Selwyn District

Long-Term Plan 2024-34

Growth & Demand Report

Selwyn District Council

2023/2024

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Date prepared	22nd June 2023
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Version History

Date	Version	Reason
31st May 2023	0.1	Initial draft
2nd June 2023	0.2	Amendments from peer review
6th June 2023	0.3	Updated Economic Projections
12th June 2023	0.4	Strategies, Policies and Plans Incorporated
14th June 2023	0.5	Post Presentation Update
22nd June 2023	0.6	Formative updated economic projections

Executive Summary

This report has been prepared for Selwyn District Council's use with the intended purpose informing the development of Long-Term Plan (LTP) 2024-2034, accompanying 30-year Infrastructure Strategy and Financial Strategy. This report includes a broad range of information, data and commentary on the expected changes in population and the use of land in the Selwyn District. Expected changes in population are included as projections for population, households, and dwellings out to 2054. The report also contains employment projections out to 2054.

In short, between 2024 and 2034, population projections indicate that there will be an additional 23,353 people living in the Selwyn District. This projected population increase would result in an additional 8,729 households and 9,629 dwellings. Between 2024 and 2054, population projections indicate that there will be an additional 67,049 people living in the Selwyn District. The projected additional population for this period (2024-2054) is considerable, essentially the additional population to be accommodated by 2054 is the equivalent of the entire population of the Selwyn District in 2020. This projected population increase between 2024 and 2054 would result in an additional 25,682 households and 28,330 dwellings.

The report details how the population of the Selwyn District is not only growing but is also changing. The Selwyn District is becoming increasingly urban, more diverse and older. The projected growth of the Selwyn District over the thirty or so years is set to occur at a time of great change, transformation and uncertainty. This includes climate change, ongoing degradation of the natural environment, the biodiversity crisis, heightened exposure and vulnerability to natural hazard risks, disruptive technologies, inequity, low social cohesion, economic and geopolitical instability. This presents numerous challenges for the Selwyn District and places an immense pressure on the wellbeing of local communities.

Contents

1. Growth Planning

Selwyn Growth Planning Overview

Over the last two decades, the Selwyn District has experienced rapid growth in population, from around 27,600 in 2000 to 79,300 in 2022. Population in the District has grown by 4.9% per annum, and in 2022 the Selwyn District was the fastest growing territorial authority area in the country. Selwyn District Council is a high-growth local authority which means that the population of the Selwyn District is expected to grow at or above the national population growth rate according to the projections of Statistics New Zealand (Stats NZ).[1]

Managing growth and development is an important aspect of local government. All councils are required to undertake growth planning as part of their responsibilities under the Resource Management Act 1991 and Local Government Act 2002. Growth planning identifies the expected way that the district will grow and change over time, considering demographic and economic trends. Economic and population growth drives the need for new capital expenditure to meet that growth.

Growth planning informs Council's infrastructure programme which is included in a Long-Term Plan (section 93 of the Local Government Act 2002), associated 30-Year Infrastructure Strategy (section 101B of the Local Government Act 2002) and the significant forecasting assumptions of the Financial Strategy (Clause 17 Schedule 10 Local Government Act 2002). The Financial Strategy is a critical part of the Long-Term Plan, along with Council's Infrastructure Strategy, together these provide the strategic direction and the underpinning context for the long-term plan.[2]

Demographic Trends

Demand for services and infrastructure may change for reasons that are not connected with an increase in population. Examples include the impact of reducing average household size and changes in demographics. A reduction of the average household size increases the demand for housing and associated infrastructure without a commensurate increase in the population. An ageing population will have implications on natural increase, however, in and of itself, an ageing population will alter the demand for certain facilities and services. As demand is also affected by demographic trends, it is important to ascertain not only likely future population growth but the composition of that growth.

The Spatial Element of Growth

Growth occurs at specific locations and one part of a district may experience a high level of development, even as other parts of that district have a declining population or minimal development activity.[3] It is critical that residential and non-residential projections are matched with areas, townships

[1] Section 3 of the Local Government (Financial Reporting and Prudence) Regulations 2014

[2] Office of the Auditor-General (2022) Matters arising from our audits of the 2021-31 long-term plans. https://oag.parliament.nz/2022/ltps/docs/ltps.pdf

[3] Te Tari Taiwhenua | Department of Internal Affairs (2021) Guide: To developing and operating development contributions policies under the Local Government Act 2002. www.dia.govt.nz/diawebsite.nsf/Files/Development-contributions-policies-guide/$file/Development-contributions-policies-guide-v2.pdf

suburbs, or even specific parcels of land so that spatial plans, asset management plans and development contributions policies can make use of them. If growth occurs in different locations from those assumed in the projections, there is a risk that Council will have 'stranded' growth infrastructure with no funding source (at least temporarily). This is highly dependent on the circumstances and infrastructure in question. Council has previously acknowledged that should growth occur at different rates, it can respond by accelerating, delaying or revising planned capital works.

This report will refer to the Selwyn District, sub-district areas, Stats NZ statistical area 2 (SA2) boundaries and townships. SA2 geography aims to reflect communities that interact together socially and economically. In populated areas, SA2s generally contain similar-sized populations. SA2s in city council areas generally have a population of 2,000–4,000 residents while SA2s in district council areas generally have a population of 1,000–3,000 residents.

The Selwyn Capacity for Growth Model

It is essential for local authorities to utilise growth modelling to discern a reasonable and realistic outlook for future growth and change to inform effective growth planning. A key output of growth models are projections of future population, households, dwellings and jobs at district and/or sub-district level. Growth projections are not predictions and are typically used as an indication of the overall trend, not exact forecasts. Growth modelling requires realistic assumptions that reflect their best information about the future. The actual level of growth, its distribution, and composition can vary significantly from the projections and assumptions. Inaccurate projections can be costly, resulting in infrastructure that is inadequate to service higher-than-expected growth or surplus to requirements when growth is lower than expected. Projections require frequent updating to maintain their relevance and usefulness, by incorporating new information.

Council continues to monitor growth and population trends, which includes maintaining and updating the Selwyn Capacity for Growth Model (SCGM) with Formative Ltd to inform growth planning in the district. The SCGM helps us plan to ensure there is sufficient infrastructure and zoned land in the right location at the right time.

