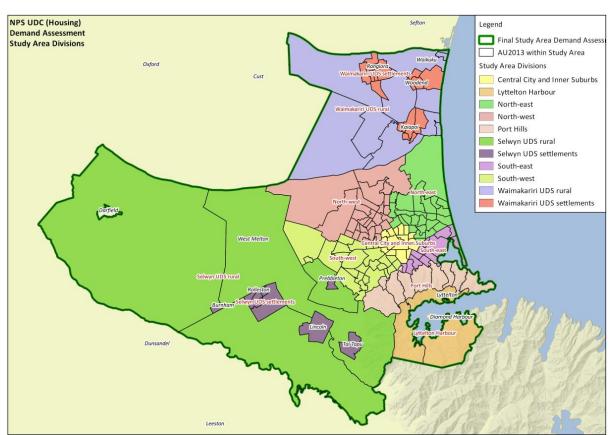
The Christchurch Urban Area (CUA) is defined as a high growth urban area under the NPS-UDC. The CUA comprises Christchurch City (including the Lyttelton Harbour basin settlements) but excludes the less urbanised parts of Banks Peninsula. The CUA also encompasses the closely located urbanised areas of Prebbleton (being within the SDC), Kaiapoi and Pines Beach (being within the WDC). Given the inclusion of these additional areas, all the high growth related policies of the NPS-UDC apply to all three local authorities (CCC, WDC and SDC). The UDS boundary encompasses most of the StatsNZ Christchurch Urban Area (refer to Map 1) that qualifies as a high growth area. As the UDS area is where the bulk of the historic population growth has occurred and where most future growth is anticipated to occur, the demand assessment has been applied to the UDS bounded area.

The NPS UDC: *Guide on Evidence and Monitoring*, provides flexibility in how information is disseminated and allows a *broad brush* approach. Specifically in regards to locations, divisions can be based on lifestyle areas (e.g. CBD, suburban) and/or simple direction-based divisions. The approach agreed by the UDS partner local authorities is for a mixed approach. This approach divides Christchurch City into the following nine sub-areas, the Central City, closely surrounded by the Inner-East and Inner-West areas. Next, the more suburban areas separated into North-East, South-East, South-West, and North-West, and finally, recognising their distinct characteristics, the Port Hills and Lyttelton Harbour areas. Selwyn and Waimakariri Districts are divided between settlements within the UDS boundary and rural land within the UDS boundary. All divisions shown on Map 2 are constructed from StatsNZ Area Units 2013.

A number of issues were encountered in using the Stats NZ Area Unit as the basis of the housing demand analysis, which are documented in the methodology section. Many of these issues will be addressed in advance of the next NPS Capacity Assessment as Stats NZ finalise the recently developed SA2 categories. This will ensure that that the projections used as the basis for quantifying housing demand for future assessments will better align with the urban boundaries of townships contained within the GC boundary.



Map 1: Comparison of Territorial Authority boundaries, the UDS/LURP boundary and the Stats NZ Urban Areas boundaries.



Map 2: Study Area and divisions (West Melton to be defined)

2. Assessment Results from the Livingston and Associates Housing Demand Assessment

2.1 Overview

The Livingstone and Associates Limited demand assessment considers the following aspects of housing demand in Greater Christchurch:

- Demand for housing in different groups within the population (age, household composition, income)
- Demand in different household groups translates into demand for different housing typologies (Standalone homes of two, three and four beds; multi-unit two, three and four beds; and apartments)
- The typologies are divided between private owner occupier, private rented, and social housing rented
- Demand for housing typologies is distributed across broad locations and price points

In undertaking this analysis, a number of important assumptions were made (refer to Livingston and Associates Limited Housing Demand in Greater Christchurch, Appendix 2 Overview of modelling methodology). These include:

- Christchurch City's population increases in line with Statistics New Zealand's medium growth scenario.
 Waimakariri and Selwyn Districts' populations increase in line with Statistics New Zealand's medium high population growth scenario;
- Underlying change in age structure and family composition changes associated with Statistic New Zealand's population projections hold true;
- There are no significant unexpected changes to greater Christchurch's and the National economies over the projection period;
- There are no significant changes to the institutional and structural settings in the local housing markets.

The methodology applied by Livingston Associates Limited relies upon Stats NZ unconstrained population projections where externalities such as planning interventions, capital works improvements, Government policy, unforeseen global and social change and future technologies are unable to be factored into the 30 year projections. This differs from the Selwyn and Waimakariri Capacity for Growth Models developed by Market Economics Limited to inform the respective District Plan Reviews, where housing demand is constrained based on the amount of zoned and serviced land available within each township. It is also important to note that the projections are subject to modelling variations where the difference between the actual and modelled demand estimates become increasingly uncertain over time. Following is a summary of the key results of this assessment. The results have been illustrated in both table and graph format to assist readability.

2.2 High Level and Sub-Area Demand Estimates

Table 2.2.1 and Graph 2.2.1 present the projected change in the total number of households living in Waimakariri, Christchurch City and Selwyn GCP areas from 2017³ to 2048.

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³ The number of households as at 2017 is modelled from the population and household projections available from Statistics New Zealand although with their population estimates available at the time the report was written.

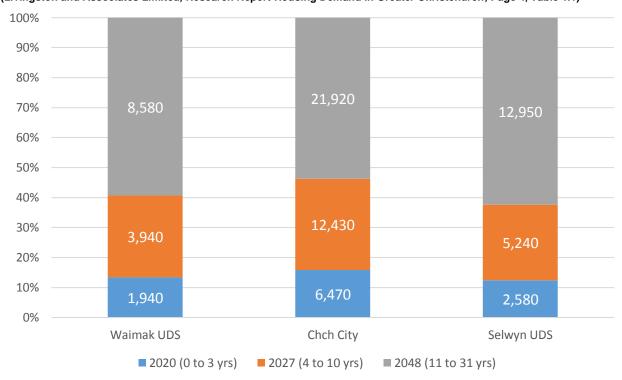
Table 2.2.1: The projected number of households in Waimakariri, Christchurch City and Selwyn UDS areas 2017 to 2048

(Model based on data from Statistics New Zealand)

Year	Number of households			Total change in the number of households			Annual average change in households		
	Waimak UDS	Chch City	Selwyn UDS	Waimak UDS	Chch City	Selwyn UDS	Waimak UDS	Chch City	Selwyn UDS
2017	18,080	147,020	16,590						
2020 (0 to 3yrs)	20,020	153,490	19,170	1,940	6,470	2,580	650	2,160	860
2027 (4 to 10yrs)	23,960	165,920	24,410	3,940	12,430	5,240	560	1,780	750
2048 (11 to 31yrs)	32,540	187,840	37,360	8,580	21,920	12,950	410	1,040	620
June 2017 – June 2048	+14,460	+40,820	+20,770						

Graph 2.2.1: Projected household demand in Waimakariri, Christchurch City and Selwyn UDS areas 2017 to 2048

(Livingston and Associates Limited, Research Report Housing Demand in Greater Christchurch, Page 4, Table 1.1)



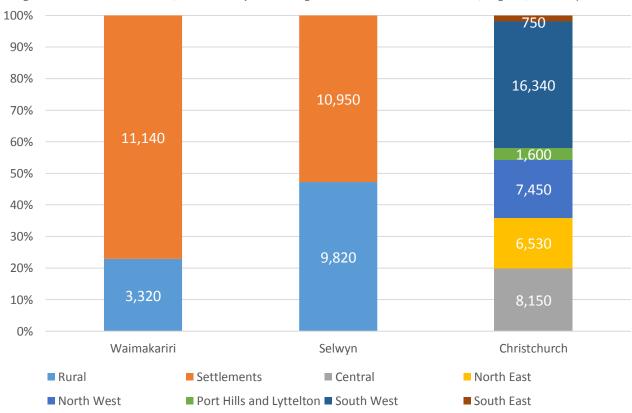
When broken down into the sub-markets within the Greater Christchurch area, the projections indicate that:

- Selwyn rural and settlements are expected to grow by 140% (or 9,820 households) and 114% (or 10,950 households) respectively.
- Waimakariri rural and settlement submarket are projected to experience strong growth increasing by 71% (or 3,320 households) and 83% (or 11,140 households) respectively.
- Christchurch south west submarket is projected to be the fastest growing sub market in Christchurch City increasing by 40% (or 16,340 households) between 2017 and 2048.
- Christchurch City submarkets are projected to accommodate 54% of the total growth between 2017 and 2048 with 27% occurring in Selwyn UDS submarkets and the balance 19% being located in Waimakariri UDS submarkets.