The SCGM contains three distinct and interrelated modules:

Module 1 produces residential demand projections (population, households and dwellings) using a standard cohort component method and household formation model.

Module 2 produces economic projections including Gross Domestic Product (GDP), employment by industry and the demand for floorspace and business land.

Module 3 satisfies a requirement of the National Policy Statement on Urban Development 2020 (NPS-UD) by producing estimates of the amount of additional dwelling and business floorspace that can be developed on each property within the urban areas of the Selwyn District to determine whether there is sufficient development capacity for housing and business land to meet projected demand. Further information can be found on development capacity for housing and business land at the following:

- Selwyn Residential Capacity and Demand Model Economic Assessment[4]
- Greater Christchurch Housing Development Capacity Assessment[5]
- Greater Christchurch Business Development Capacity Assessment[6]

Module 1 and Module 2 of the SCGM are the most important information sources for this report, with Module 1 underpinning the remainder of the SCGM. A detailed explanation of how each module of the SCGM is provided in Appendix 1.

Scenarios and the Selwyn Capacity for Growth Model

A number of high-growth local authorities and authorities of large urban areas develop and maintain growth models. These local authorities either rely directly on Stats NZ population projections for their demand projections, or commissions bespoke demographic projections. The key difference between the modelling methods adopted by these local authorities relates to the assumptions that are input into the model. Growth projections are usually presented as 'scenarios' which are a result of different combinations of fertility, mortality, and migration assumptions.

The SCGM uses the official Stats NZ Estimated Residential Population as the base population (2022). The assumptions for fertility, mortality and net migration are set for three scenarios, (low, medium, and high), using the official Stats NZ assumptions from the 2018-based projections. This means that the SCGM projections are consistent with the Stats NZ projections, however they have been updated to a newer base year which provides a contemporary set of projections that reflect the growth that has eventuated between 2018 and 2022. Previous outputs of the SCGM prior to 2022 incorporated the expert advice of a demographer to adjust the age profile of migrants, however this has not been included in the post-2022 SCGM. Since that time Stats NZ migration assumptions have improved and are in line with advice of a demographer, so now the SCGM uses fertility, mortality and migration assumptions of Stats NZ.

Commonly, councils use a medium projection from Stats NZ as the standard projection that is the best estimate of growth. However, for Selwyn the medium projection has been far too low and has been consistently surpassed in recent years. Advice from Formative Ltd is that Selwyn District Council should adopt a conservative stance and adopt a 'High Projection' as the basis for growth planning due to the unique position of the district so as not to underestimate future growth. It is likely that demand in the short and medium term cannot be expected to continuously reach the high population projection. As a conservative approach, this report will use the 'High Projection' of the SCGM which assumes high fertility, low mortality, and high migration.

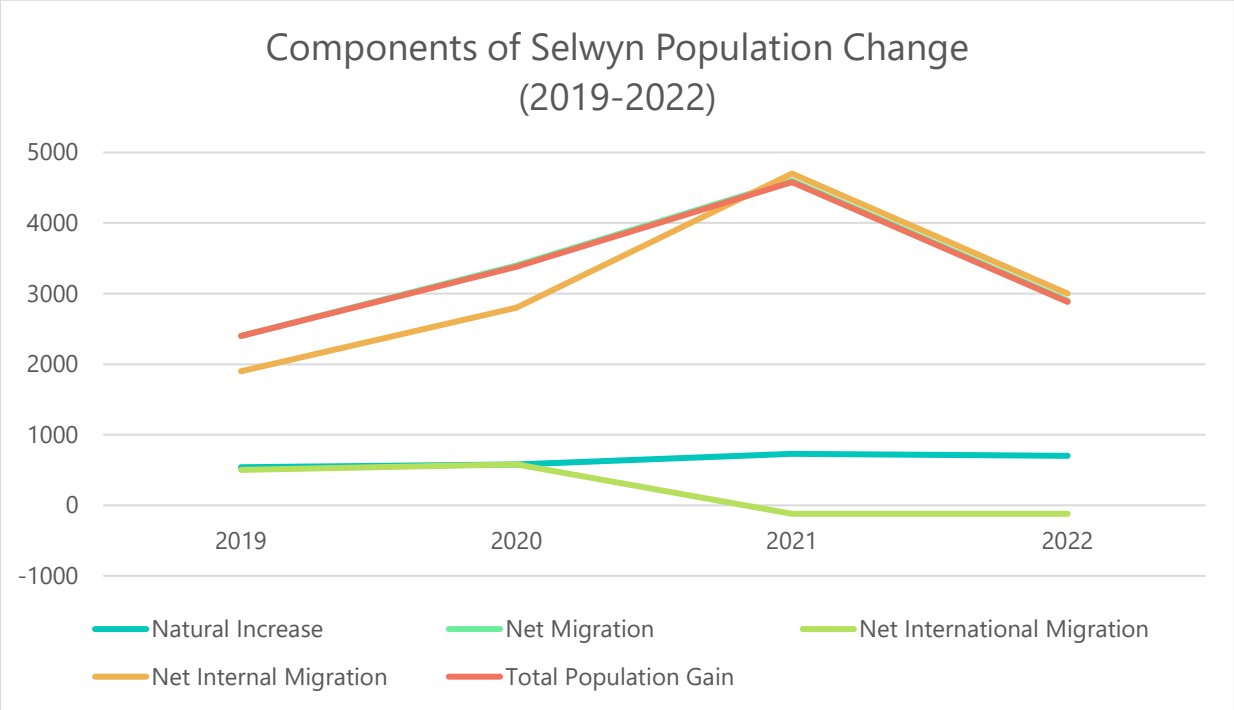
[4] Formative Ltd (2023) Selwyn Residential Capacity and Demand Model Economic Assessment. https://www.selwyn.govt.nz/__data/assets/pdf_file/0005/1787936/Selwyn-Residential-Capacity-and-Demand-Model.pdf

[5] Greater Christchurch Partnership (2023) Greater Christchurch Housing Development Capacity Assessment. https://greaterchristchurch.org.nz/assets/Documents/greaterchristchurch-/HuiHui-Mai/Greater-Christchurch-Housing-Development-Capacity-Assessment-March-2023-v3.pdf