Table 2.2.2 Projected growth in households by submarket between 2017and 2048 (Model based on data from Statistics New Zealand)

	Waimakariri Selwyn UDS UDS			yn UDS	Christchurch City UDS						
	Rural	Settlemts	Rural	Settlemts	Central	North East	North West	Port hills	South East	Lyttelton	South West
2017	4,670	13,410	7,000	9,590	21,540	30,910	35,280	9,560	14,870	2,180	32,680
2020	5,080	14,940	8,000	11,170	23,120	31,980	36,240	9,810	15,160	2,230	34,950
2027	6,000	17,960	10,440	13,970	25,840	33,990	38,460	10,280	15,640	2,330	39,380
2048	7,990	24,550	16,820	20,540	29,690	37,440	42,730	10,900	15,620	2,440	49,020
Total hh growth between 2017 to											
2048	+3320	+11,140	+9,820	+10,950	+8150	+6,530	+7,450	+1,340	+750	+260	+16,340

Graph 2.2.2 Projected growth in households by submarket between 2017 and 2048 (Livingston and Associates Limited, Research Report Housing Demand in Greater Christchurch, Page 25, Table 3.6)



The level of owner occupation like the rest of the country has declined and this trend is expected to continue, particularly in younger age groups. The rate of owner occupation will erode from 67.9% as at 2013 (i.e. the percentage of households that owned their own home) to 60.7% by 2048, a 7.2% fall. Conversely the number of renter households will rise. The demand for renter households between 2017 and 2048 is projected to be:

- up by 143% in Waimakariri rural submarket,
- up by 130% in the Waimakariri settlements submarket,
- up by 237% in Selwyn rural submarket, and
- up by 216% in the Selwyn settlement submarket; and
- Demand will be strong across all Christchurch submarkets, in particular Christchurch Central, North-East, North-West and South-West.

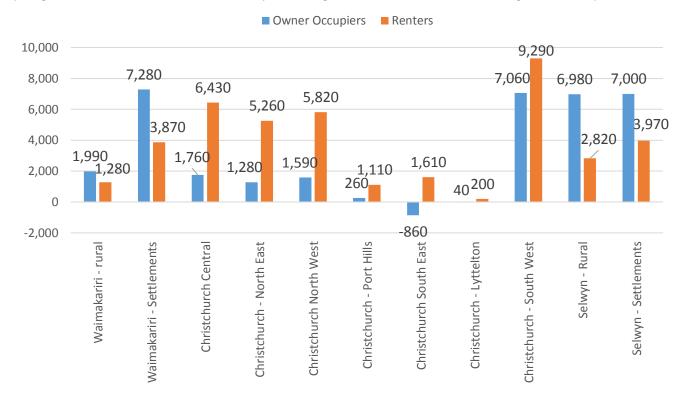
Table 2.2.3: The projected change in demand (growth and/or decline) in the number of households by tenure and submarket

(Model based on data from Statistics New Zealand)

	Owner Occupiers 2017 to 2048	Renters 2017 to 2048
Waimakariri - rural	+1,990	+1,280
Waimakariri - Settlements	+7,280	+3,870
Christchurch Central	+1,760	+6,430
Christchurch - North East	+1,280	+5,260
Christchurch North West	+1,590	+5,820
Christchurch - Port Hills	+260	+1,110
Christchurch South East	-860	+1,610
Christchurch - Lyttelton	+40	+200
Christchurch - South West	+7,060	+9,290
Selwyn - Rural	+6,980	+2,820
Selwyn - Settlements	+7,000	+3,970

Graph 2.2.3: The projected change in demand (growth and/or decline) in the number of households by tenure and submarket

(Livingston and Associates Limited, Research Report Housing Demand in Greater Christchurch, Page 26, Table 3.7)



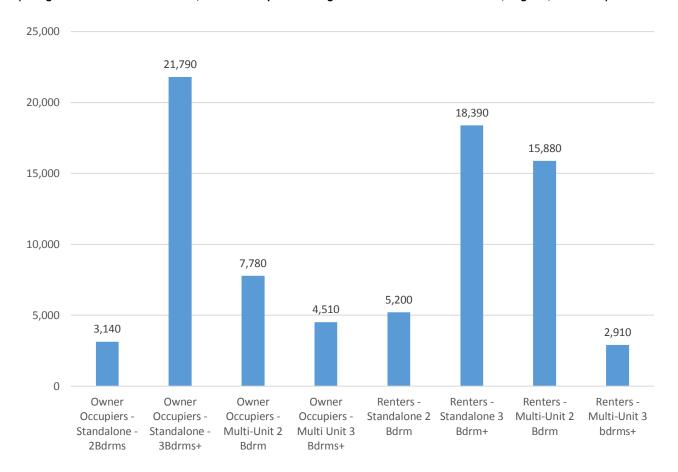
2.3 Estimated Housing Demand by Typology

In terms of housing typology, the report identified the following key points:

- Greater Christchurch's aging population will be reflected in significant growth in the number of one
 person and couple only households, resulting in a significant increase in the demand for smaller and
 multi-unit dwellings.
- In addition, demand for 200 to 230 additional social housing dwellings per annum will be required if the current ratio of social renter dwelling to total housing need is maintained.
- Standalone dwellings account for 66% of the projected growth from owner occupiers and 56% of the renter household growth. Demand for standalone dwellings is predominately for units with three or more bedrooms.
- Multi-unit demand is typically for units with fewer bedrooms. Renters have a higher propensity to rent
 multi-unit dwellings relative to standalone dwellings, however this may be influenced by other factors
 such as lower rents and proximity to central city.

Graph 2.3.1: Implications of the household projections on demand by dwelling typology and tenure in Greater Christchurch between 2017 and 2048

(Livingston and Associates Limited, Research Report Housing Demand in Greater Christchurch, Page 32, Table 3.11)



2.4 Estimated Housing Demand by Price

In terms of housing demand by price, the report states that:

- The rate of owner occupation will erode to 60.7%, a 7.2% point fall, between 2013 and 2048. Conversely, the number of renter households are projected to increase by 41,660, or 69%, over the same time.
- For owner-occupied dwellings the strongest long term growth is predicted to occur in the Waimakariri rural and settlements (up 52% and 70% respectively) and Selwyn rural and settlement (up 120% and 90% respectively) submarkets.
- Christchurch central and south west submarkets are also expected to grow by 22% and 33% respectively.
- Renter households are projected to experience stronger growth in all submarkets, the strongest sub-areas being Waimakariri rural and settlements (up 143% and 130% respectively) and Selwyn rural and settlement (up 237% and 216% respectively), due to the rapid rise in house prices relative to household incomes⁴.

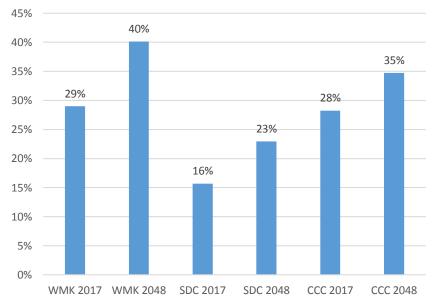
An assessment was also undertaken to estimate the demand for affordable housing, and in doing so provide insight into how the requirement for social housing might change over the next 30 years. Total 'renter housing need' is assessed by encapsulating those financially stressed private renter households, together with those who are homeless or living in crowded dwellings, with those whose housing requirements are met by social, third sector and emergency housing providers. The relative level of housing need is expected to increase across Greater Christchurch, but it will be significantly greater in Christchurch City. This is a reflection of the low income renters and social renters living in the city and projected to continue to live in the city, comparative to the outer districts. Between 2017 and 2048 total housing need (i.e. by those aforementioned groups) is

⁴ Between 1991 and 2013, median house prices increased 334% in Waimakariri District, 380% in Christchurch City and 547% in Selwyn District. Over the same time period household incomes increased by approximately one third of the rate (121% in Waimakariri District, 110% in Christchurch City, and 140% in Selwyn District).

projected to increase by 20,970 household or 63% in the Christchurch's UDS submarkets, 3,030 households or 256% in Selwyn's UDS submarkets and 2,910 households (or 141%) in Waimakariri UDS submarkets. This analysis is significant in highlighting the huge challenges (and arguably opportunities) that are ahead for both the public and private development market to meet this particular type of housing demand. Graphs 2.5 and 2.6 further illustrate the changing trend in regard to housing affordability and renter housing need.

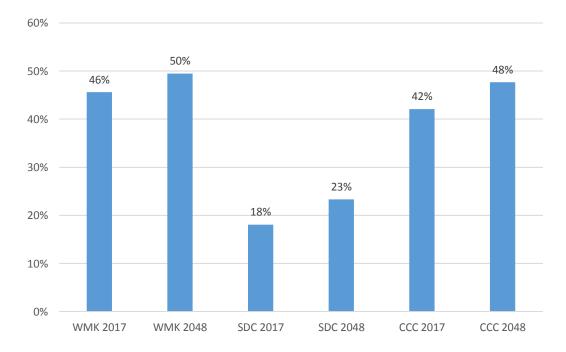
Graph 2.4.1: The projected proportion of owner occupied households who are unable to buy a house over \$250,000 - 2017 to 2048 (using 2017\$)

(Livingston and Associates Limited, Research Report Housing Demand in Greater Christchurch, Page 43, Table 4.5)



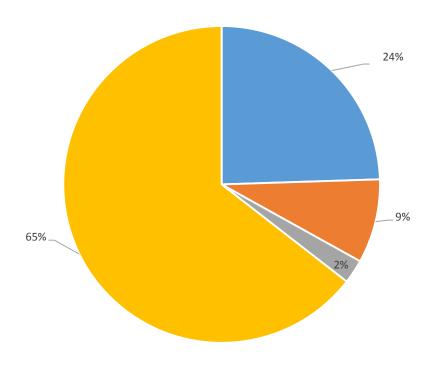
Graph 2.4.2: The projected proportion of renter households unable to affordably pay more than \$300 per week for rent – 2017 to 2048 (using 2017\$)

(Livingston and Associates Limited, Research Report Housing Demand in Greater Christchurch, Page 9, Table 1.3)



In terms of the projected annual household demand for Greater Christchurch (being 2,450 households), 36% of this will fall within the category of stressed renters/social housing and other areas of housing needs (870 households). Only 64% is remaining for all other housing demand (1580 households).

Graph 2.4.3: Implications of housing affordability and needs trends on the demand for social housing (Livingston and Associates Limited, Research Report Housing Demand in Greater Christchurch, Page 55, Table 4.13)



■ Stressed Private Renters ■ Social Housing Demand ■ Other Areas of Housing Need ■ Remaining Housing Demand

3. Current consumption patterns of household and population groups.

The NPS-UDC guide on evidence and monitoring states that a good assessment would start with an analysis of current and past patterns of consumption for housing, such as to reveal preferences of existing households within the current market (refer to section 2.2 of the NPS-UDC Guide to Evidence and Monitoring, page 30). The guidance recommends the development of a model to identify the current likelihood of different types of households to reside in different types of dwellings in different locations with the local authority area. Importantly, this type of analysis must be based on 2013 Census data as opposed to Statistics New Zealand's population projections, as the outputs from this analysis is of 'actual realised' information opposed to 'estimations or predictions'. Between the Census year of 2013 and until the next 2018 Census (plus the time awaiting results from this census), it is possible to track take-up rates for housing. However, current monitoring is limited to the following for each territorial authority;

- median dwelling price
- number of dwellings sold
- housing affordability; and
- land value as a percentage of capital value.

Historically data that has been collected by Councils in terms of housing, has been very limited or absent in terms of typology, sub-areas, and by different household types (i.e. age groups). Tracking recent trends in terms of take-up rates, and then assumed current demand for 'different types of households to reside in different types of dwellings in different locations', can only be drawn from a comparison between Census years. How the GC Council's undertake its monitoring, such to better meet the NPS-UDC requirements, is expected to fall as part of recommendations and key findings arising from the Housing Capacity Assessments.

3.1 Greater Christchurch Urban Development Indicators - Quarterly Monitoring Report (No.2) September 2017

Whilst monitoring on housing trends within Greater Christchurch is notably limited, the following findings from the September 2017 Quarterly Monitoring Report are of some relevance to housing demand. The 2017 September Monitoring Report reiterates the significant impact on the housing market the Canterbury earthquakes had, in particular with regard to locational preference, which in recent time may have been more heavily influenced by market availability. Whilst growth in building consents granted was reasonably consistent within each district, following the earthquakes it contributed to significant growth in Selwyn, with building consents largely increasing in direct correlation with the growth that occurred in the District (as the earthquakes did not affect this area to the extent of the other areas). For Waimakariri, there was a significant increase in building consents yet this did not correlate with growth as many of these consents were because of the rebuilding of dwellings and relocation of households affected by the red zoning in the District. The City suffered the largest impact from the earthquakes with negative growth directly after the earthquakes and then as the City recovered, the correspondingly the number of building consents (re-builds and new builds) increased.

The report does indicate an emerging trend towards smaller household sizes than historically offered within the housing market. In the Selwyn district over the last ten years the average household size has decreased by 34m² (where in 2007 the average floor size was 240m² and in 2017 was recorded as 206m²). This change is likely to be reflective of the greater number of 1-2 bedroom units built within more recent greenfield developments, where the household density is achieving 12 households per hectare as opposed to the older greenfield areas which only achieved 8-10 hh/ha. This change is even more apparent in the Waimakariri District where the average household size decreased from 234m² in 2007 to 177m² in 2017, again reflecting the wider choice of housing typology (i.e. more smaller dwellings of 1-2 bedroom) within more recent greenfield developments. Within Christchurch City whilst similarly there has been a decreased in average household size (from 173m² in 2007 to 164m² in 2017), this has not been as significant change due to the higher density of housing areas established and provided for under its District Plan.

3.2 Developing a Current Housing Consumption Model

In response to the gap in more detailed information on current housing consumption (as a measure of current housing demand), following is the beginnings of a 'current housing consumption model'. This has been based solely on the 2013 Census data, but follows the construct of the Livingston and Associates Demand Assessment tables that break down housing typologies, sub-areas, and household types. This approach has been followed such to enable comparisons to be drawn between the respective findings on housing demand (actual and projected) and supply (plan-enabled and commercially feasible).

Table 3.2.1 Number of households living in Greater Christchurch by tenure and age of the household reference person

(Source: Livingston and Associates Limited, Research Report Housing Demand in Greater Christchurch, 2017, Table A1)

Number of households living in Greater Christchurch by tenure	Number of households						
and age of the household reference person	Less than 30 yrs	30 to 39 yrs	40 to 49 yrs	50 to 64 yrs	65 yrs & over	Total	
Owners 2013 Census	4,900	15,590	25,080	36,620	30,080	112,270	

Table 3.2.2 - Number of households by tenure and submarket

(Livingston and Associates Limited, Research Report Housing Demand in Greater Christchurch, 2017, Table A5)

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i -	Settle	Central	North	North	Port	South	Lyttelto	South	Rural	Settle
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										s
3,500	9,090	7,460	20,170	24,110	7,410	9,320	1,680	19,660	4,840	5,310
	Waim akarir i - rural	Waima akarir i - Settle rural ments	Waima kariri - hurch i - Settle rural ments	Waima kariri - hurch hurch - Settle rural ments Christc hurch hurch - North East	Waima kariri - kariri - Settle rural Ments Christc hurch hurch - North East Christc hurch hurch - North West	Waima kariri - kariri - Settle rural Waima karir akarir i - Settle rural wents	Waima kariri - kariri - Settle rural Waima karir akarir i - settle rural wents	Waima kariri - kariri - Settle rural Waima kariri - Settle rural x ments X Settle rural X Settle Rest X Se	Waima kariri - kariri - Settle rural Ments	akarir kariri - Settle rural Morth

Table 3.2.3 - Number of households by household composition and submarket 2013 Census

(Livingston and Associates Limited, Research Report Housing Demand in Greater Christchurch, 2017, Table A4)

Number of households by household composition and submarket 2013 Census	couple only	couple with children	one parent	one person	Other	Total
Waimakariri - rural						
	1380	1370	80	380	220	3430
Waimakariri - Settlements						
	3,230	2,750	480	1,730	670	8,860
Christchurch Central						
	1,990	1,570	510	2,610	760	7,440
Christchurch - North East						
	5,920	6,500	1,370	4,240	2,160	20,190
Christchurch North West						
	7,580	7,550	1,590	5,120	2,260	24,100
Christchurch - Port Hills						
	2,870	2,510	300	1,320	430	7,430
Christchurch South East						
	2,570	2,560	710	2,450	1,040	9,330

Christchurch - Lyttelton						
	690	500	60	380	50	1680
Christchurch - South West						
	6,020	5,540	1,270	4,340	2,500	19,670
Selwyn - Rural						
	1,840	2,040	110	400	360	4,750
Selwyn - Settlements						
	1,600	2,670	200	500	420	5,390