[6] Greater Christchurch Partnership (2023) Greater Christchurch Business Development Capacity Assessment. https://greaterchristchurch.org.nz/assets/Documents/greaterchristchurch-/HuiHui-Mai/Greater-Christchurch-Business-Development-Capacity-Assessment-April-2023.pdf

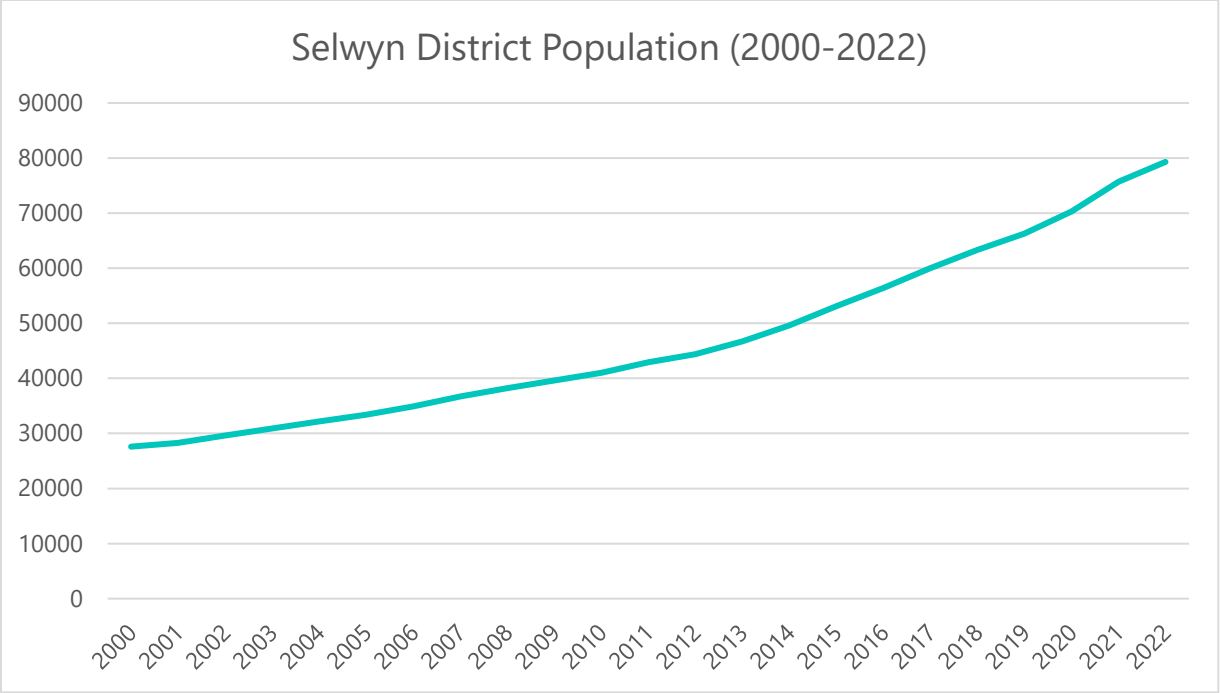
2. Population

The Selwyn District has experienced immense and rapid population growth over the last few decades. Over the past six years the population of the Selwyn District has grown by 3,800 per annum, while the number of dwellings consented grown by 1,500 per annum. People are understood to 'vote with their feet' expressing locational preferences for where they live and work due to a perceived improvement in well-being resultant from locating to a particular area with higher utility in terms of amenities, job opportunities and housing. There has been a strong and sustained demand preference for the Selwyn District in the past few years in particular. Most of the population growth has been driven by net internal migration, (around 80% of total population gain) with people moving to the District from Christchurch City and other areas of Aotearoa New Zealand. The remainder of the growth is related to natural growth and to a much lesser extent international migration. Between 2020 and 2022 there has been a net international migration loss which corresponds with the national trend for that period.



Population Growth

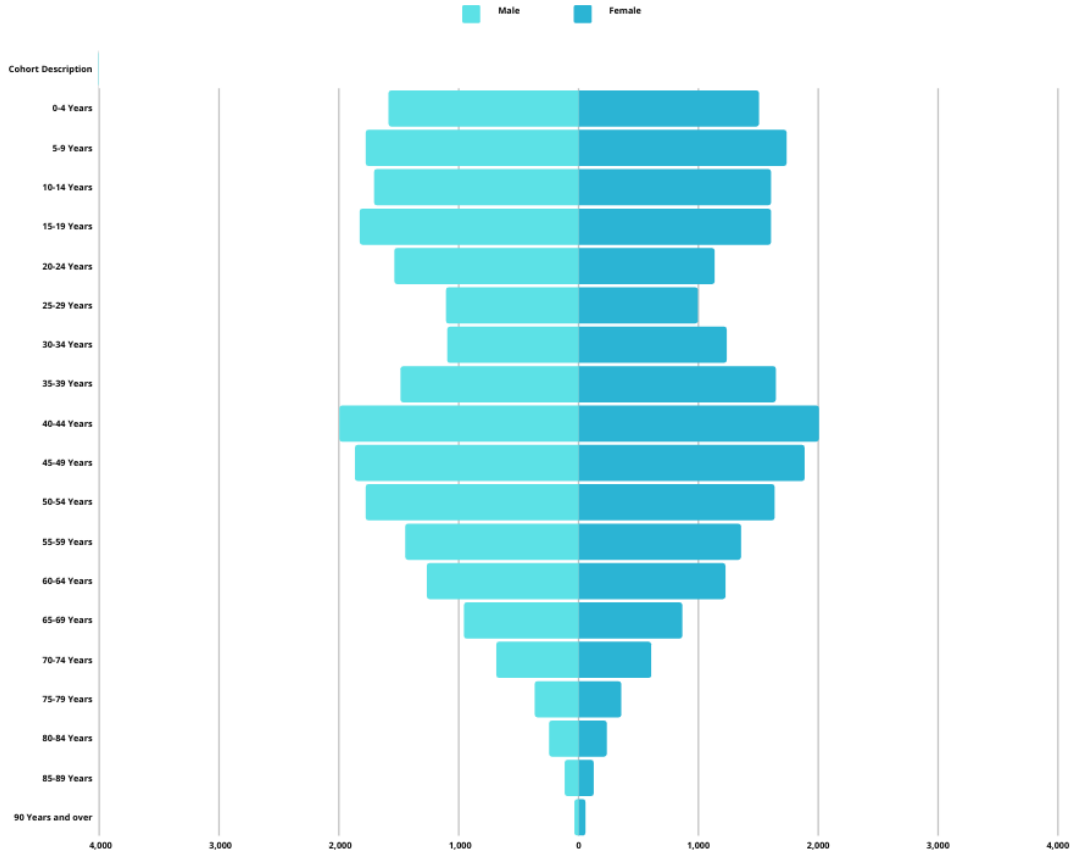
According to Stats NZ subnational population estimates for June 2022, the estimated resident population of the Selwyn District was 79,300. In 2000, the population of the Selwyn District was 27,600 meaning the population has grown by 51,700 since that time. In the last ten years alone, the population has grown by 34,900 representing a 78.6% increase. Over the Covid-19 pandemic era (2019 to June 2022) the population has grown by 13,000 representing a 19.6% increase. Border closures and COVID-19 have had a positive impact on growth in the district, through continued internal migration (potentially in response to COVID and remote working / finding space) and no international migration loss.