Table 3.2.4 - Number of households by age of the reference person and submarket 2013 Census

(Livingston and Associates Limited, Research Report Housing Demand in Greater Christchurch, 2017, Table A3) Number of households by age of the 40 to 49yrs Less than 40 50 to 64 65 yrs and reference person and submarket 2013 years years over Census Waimakariri Rural 660 1190 1560 750 Settlements 2320 2450 3070 3410 **Christchurch City** Central 8040 3750 4670 3200 North East 7850 6500 8310 6340 North West 8410 6900 9740 9020 Port Hills 1410 2130 3250 2330 South East 3920 3060 4170 3210 Lyttelton 320 520 810 450 South West 9410 5820 7550 6640 Selwyn Rural 1040 1540 2140 950 Settlements 1930 2040 1740 900

Table 3.2.5 - Dwelling typology and tenure in Greater Christchurch

(Livingston and Associates Limited, Research Report Housing Demand in Greater Christchurch, 2017, Table A5)

Dwelling typology and tenure in Greater Christchurch		Owner occupiers						
Oreater Christonaron	St	andalone	dwellings	Multi-unit dwellings				
	2 Bdrm-	3 Bdrm+	Total	2 Bdrm-	3 Bdrm+	Total		
2013 Census	10,230	91,170	101,400	8,070	3,290	11,360		

Table 3.2.6 - Demographic characteristics and tenure by typology and submarket 2013 Census

(Livingston and Associates Limited, Research Report Housing Demand in Greater Christchurch, 2017, Table A5)

Demographic characteristics and tenure	Owner	occupiers	Renters			
by typology and Submarket 2013 Census	Standalone dwelling	Multi-unit dwelling	Standalone dwelling	Multi-unit dwelling		
Waimakariri						
Rural	3,380	120	730	0		
Settlements	8,240	850	2,000	410		
Christchurch City Central	4,530	2,930	3,100	9,110		
North East	18,510	1,660	6,860	1,970		
North West	216,620	2,490	7,190	2,830		
Port Hills	7,020	390	1,280	400		
South East	8,370	950	3,760	1,290		
Lyttelton	1,680	0	410	50		
South West	18,150	1,510	6,890	2,830		
Selwyn Rural	4,780	60	940	0		
Settlements	5,310	180	1,170	0		

Table 3.2.7 - Total dwellings by typology and tenure

(Livingston and Associates Limited, Research Report Housing Demand in Greater Christchurch, 2017, Table A5)

Total dwellings by typology and	Owner occupiers					Renters						
tenure	Standalone dwellings			Multi-unit dwellings			Standalone dwellings			Multi-unit dwellings		
	2 Bdrm-	3 Bdrm+	Total	2 Bdrm-	3 Bdrm+	Total	2 Bdrm-	3 Bdrm+	Total	2 Bdrm-	3 Bdrm+	Total
2013 Census	10,230	91,170	101,400	8,070	3,290	11,360	5,930	28,230	34,160	15,790	3,290	19,080

Table 3.2.8 - Median sale price, rents and household income

(Livingston and Associates Limited, Research Report Housing Demand in Greater Christchurch, 2017, Table 1.2)

Median sale price March 2013								
Waimakariri	\$395,000							
Christchurch City	\$408,000							
Selwyn	\$485,000							

4. Other influences of housing demand

This section provides further context to better understand housing demand in Greater Christchurch. It outlines historical patterns of demand, current trade-offs people make when choosing a home; discusses potential influences on future patterns of growth including international trends; outlines unmet (latent) demand, and describes other influences of demand such as social deprivation, the location of education facilities, and increasing diversity within the resident population due to strong immigration rates.

4.1 Historical patterns of housing demand

A supporting report titled "Greater Christchurch Urban Development Capacity Assessment – Report 4: Business and Housing Interactions" provides insight into historical patterns of housing demand. This report discusses how the settlement pattern of Greater Christchurch has principally been shaped from the creation and expansion of the colonial settlements laid down in the nineteenth Century. Whilst once focused around a strong Central City, during the 20th century the urban area (residential and business areas) expanded outwards and around a number of nodes, this development being largely enabled by the change in dominant transport mode from foot, bicycle and tram to the private car. The availability of significant areas of flat land that were relatively easy to subdivide and service, resulted in traditionally lower urban densities than other New Zealand cities. More recently, the impacts of the earthquakes has seen a relocation of households and businesses from the more damaged eastern side of the City and eastern Kaiapoi to areas to the west.

4.2 Locational preferences and trade-offs

The dynamics of the housing market are complex, and there are many factors that contribute to why any particular area experiences strong or weak demand and consequently growth. Locational preference may be driven by many reasons, including lifestyle, financial circumstances, and at least in part, to where people want to go, and how often these trips needs to be taken. Importantly for Greater Christchurch as relative to other major cities, most housing settlement areas are highly accessible to places of work, leisure and education. Transport modelling undertaken indicates that people are quite willing to travel some distance from home to work. As a consequence, ease of travel is unlikely to have been a strong influencer in where people have chosen to live.

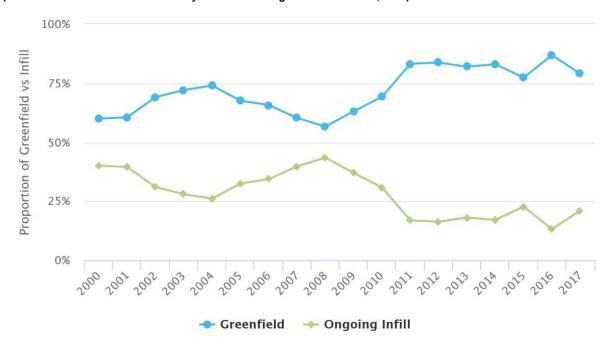
Where people have chosen to live has to a large part been dictated by where housing markets have been enabled (through rezoning) and when major infrastructure has been constructed (for example the sewage network) and an area has been developed (as decided and determined by property developers). The demand for new neighbourhoods (i.e. greenfield development) has always been consistently strong in Christchurch City, as illustrated by the following graph where the proportion of greenfield growth has been historically higher than what is apportioned to infill⁵. While Selwyn and Waimakariri don't currently monitor the level of infill development, based on observations of new developments it would suggest that the trend is the same, if not more strongly indicating a locational preference for greenfield areas.

Even prior to the earthquakes, proportionally there was more new dwellings being consented in greenfield areas and correspondingly less within the existing urban area. This could have been the impact of significant rezoning of greenfield land for new neighbourhoods in 2000, thus attracting existing and new residents to these areas. This general trend has continued since 2011, although infill development proportions did improve in 2008, which may have been attributed to greenfield developments nearing their capacity. Further market analysis is however required on the relationship between greenfield and infill development (namely whether one offsets the other) to draw any further conclusions on what specifically has driven the historical demand for new neighbourhoods (i.e. house design, section size, price, and/or amenity) and whether these greenfield area drivers are the same or different between spatial areas (i.e. a new subdivision within Waimakriri compared to new neighbourhoods in Selwyn or Christchurch City). Furthermore, whether the greenfield area demand drivers are the same or different than for redevelopment areas, or do some demand aspects such as proximity to schools, come more into play.

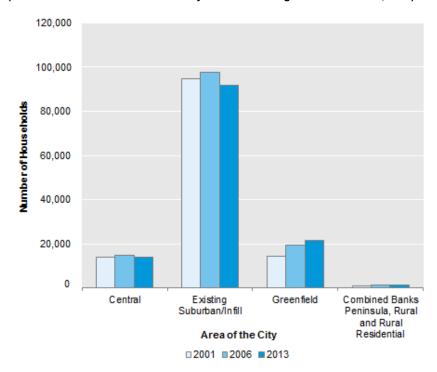
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⁵ The term 'infill' used in figure 4.2.1 is representative of all intensification that occurs within the existing urban area.