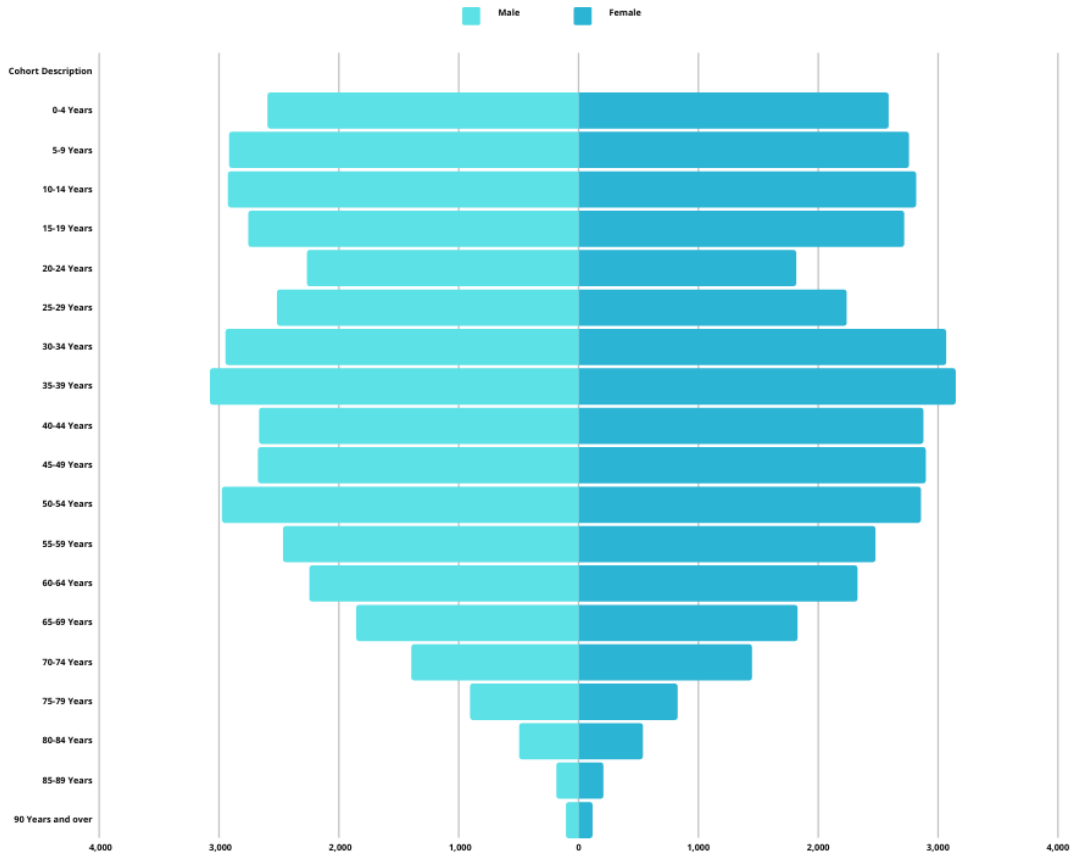
Demographics

The components of population change births, deaths and migration, along with the age profile of migration, alter the age and sex structure of the population. The primary cause of Selwyn District's population growth is net migration comprised of migrants that are heavily located at the parental and child ages, indicating the inward movement of families. The district has also continued to experience strong natural increase which has been supplemented by its high net migration gains and relatively youthful migrant age profile. Selwyn District's net migration is heavily comprised of internal migration and uniquely for the Selwyn District, internal migration is strongly positively correlated with natural increase. As a result, the population of the Selwyn District has a much younger age structure than many other territorial authorities, presently the Selwyn District gas a median age 37.3. The change in age structure can be observed through presenting demographic data visually in population pyramids. The population pyramids below present Stats NZ subnational population estimates by age and sex in 2012 and 2022. It is clear that although there has been growth across all age groups over this ten-year period, the observed change in age structure reflects the influence of migration on population growth.

Age Structure 2012 (Male and Female)



Age Structure 2022 (Male and Female)



Although the Selwyn District is young structurally and is likely to continue to have a younger age structure than the national average due to migration trends the Selwyn population is ageing. The population of Selwyn is ageing numerically, due to improvements in life expectancy and longevity, as well as ageing structurally, due to declining fertility which causes an increase in the numbers of elderly as a proportion.