Graph 4.2.1 Proportion of Greenfield vs Infill Development (Based on data from Christchurch City Council Building Consent Records, 2017)

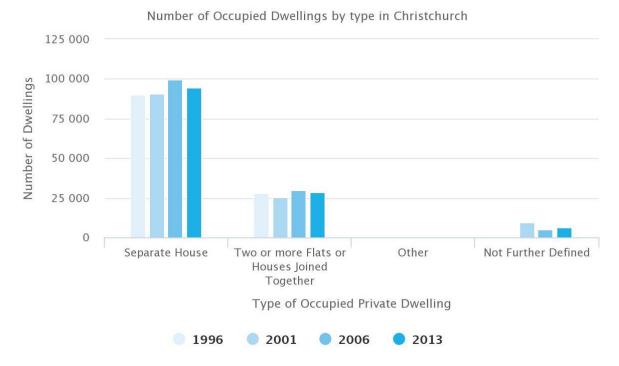


Graph 4.2.2: Total Number of Households by UDS Area (Based on data from Christchurch City Council Building Consent Records, 2017)



Research has been undertaken that may provide some insight as to why the demand for greenfield development has been consistently strong. A study carried out by Kusumastuti and Nicholson (2017) on mixed-use development is Christchurch, pointed out a similar trend. Surveyed residents wanted to live near supermarkets and parks, but less so near offices. Both studies show that people want a balance between housing features and location.

Graph 4.2.3: Occupied dwellings Christchurch City by Type between 1996-2013 (Based on data from Christchurch City Council Building Consent Records, 2017)

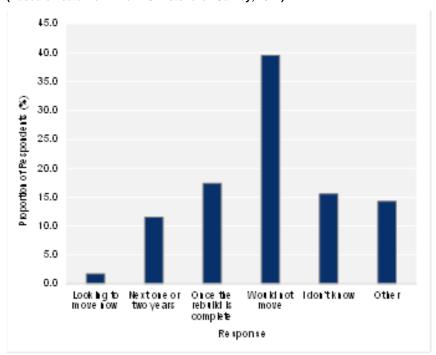


Graph 4.2.3 shows the trend of housing typologies of occupied dwellings in Christchurch City as per the census information from 1996 to 2013. This information was collected and graphed as part of the Liveable City survey by the Christchurch City Council. The graph shows consistent increase in separate housing as well as multiunits, with a preference being shown for stand-alone housing as opposed to multi-units. There was a decrease of 4734 stand-alone houses and 1383 multi-units from 2006-2013. This decrease however could be attributed to the 2011 earthquake which did impact housing in Christchurch City and resulted in the demolition of many older existing houses and their rebuilding, in many cases by replacing the existing home with two or more new dwellings (being enabled through changes to the Christchurch District Plan under the Land Use Recovery Plan - Te Mahere Whakahaumanu Taone). Thus drivers of demand since the earthquakes have been understandably different and caution needs to be taken to presume more recent locational preferences (trends) will continue.

The housing market may also well be at the cusp of a change in housing demand, not just in terms of locational preference, such as a preference for greenfield over redevelopment areas, but also in terms of house type. For example, historically in Central City Christchurch there was an upward trend of people living in the central city however after the 2011 earthquakes, this number had decreased significantly from 7650 to 4900. Since 2014, there has been an increased interest in residents wanting to live in the central city, and in 2016 the central city population had increased to 5,600. The majority of dwellings in the central city are townhouses, flats or apartments, with separate houses representing only a fifth of the central city's dwellings. Research undertaken to date, principally the annual Life in Christchurch: Central City survey, has provided some useful insight into housing demand (influencers) in the central city.

The 2017 Annual Life in Christchurch Survey drew 3,000 responses from a range of suburbs in Christchurch. A large portion of those responses came from residents living in the Central City (6%), St Albans, Cashmere and Halswell. In regard to moving to the Central City:

- Around 2% of respondents were thinking about moving to the Central City at the time.
- 11% were looking to move into the Central City in the following 1 or 2 years.
- 17% reported that they would consider a move to the Central City once the rebuild is complete.



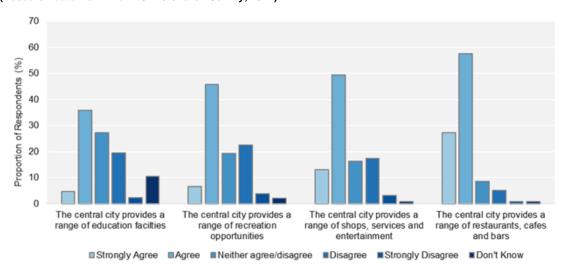
Graph 4.2.4: Percentage of respondents considering moving to new house (2017) (Based on data from Life in Christchurch Survey, 2017)

In terms of housing choice:

- 32% of respondents said that they believed there was a range of housing in the Central City.
- Half of the people said that there was no affordable housing options in the Central City.

In terms of what may drive housing demand, specifically services and facilities, the local environment, and transport:

- More than 90% of respondents had visited the Central City in the previous 12 months to the survey.
- 65% thought there was a range of things for families to do in the Central City.
- More than 80% of people said that there was a range of restaurants, cafes and bars.
- 63% of people were satisfied with the look and feel of new buildings.
- 50% of respondents did not think that the city was free of litter or vandalism.
- The Botanic Gardens was identified as the top spot for making the Central City distinctive and unique.
- People primarily travelled to the Central City by car to get to: work (53%), shopping (75%) and social trips (77%).
- 65% of people who had travelled to the Central City in the last 12 months did not think it was easy to travel by car.
- A further 30% thought it was easy to travel by bicycle in the Central City.
- 90% of respondents felt safe in the Central City during the day, while 30% felt a bit unsafe at night.



Graph 4.2.5: Services and facilities provided in the Central City (Based on data from Life in Christchurch Survey, 2017)

A further Christchurch Central City survey is currently being undertaken for 2018 asking a number of questions including what type of housing (and price range) people are seeking in the central city and again would they be willing to relocate to the central city.

This information aside, within the Greater Christchurch area we do not know emphatically, what the trade-offs are that people make when choosing where they live, and further whether these choices will still dominate in years to come. For instance, whilst traditionally the market has supplied stand-alone houses, as housing need changes (see section 2 of this report), will the preference for different typologies correspondingly change? What do we know about different groups in the community and any differences in the trade-offs they make? Are their demands for different typologies, price point and locations matched? Further what is the price range for those different types of dwellings at different locations? What are the attributes of the existing dwelling stock that is potentially affordable for low income households? Within the range of housing options that are affordable (i.e. below \$500,000 for dwelling and section), what typology can be provided and in what locations, and will these meet locational and typology preferences. Section 5 of this report recommends where future research work could be undertaken to close this information gap.

4.3 National and International Trends

It is useful to understand what other cities are experiencing in terms of housing demand, and whether similar findings might be applicable to Greater Christchurch, if not in the short term, but the longer term. There is a range of information regarding what other cities are doing in order to meet the growing population. Tension around development in Sydney and Melbourne show that this issue is not unique to New Zealand. There are several key points that relate to Greater Christchurch. A two part study in Melbourne and Sydney, carried out by the Grattan Institute illustrates that housing stock and housing demand do not meet. There is a large shortage of semi-detached homes and apartments in the middle and outer areas. In the study, when people were asked to choose anything they want, then they chose a large detached house near the centre of the city, which is an unlikely outcome and it is acknowledged that there are trade-offs in real life (specifically price). In this study, closeness to work did not rank highly and people were more concerned with the number of bedrooms, garage and living space provided, and for families, the location of schools was important.

In Sydney 7.4% would choose semi-detached, as per the Grattan Institute study, however only 2.8% are supplied, and therefore there is a shortfall of 4.6%. Furthermore, recent studies indicate that the average size of houses is increasing in New Zealand, and much more quickly that Australia or the USA. The average size of a dwelling has increased from 125m² in 1989 to 198m² in 2013, which is nearly twice as large as the average new house in Europe (Coleman, PSA, 2017).

These national and international trends were reflected in an Auckland-wide housing demand survey in 2015. Auckland Council's Research and Evaluation Unit commissioned a study to investigate what is important to Auckland households when choosing a place to live and to explore the housing that residents would choose to live in, if it was available (Yeoman et al. 2016). This research provided an understanding of the demand of housing, in both, an unconstrained and income constrained context. The key findings indicate that the choice

of housing types favoured medium and large sized dwellings, 61% and 26% respectively. While the largest group chose detached housing as their final choice (52%), the research shows that there is also a willingness to live in other housing types such as attached housing and apartments (48%).

This is especially the case where it means that residents are able to live in the location of their choice. However, the Choice Modelling data indicates that residents were more likely to choose attached dwellings and apartments over stand-alone dwellings and were also willing to trade-off their preferred location when dwelling sizes were larger (as determined by the number of bedrooms). This means that, in general, people prefer larger dwellings. The report concludes that while there is a demand for more 'higher density' dwelling types in Auckland, there is clearly a mismatch between the current supply of dwelling typologies and the housing demand as per the survey. Data regarding the type and location of the housing stock in GC needs to be collected and documented, so as to determine whether we might expect future housing demand to mirror what is being experienced in Auckland and Australia.

4.4 Affordable Housing

The Livingston and Associates Limited Demand Assessment highlights the deterioration in housing affordability. In addition to this reports findings, there is other information that supports the conclusion that there is an ever increasing demand for more affordable housing options.

In 6 months, between December 2016 and June 2017, there was a 2%, 10% and 5% increase in the Average Value per residential building in Selwyn, Waimakariri and Christchurch respectively (monitoring report, p14). Average house sizes have reduced and the average construction costs have increased over the last 10 years. The Monitoring Report (Report 1, June 2017) noted that that when additional land was supplied for development, housing affordability improved as per the MBIE measure. However, the measure does not take into consideration that sales prices for dwellings increased over the same period and that a large percentage of the existing housing stock was impacted by the earthquake. Therefore, while the improvement in housing affordability is positive, it is small against the significant increase in land supply enabled over the last 10 years. Further consideration of the relationship between this indicator and the others contained in this group needs to be better understood to determine the exact situation in the housing market (whether it be by comparing between local authorities or the wider Greater Christchurch area).

The affordability measure also shows trends that suggest that rental affordability has improved overall between 2011 and 2016. However, these numbers do not entirely correlate with the data trend for rents. From September 2010 to March 2015, rents increased by 41% to 44% throughout the Greater Christchurch area due to the shortfall of rental properties as a result of the Canterbury earthquakes, and income levels did not increase at the same level.

Massey University's home affordability report for the September to November quarter of 2017 shows median house prices increasing in all parts of New Zealand over the previous twelve months. The report's author notes that despite the occasional improvement in affordability, the long term trend is rising house prices and decreasing affordability (Press, 31-01-2018). Falling home ownership rates have also resulted in the average age at which people become home owners has increased across younger to middle aged cohorts in recent decades. Trends of rising house prices result in housing inequality and by short extension, wealth inequality. As the 2017 Briefings to Incoming Ministers note, high house prices transfer wealth to existing land owners, and appear to be the major cause of the observed increase in wealth inequality. The value of New Zealand's homes rose \$141 billion or 16 percent from 2015 to 2016 to \$1.014 trillion (Hickey, 2017).

There are also emerging trends that indicate housing affordability is more prevalent for some population groups. Graph 4.4.1 shows the proportion of people aged 15 years and over in specific ethnic groups who do not own or partly own their usual residence in Greater Christchurch. On note is that 74% of the Maori population do not own a dwelling, and similarly Pacific and MELAA are also disproportionately represented.

90% 81% 79% 80% 74% 70% 66% 60% 46% 50% 40% 30% 20% 10% 0% **EUROPEAN** MAORI PACIFIC **ASIAN** MFIAA

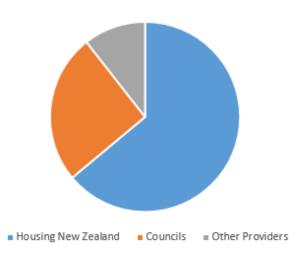
Graph 4.4.1: Home Ownership by Ethnicity: Percentage of residents who do not own a home (Based on data from Statistics New Zealand)

Another population group where demand is high for more affordable housing, is older persons. It is estimated that by 2043 a quarter of the Greater Christchurch area's population will be aged 65 and over, leading to possible housing issues (Cooper, 2017). Housing in the Greater Christchurch area was hit hard by the 2010 and 2011 Christchurch Earthquakes. 8,061 houses were red-zoned, and 167,000 houses were damaged, with 26,000 houses considered as 'seriously damaged' (Canterbury District Health Board, 2016). For many older people who lost their homes, Government pay-outs were based on the 2007 value of their property, which were very low. Subsequently, the pay-out was not enough to afford any other house in the Greater Christchurch areas, with many elderly being forced to take out high loans in order to afford a house (Davey & Neale, 2013). Since 2011, a multitude of other market factors have impacted older peoples housing, making it unaffordable. As of 2016, 20% of the CCC Social Housing stock is occupied by residents aged 65 and over (Christchurch City Council, 2015).

4.5 Social Housing

Demographic, tenure, employment and welfare trends, i.e. the 'perfect storm' of an ageing population, falling home ownership, less secure employment, and restricted access to welfare, are drivers for the current and projected increase in demand for social housing. The Salvation Army released a report in August 2017 analysing the future need for social housing in New Zealand⁶. The report states that current capacity of Social Housing in New Zealand is 'just over 82,000' units, with the majority owned by Housing New Zealand (62,500 units). Of this NZ total, Greater Christchurch has 9,500 social housing units. These are mostly provided for by central government through Housing New Zealand (64%), local government (25%) and other NGO providers (11%)⁷. The vast majority (95%) of these units are located within Christchurch. The report also addresses the future need for social housing. The report identifies two groups of growing need:

Graph 4.5.1: Social Housing in Christchurch (Model based on data from Statistics New Zealand)



⁶ Johnson, Alan (2017); Taking Stock, the demand for Social Housing in New Zealand; www.salvationarmy.org.nz/TakingStock

^{*}MELAA households - Middle Eastern/Latin American/African

⁷ Housing New Zealand has capacity of 6,048, with 140 within Waimakariri, 9 in Selwyn and 5,899 in Christchurch (https://www.hnzc.co.nz/assets/Publications/Research/Housing-Statistics-Managed-stock/Managed-Stock-Territorial-Local-Authority-June-2017.pdf). Christchurch City Council, through the Ōtautahi Community Housing Trust, has 2,300 units (https://www.waimakariri.govt.nz/community/council-housing). NGO's and others provide for approximately 350 units through providers such as Comcare (60 units), Christchurch Methodist Mission (59 units), Salvation Army (100 units).

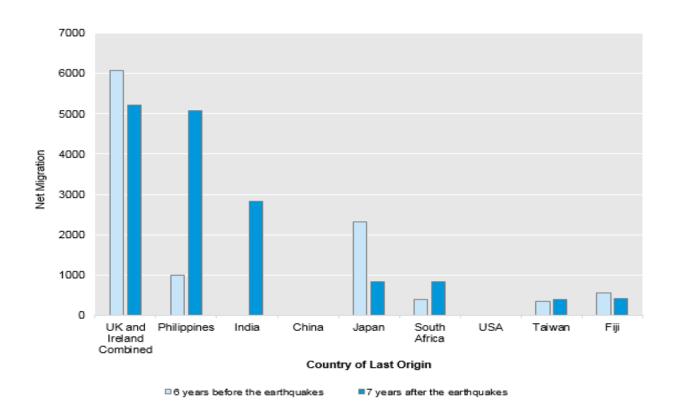
people with health or disabilities; and, older people who don't own a home and rely on superannuation. Currently, within Canterbury, there are 17,200 people receiving benefits, 5,600 health condition benefit and 11,600 on supported living benefit. There are currently 4,200 older people who don't own a home and rely on superannuation and this number is expected to grow by 155% (6,500) to the year 2030. Whilst these numbers do not represent social housing demand, they do indicate broad demand from people who are more likely to require long-term social housing support.

Based on the current GC supply of only 9,500 social housing units, there appears to be a deficit in the supply of social housing units and an increasing demand into the future. Several sources (Salvation Army forecasts, MBIE's 2013 housing market assessment, and the Livingston and Associates Limited GC Demand Assessment 2017) have estimated the demand for social housing over the next twenty to thirty years. These analyses converge on a figure of approximately 170 units per annum of additional social housing being required to meet expected demand based on current levels of provision in relation to housing need.

4.6 Migrant Demand

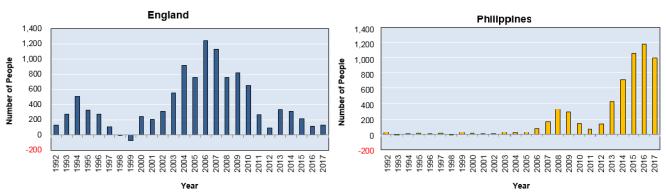
The expected net migration for Greater Christchurch is included in the Stats NZ projections, however the type of migrants has changed and this could influence future housing demand. Since the 2011 earthquakes, Greater Christchurch has seen a growth in migrants from South Asia, especially the Philippines and India. However, there has been a decrease in the number of migrants from Japan, the UK and Ireland.