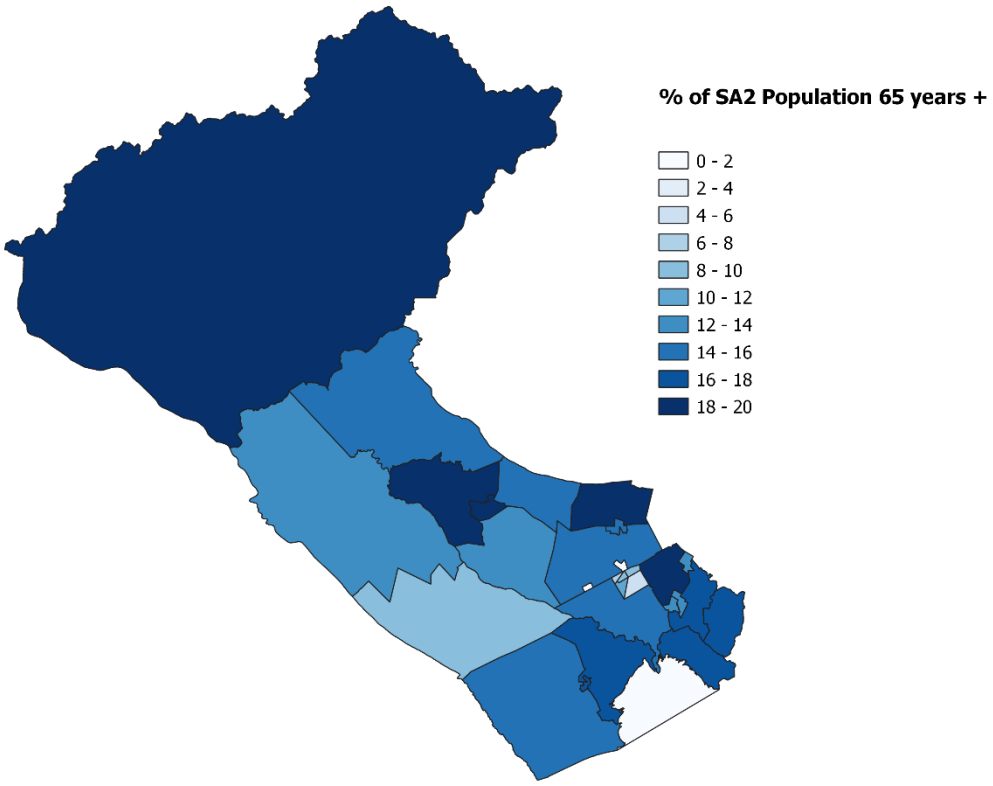
In 2012 the percentage of Selwyn's population aged 65 years and older was 10.32%, for 2022 it was 12.4%. Once a population has greater than 20% aged 65 years and above its natural increase is typically very low to negative, meaning that future growth becomes increasingly dependent on migration. Selwyn's ageing population is not presently caused by migration gains of older migrants. The migration age profile shows that Selwyn experiences very low to negative migration after age 70. The Selwyn District is experiencing 'ageing-in-place', that is, greater percentage growth in numbers at older ages, seemingly because older people tend to remain in the district as they age, or older leavers are exactly replaced by older arrivals.

Area and Township Demographics

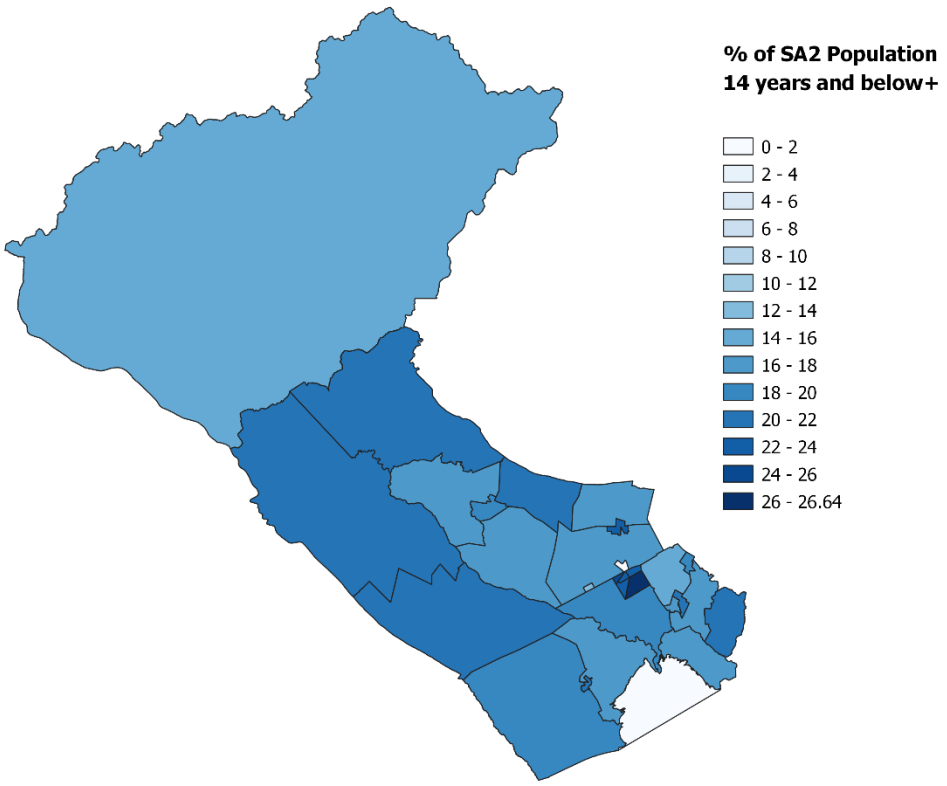
There are diverse age structures across Selwyn District, with considerable variation in the demographic make-up of areas. These distributional differences are important for growth planning, not just to compare the population age structures of each area, but also to appropriately locate future services.

The area of Burnham Camp has a median age of 26.1, which is to be expected due to a large number of military and associated civilian personnel that live and work at the camp. Aside from Burnham Camp which has a unique make up, the next youngest areas, which consist of a number of SA2s are Rolleston with a median age of 35.38 and Lincoln with a median age of 35.85. Craigieburn has the oldest median age, 48.5 and has been ageing faster than other areas of the Selwyn District. Other areas of the Selwyn District with an older median age are Halkett 46.9, Trents 45.9 and Tai Tapu 45.9. Typically, an increasing median age is driven by the loss of young people and/or the gain of older people; a decreasing median age, the opposite.

In the SA2 areas of Darfield, Trents, Craigieburn and Glentunnel between 18-20% of the total population is aged 65 and over (June 2022). An area with more than 20% of the population aged 65 and over is said to be experiencing 'hyper-ageing'.



Not including the Izone SA2 area, over 24% of the Rolleston is aged 14 or younger. In the SA2 areas of Rolleston South East and Rolleston North West over a quarter of the population is aged 14 or younger. West Melton has a median age of 43.3 which is well above the district average, however over 23% of the population is aged 14 or younger. Burnham has the lowest proportion of its population aged 14 or younger (13.91%) followed by Craigieburn (15%).



The data clearly show that the Selwyn District's relative youth is concentrated in a small proportion of the district. The population pyramids of our largest towns for 2022 are presented in Appendix 2.

Housing

The growth of the Selwyn District has meant that there has been a rapid increase in residential development activity, in terms of dwelling construction, which has consistently outpaced Stats NZ projections. The significant increase in housing demand in the Selwyn District, has resulted in significant urban expansion, particularly in the larger townships. The SCGM estimated that there are 30,559 dwellings in the Selwyn District in 2022 and increase of over 6,156 dwellings since 2018.

In recent years there has been a shift from larger 800m^2 sites to smaller sites of 400-500m^2, particularly in Rolleston and Lincoln. In the townships of the Selwyn District the majority of development has occurred on the periphery of each of the towns with minimal infill development adjoining commercial centres. There has been a concerted effort by the Government through the Urban Growth Agenda, the National Policy Statement on Urban Development 2020, the Medium Density Residential Standards and the National Policy Statement for Highly Productive Land to promote greater intensification in urban areas.

Higher densities in urban areas are less land intensive, can facilitate housing choice, improve affordability, promote liveable towns, encourage economic development, locate jobs in proximity to where people live, improved walkability, reduce transport emissions, reduce infrastructure costs, lead

to greater energy savings, and many other co-benefits. Higher density urban areas must be coupled with the encouragement of mixed-use land use to facilitate living locally and living sustainably. Increasing density will also require a greater provision and level of service for key amenities and services.

There are several signs that point towards a potential decline in residential dwelling construction in the Selwyn District in coming years. On an annual basis the number of residential consents in the Selwyn District decreased by 2.1% for March 2021 to 2022 compared with the same 12-month period a year before March 2020 to 2021.

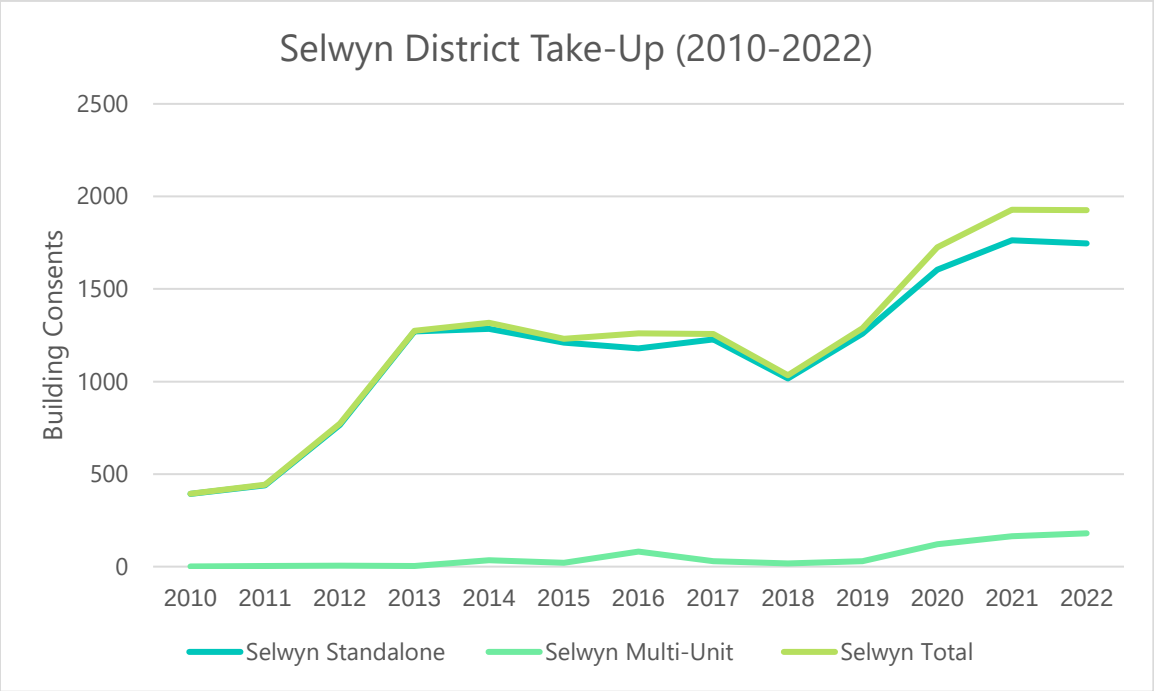
The graph below produced by Te Tūāpapa Kura Kāinga | Ministry of Housing and Urban Development on the Urban Development Dashboard shows the change in new residential building consents in the Selwyn District between 1997 and 2022.

The Selwyn District has a particularly young housing stock, with a significant portion constructed from the year 2000 to present. Presently, the Selwyn District does not provide significant diversity and choice in its housing stock in terms of size, typologies, and price points. Due to strong demand preference the majority of the housing stock is defined by a particular typology being 3-to-4-bedroom stand-alone dwellings with double garaging.[7]

The combination of an aging population and smaller household sizes may result in an increasing underutilisation of the housing stock over time. The graph below shows 'take-up' in the Selwyn District over the last 12 years for stan-alone and multi-unit typologies.[8] The data shows that stand-

[7] Harrison Grierson (2020) Greater Christchurch Partnership: Greenfield Density Analysis.
[8] **Take-up** refers to the number of dwellings actually developed over a period of time, relative to the amount of capacity enabled by the district plan.

alone typologies have continued to dominate housing supply over the last decade with modest growth in multi-unit typologies from 2019 onwards.



Average household size for the Selwyn District is 2.9, based on the 2018 census.[9] Estimates from the SCGM for 2022 are that the average household size for the Selwyn District is 2.86. It is important to recognise the ratio changes across the District. Rolleston has an average household size of 3 above the district average, as does Prebbleton (3.1). West Melton (3.1), Leeston (2.9). Darfield has an average household size of 2.5 and Lincoln has an average household size of 2.6 which is below the district average. Other townships of the Selwyn District, particularly in more rural areas are closer to a ratio of 2.6. Townships centred on recreation, tourism and/or subject to seasonal population fluctuations such as Arthur's Pass, Kura Tāwhiti | Castle Hill and Whakamātau | Lake Coleridge have a much lower household size of around 1.6. Average household size has barely changed since 2006 where the average was 2.93, followed by 2.97 in 2013, and then 2.94 in 2018. The stability in household size potentially reflects the District's disproportionately youthful population and the strong presence of families. The average household size for the Selwyn District is projected to fall to 2.65 by 2050 due an ageing population and changing family structures.