Graph 4.6.1: Net Migration to Christchurch by Country of Origin (Based on data from Statistics New Zealand)



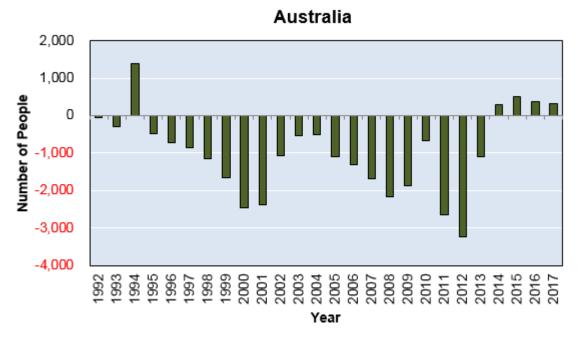
Graph 4.6.2 show the change in migration from England and the Philippines. As seen in the graphs, the number of immigrants from England has dropped, while the number of immigrants migrating to Christchurch from the Philippines has seen a sharp increase. The graphs illustrate that this change in migration occurred after the 2011 earthquakes.

Graph 4.6.2: Net migration to Christchurch from England v Philippines (1992-2017) (Based on data from Statistics New Zealand)



As seen in graph 4.6.3, net migration from Australia has been positive (more people arriving than leaving) in the last 4 years following nearly 20 years of high negative net migration.

Graph 4.6.3: Net Migration in Christchurch from Australia (1992-2017) (Based on data from Statistics New Zealand)



The origin of foreign arrivals affects the housing market. A 1000-person increase in monthly European/UK arrivals raises real house prices by 8 percent after 2 years, whereas a 1000-person increase in monthly Asian arrivals raises real house prices by around 6 percent.

People who come to New Zealand can be diverse. People arriving from Asia (often from countries with much lower incomes than New Zealand) are likely to be quite different in terms of wealth and housing preferences to people coming from Europe. As such, they might have different effects on the housing market. Arrivals from Asia and Europe/UK made up 39 and 29 percent respectively of non-New Zealand citizen arrivals in 2013. Further research is however required in regard to links between ethnicity and housing demands, particularly impact on future housing demand trends.

4.7 Household Crowding

The size of households is an important driver to consider as residents will buy or rent dwellings based on the number of bedrooms provided. If appropriate housing is not supplied by the market, crowding occurs. The Canadian National Occupancy Standard (CNOS), used by the New Zealand Government as a core housing indicator, was developed by the Canada Mortgage and Housing Corporation to determine the number of bedrooms a dwelling should have to provide freedom from crowding. The CNOS is based on the number, age, sex and interrelationships of household members. The CNOS states that:

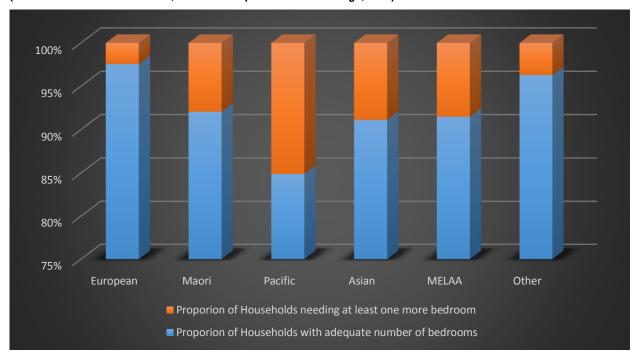
- No more than two people shall share a bedroom
- Parents or couples may share a bedroom
- Children under 5 years, either of the same sex or opposite sex may share a bedroom
- Children under 18 years of the same sex may share a bedroom
- A child aged 5 to 17 years should not share a bedroom with a child under 5 of the opposite sex
- Single adults 18 years and over and any unpaired children require a separate bedroom⁸

Housing plays a critical role in the social structure, as it provides a place for meetings, traditions, rituals, and other cultural expressions⁹. Māori and Pacific households often have culturally specific requirements and preferences in relation to dwelling design, which can influence their housing preferences, choices and trade-offs. New Zealand wide studies indicates that Pacific peoples often prefer to live in an extended family living situation, but it is also noted that this could be a strategy to cope with the high costs of accommodation¹⁰. This tendency for extended family living arrangements should be taken into consideration as there will be a requirement for dwelling types that house a larger than average number of people.

Graph 4.7.1 shows the household crowding in Greater Christchurch by ethnicity. The graph shows that Maori, Pacific, Asian and MELAA groups are disproportionately represented. Further research and analysis needs to be carried out in order to determine the size and types of dwellings that need to be supplied to provide freedom from crowding for all ethnic groups. This trend suggests that the market needs to supply a range of housing, which will give all households a range of opportunities to buy or rent dwellings within their budget and preferred location.

Graph 4.7.1: Household Crowding by Ethnicity - Proportion of households needing at least one more bedroom





⁸ Statistics New Zealand, http://archive.stats.govt.nz/tools_and_services/nzdotstat/tables-by-subject/housing-quality-tables/crowding-occupancy-rate.aspx, 2018

⁹ Housing Choice and Preference: A review of Literature, Wildish Bianca, Auckland Council, 2015

Housing Choice and Preference: A review of Literature, Wildish Bianca, Auckland Council, 2015

Table 4.7.1: Household Crowding

(Source: Statistics New Zealand, Census of Population and Dwellings, 2013)

Ethnicity	Total population	Households needing at least one more bedroom	Percentage
European	134,094	3348	2.50%
Maori	15,936	1374	8.62%
Pacific	4248	756	17.80%
Asian	12,291	1197	9.74%
MELAA	1,743	162	9.29%
Other	5,004	192	3.84%

^{*}MELAA households (Middle Eastern/Latin American/African)

4.8 Demand for Visitor Accommodation

The NPS-UDC Guide on evidence and monitoring (p28-29) identifies key sources of information that provide a proxy for analysing whether visitor demand is numerically and proportionally significant. This is done by comparing Greater Christchurch to the national average. These are: census counts of dwellings and households; and the proportion of dwellings unoccupied on census night.

Tables 4.8.1 and 4.8.2 outline the ratio of dwellings for every household and the percentage of households unoccupied on Census night. It is important to note that at the time of the census (2013) there was potentially a significant number of unoccupied dwellings counted that were signalled for demolition and this will increase the numbers for Greater Christchurch. For a breakdown by council, see appendix.

Table 4.8.1 Census Counts of Dwellings and Households

(Source: Statistics New Zealand, Census of Population and Dwellings, 2013)

Area	Ratio
New Zealand	1.13
Greater Christchurch Councils	1.17
Queenstown-Lakes	1.47

Table 4.8.2 Proportion of Dwellings Unoccupied on Census Night

(Source: Statistics New Zealand, Census of Population and Dwellings, 2013)

Area	Percentage
New Zealand	11%
Greater Christchurch Councils	13%
Queenstown-Lakes	28%

Table 4.8.1 shows that Greater Christchurch is just above the New Zealand average. The data in Table 4.8.2 shows that, taking into account the unoccupied dwellings for demolition, Greater Christchurch is consistent with the national average. Overall the tables show that visitor demand is consistent with national averages and therefore not numerically and proportionally significant to require an increase in the household projection. Further, this could be inflated by the displacement of population from the earthquakes.

5. Future Work

Further survey work is required to understand housing demand in Greater Christchurch. The survey provided needs to present people with real choices and their different consequences. This will not only help the Greater Christchurch Partnership better understand household preferences, but it will also engage residents and give them the opportunity to understand and contribute to the development of the Future Development Strategy. A recommended scope for this further survey work is provided below, which includes the analysis and incorporation of survey work currently and/or planned to be undertaken.

5.1 Current and planned surveys

The Life in Christchurch - Communities survey which went out towards the end of last year asked questions about current housing in the city and the range and choice of housing in Christchurch. The survey focuses on Christchurch Central and aims to determine if residents who work, live or visit the city would consider moving to the Central city, what typologies they would consider living in and if they believe the housing options are affordable. The survey also asks how residents feel about the central city neighbourhood in terms of services, amenities, facilities and safety. The results of this survey will be available by April 2018.

The 2018 Census, which is being held on 6 March 2018, will ask questions relating to dwellings and housing quality. Census data can be broken down to a sub-city scale, and will indicate more accurately the current and future population trends. The Census will also ask respondents questions relating to tenure, crowding, housing quality and typology. Census data will be available from December onwards.