[9] **Average household size** the mean number of people per household. It is calculated by dividing the number of people in households by the number of households.
Stats NZ (2021) Housing in Aotearoa: 2020. www.stats.govt.nz/assets/Uploads/Reports/Housing-in-Aotearoa-2020/Download-data/housing-in-aotearoa-2020.pdf

Housing Need

Housing, or more accurately 'adequate housing' under international law, is an international human right, and everyone in the country has the right to a warm, dry, safe, secure, affordable, accessible, healthy, decent home. Applying a human-rights lens to housing is important as it recognises that the national housing crisis is a human rights crisis.[10] In the context of the Selwyn District, it is important to discern current and future housing need so that the provision of housing is suitable for the diverse range of housing needs across the district and is responsive to changing housing needs. Housing need is broader than housing demand, referring to a range of other aspects of housing requirements such as habitability, suitability and affordability. Housing need typically focuses on those that need assistance to meet their housing requirements. Relative to other local authority areas, the Selwyn District has relatively low levels of housing need (those in need of assistance), however, much like all urban areas that need is increasing.

To better understand housing need, an understanding of the housing continuum is necessary as it assists with providing an understanding of the levels of housing assistance that different households may need. The housing continuum specifies different types of housing tenure based on degrees of dependence and independence ranging from emergency and homeless households to owner occupation.

As the housing continuum reflects housing tenure it is inextricably linked with housing affordability. Housing affordability refers to housing costs in relation to a household's ability to meet those costs. Housing affordability comes under pressure when housing costs increase at a faster rate than household incomes. Decreasing levels of housing affordability have impacted on home ownership levels at one end of the housing continuum, and social housing at the other.

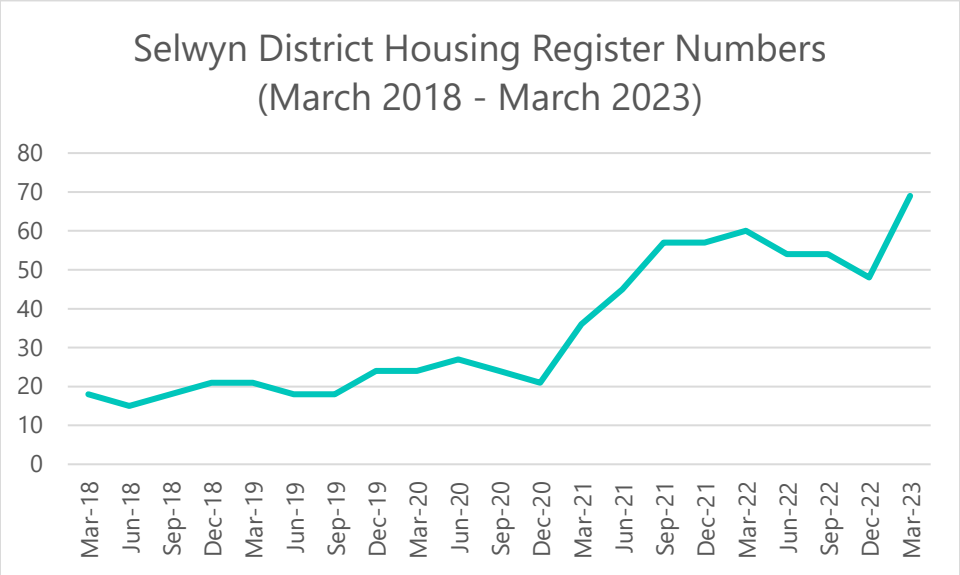
It is important to recognise that certain groups have been disproportionately affected by poor housing outcomes and face greater housing costs relative to incomes. These groups include sole parents, recent migrants, Pacific peoples, Māori, low-income earners, nonowner-occupiers, the unemployed, disabled people, and those with no qualifications.

Those with the most acute housing needs and the most vulnerable are those that are homeless, in emergency and transitional housing. There are low levels of homeless, emergency and transitional housing need in the Selwyn District.

[10] United Nations General Assembly (2021) Visit to New Zealand: Report of the Special Rapporteur on adequate housing as a component of the right to an adequate standard of living and on the right to non-discrimination in this context, Leilani Farha. Human Rights Council Forty-seventh session

There has been an increasing demand on public housing from those that usually reside in the Selwyn District. Public or social housing (used interchangeably) is a vital part of the national social support system. It provides individuals and families with a warm, dry, safe place to live. Public housing is owned or leased by Kāinga Ora or community housing providers (CHPs) and is tenanted by people who are eligible. Public housing is the collective term for community housing and state housing. Community housing is the provision of affordable housing to lower- and moderate-income groups by non-government, not-for-profit organisations. In the national context community housing is rental housing provided by registered CHPs rather than private landlords. State housing is provided by Kāinga Ora. Currently there are nine registered CHPs in the Canterbury region. Both community and state housing provide accommodation for people in need from the Social Housing Register.

The most commonly used methodology for assessing demand for social housing is through the Housing Register, which is currently administered by the Ministry for Social Development (MSD).[11] The Housing Register provides the number of applicants assessed as eligible for social housing who are ready to be matched to a suitable property. The graph below shows the number of applicants on the Housing Register in the Selwyn District as of March 2023 as well as the previous five years.



The number of applicants on the Housing Register in the Selwyn District has been increasing over the last few years, which a sharp increase between December 2020 and December 2021. The increase in the number of applicants on the Housing Register in the Selwyn District is to be expected given recent population growth. The Housing Register is seen as a barometer of need but is not an accurate reflection of actual number of residents requiring assistance. The lack of social housing

[11] Stats NZ (2021) Housing in Aotearoa: 2020. www.stats.govt.nz/assets/Uploads/Reports/Housing-in-Aotearoa-2020/Download-data/housing-in-aotearoa-2020.pdf

supply in Selwyn District means those on the lowest incomes often move to Christchurch where there is a large stock of social housing provided by Kāinga Ora and CHPs.