5.2 Identifying Gaps and Recommendation for future survey

Older people and changing typologies

It is estimated that by 2043 almost a quarter of the Greater Christchurch area's population will be aged 65+, leading to possible housing issues (Cooper, Sam 2017¹¹). Retrospective data on the age distribution of net migration and net change also shows that some Unit Areas are older than others and this will affect the number and type of households in the Unit Areas (Jackson, Natalie, 2017¹²). Literature and surveys from other countries suggest that elderly persons will want to downsize to one or two bedroom dwellings, however, further collection and analysis of data is required in Greater Christchurch to confirm this assumption. A starting point for data gathering can be in community meetings in the following 11 suburbs, which as noted in the report by Sam Cooper, are common locations of residence of residents aged 50yrs and over,

- Rangiora
- Belfast
- Hornby
- Barrington
- Bishopdale
- Cashmere
- West Melton
- Shirely
- Redwood
- Sockburn
- Aorangi

· Different ethnicities and changing typologies

People who come to New Zealand can be diverse and are likely to have different housing preferences to people coming. Currently very little information is available on the population change and the effect it is having on housing demand in Greater Christchurch. It is anticipated that the Life in Christchurch 2018 survey results, will provide some data. However, it should be noted that the survey will be for

¹¹ Sam Cooper, Elder Persons Housing in the Greater Christchurch Area: The issues and options to meet future demans of the 65+ Age Demographic, 2017

¹² Natalie Jackson, Selwyn – review of Demographics – Townships, 2017

central city only and show a preference for some housing types, therefore further research is required to identify the future housing demand and trade-offs the current population in Greater Christchurch is willing to make.

Location: safety, amenities, services, schools

Location features were identified as one of the most desirable features when looking for a house, as per the Grattan Institute Study (2011)¹³. These features included, but were not limited to, safety of people and property, attractiveness of the surrounding environment and convenience and access to work, healthcare services and schools. Very little, if any, information is available in Greater Christchurch about what are the current and possible future factors that drive where people choose to live. Research is required to identify the trade-offs residents are willing to make, such as how far people are willing to travel for work, in terms of location of house. Furthermore, whether these reasons are likely to change over time, for example as one ages, their financial circumstances change, and or other conditions change such as transport costs or major improvements to an area are completed, i.e. rebuild of the central city, revitalisation of older commercial centres, the Otakaro Avon River Corridor, and Kaiapoi regeneration areas, and operation of rapid public transit routes.

Size of housing – number of bedrooms vs typology

Results from national and international studies indicate that residents give priority to the number of bedrooms when choosing a dwelling. The number of bedrooms required depends on the size of the household. There is currently a gap in information regarding the relationship and trade-offs between the size of the dwelling and the typology, made by different household groups.

• Climate change impacts

Greater Christchurch will be affected by climate change and this will have an effect on future housing demand, as well as the current housing stock. While data has been collected and analysed regarding some impacts of climate change, such as coastal inundation and ground water flooding, further analysis is required to ascertain how the current housing stock will be affected and where new housing should be built. Research needs to be carried out to determine public perception of climate change impacts and how this will affect future housing demand in Greater Christchurch.

¹³ The Housing We'd Choose, Grattan Institute, 2011

6. Reference Materials

Resource	Location
National Policy Statement Urban Development Capacity:	http://www.mfe.govt.nz/publications/towns-and-cities/national-policy-statement-urban-development-capacity-2016
National Policy Statement Urban Development Capacity: Guide on Evidence and Monitoring:	http://www.mfe.govt.nz/publications/towns-and-cities/national-policy-statement-urban-development-capacity-guide-evidence

A. Appendices

A1. Visitor Accommodation Data

Census Counts of Dwellings and Households

Area	Dwellings	Households	Ratio
Christchurch	148,794	126,450	1.18
Selwyn	16,743	14,736	1.14
Waimakariri	20,346	18,261	1.11
Total	185,883	159,447	1.17

http://m.stats.govt.nz/Census/2013-census/profile-and-summary-reports/qstats-families-households.aspx

Proportion of Unoccupied Households in Greater Christchurch

Area	Occupied	Unoccupied	Percentage
Christchurch	131,010	17,784	14%
Selwyn	15,228	1,515	10%
Waimakariri	18,696	1,650	9%
Total	164,934	20,949	13%

 $\underline{\text{http://www.stats.govt.nz/Census/2013-census/data-tables/population-dwelling-tables/canterbury.aspx}$

A2. Census Demographics

Topic	Variables		Lyttelton Harbour	North East	North West	Port Hills	South East	South West
Usually Resident Population	Census Usual Resident Population	48,318	5,196	71,466	83,364	22,458	35,241	72,399
	Under 15 Years	6,429	891	14,556	14,574	4,179	6,783	12,966
Broad Age Groups	15-64 Years	36,390	3,477	46,689	54,867	14,322	23,379	48,510
Drodd Age Credpe	65 Years and Over	5,514	828	10,200	13,929	3,960	5,067	10,932
	Total people	48,318	5,193	71,451	83,367	22,455	35,232	72,387
	Employed Full-time	21,252	2,133	27,309	30,798	8,943	13,248	28,476
	Employed Part-time	5,118	723	8,079	10,731	3,153	3,843	8,136
	Unemployed	1,737	111	1,881	2,193	348	1,044	1,950
Labour Force Status	Not in the Labour Force	11,088	1,125	17,163	23,271	5,199	8,832	18,561
	Total Stated, Labour Force Status	39,213	4,098	54,435	67,005	17,643	26,967	57,120
	Work and Labour Force Status Unidentifiable	2,685	207	2,466	1,788	627	1,485	2,304
	Total	41,889	4,305	56,892	68,796	18,276	28,455	59,439
	Unemployment Benefit	1,299	42	1,197	1,044	138	666	1,179
	Sickness Benefit	1,308	72	1,386	1,002	156	867	1,158
	Domestic Purposes Benefit	984	57	1,509	1,014	150	954	1,206
Social Welfare Recipients (excld	Invalids Benefit	1,563	57	1,929	1,374	168	1,110	1,770
Super), population aged 15 years and	Student Allowance	1,821	57	1,194	2,793	300	624	2,040
over	No Source of Income During That Time	2,064	216	3,090	4,569	900	1,572	3,318
	Total Stated, Source of Personal Income	38,283	4,044	53,412	65,814	17,511	26,364	55,791
	Not Stated	3,603	261	3,489	2,967	768	2,091	3,648
	Total	41,892	4,305	56,904	68,793	18,276	28,452	59,433
	Dwelling owned or partly owned	5,697	1,317	14,532	15,522	4,410	7,203	14,118
Tenure (for households in private	Dwelling not owned and not held in a family trust	11,829	435	7,536	8,511	1,551	4,464	8,304
occupied dwellings)	Dwelling held in a family trust	1,566	303	2,775	4,959	2,025	1,188	2,595
	Total Stated, Tenure of Household	19,095	2,058	24,858	28,992	7,980	12,858	25,026
	Not Elsewhere Included	1,647	111	1,497	1,071	360	900	1,320

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	Total	20,733	2,172	26,358	30,051	8,331	13,761	26,364
	No Motor Vehicle	2,823	84	1,830	1,656	222	1,203	1,941
	One Motor Vehicle	8,769	735	8,886	10,173	2,217	5,418	9,225
Number of Motor Vehicles (for	Two Motor Vehicles	5,604	891	9,969	11,985	3,810	4,554	9,756
households, in private occupied	Three or More Motor Vehicles	2,121	363	4,503	5,487	1,800	1,848	4,476
dwellings)	Total Stated, Number of Motor Vehicles	19,314	2,073	25,206	29,292	8,058	13,029	25,383
	Not Elsewhere Included	1,422	96	1,158	759	273	738	957
	Total	20,733	2,169	26,364	30,054	8,340	13,758	26,358

Deprivation

	Deprivation Decile										
Division	1	2	3	4	5	6	7	8	9	10	Total Population
ChCh Central	2,007	0	2,325	2,706	0	7,509	9,147	13,506	11,118	0	48,318
Lyttelton Harbour	2,337	0	2,859	0	0	0	0	0	0	0	5,196
North East	7,203	8,745	2,574	10,035	10,326	11,169	0	15,780	1,824	3,810	71,466
North West	5,367	20,484	11,037	13,872	20,127	1,833	5,496	0	5,148	0	83,364
Port Hills	19,104	1,371	1,983	0	0	0	0	0	0	0	22,458
South East	2,442	4,155	0	6,297	0	0	5,652	8,910	7,785	0	35,241
South West	9,615	1,956	8,721	9,606	657	4,776	34,185	2,883	0	0	72,399

Version Control

Date: 26 February 2018

Version: Draft V3

Contributors: GC Housing Capacity Assessment Team

Purpose: Housing Demand information across the organisations

Owner: Greater Christchurch Partnership