There is an ever-increasing number of households that are renting in the Selwyn District. As the population Selwyn District continues to grow, it is expected that the economy and employment base will also increase. The need for affordable rentals will increase over the coming decades and it is essential that this is provided for in the Selwyn District so that this housing need is met which in turn ensures that a suitable supply of labour that will sustain the local economy is provided locally. In 2020 there were approximately 5,000 renter households in the Selwyn District, this is projected to increase to around 8,000 by 2034. The increase in renter households is projected to be comprised of couples without children, couples with children and one person household types which have a greater propensity for living in smaller multi-unit housing typologies.

The Selwyn District has one of the highest rates of owner occupation in the country (approximately 80%). The ethnic make-up of the Selwyn District in 2018 was over 90% 'European or Other (including New Zealander)' ethnic group. The 'European or Other (including New Zealander)' ethnic group has a high rate of owner-occupation in the Selwyn District. Selwyn attracts an influx of home buyers and inward migration of owner occupiers is expected to maintain high rates of owner occupation into the future. There will likely be small decline in the rate of owner occupation from 80% to around 75% into the future reflecting changing demographics.

Many lower income households are unable to access affordable and appropriate rental housing in the private rental market.[12] Those in the private rental market including those saving for a deposit are increasingly experiencing housing stress, that is high outgoings for housing costs relative to household income. Households that are servicing a mortgage are also facing housing stress as interest rates rise due to contractionary monetary policy. Households in the private rental market as well as owner-occupiers are in greater need of assistance with housing costs such as the accommodation supplement administered by MSD. The accommodation Supplement is a weekly payment to assist people who are not in public housing, with their rent, board or the cost of owning a home. There are also other forms of assistance some of which may be informal and may be indirect that assist with general living costs. Households, especially low-income households can be left with insufficient income to meet other basic needs such as food, clothing, basic household operations, transport, medical care and education. This can lead to poverty type situations even if household incomes are above formal poverty thresholds.

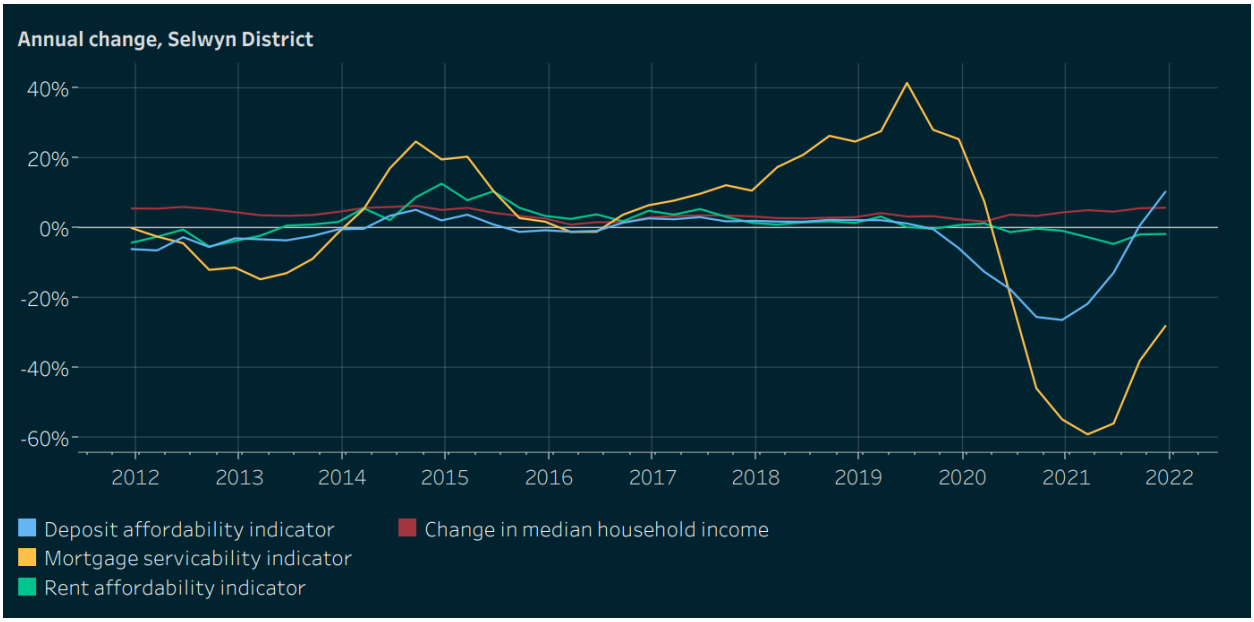
Te Kōmihana Whai Hua o Aotearoa | the Productivity Commission observed that people will "often choose to migrate to small towns outside cities, where they are still able to commute to work in city centres but where houses are more affordable".[13] This outward shift of population and employment from the city to the surrounding areas has been influenced by push and pull factors, including lower

[12] Ministry for Social Development (2023) Social Development and Employment: Housing responsibilities: Briefing to the Associate Minister. www.beehive.govt.nz/sites/default/files/2023-03/BIM%20-%20Assoc.%20Minister%20of%20Social%20Development%20-%20Housing.pdf

[13] Te Kōmihana Whai Hua o Aotearoa | New Zealand Productivity Commission (2017) Better Urban Planning. www.productivity.govt.nz/assets/Documents/0a784a22e2/Final-report.pdf

costs of land, lower taxes (rates), preferences for single-family dwellings and greener surroundings. This has been observed in the Selwyn District with high levels of net-migration and growth particularly in the eastern townships. Despite continued growth, the relative affordability of housing in the Selwyn District within the national and local housing market has severely eroded over the last few years.

The nominal median dwelling sales price in the Selwyn District peaked at $863,000 in March 2022 and has since dropped to $797,000 in March 2023. The nominal mean weekly rent in the Selwyn District has been steadily increasing over the last few decades reaching a rate of $569 in March 2023. Indicators on housing affordability are produced by Te Tūāpapa Kura Kāinga | Ministry of Housing and Urban Development (HUD). The indicators show how the affordability of renting a home, saving for a deposit, and servicing a mortgage for people entering the market has changed over time. Each indicator compares price change with growth in median household income. Higher change in affordability index means becoming more affordable.



Rental affordability has experienced minimal change in the Selwyn District. Median household income growth has broadly kept pace with rental price growth. In the Selwyn District deposit affordability has deteriorated since the end of 2020 as house sales prices have increased at a faster rate than household income. Deposit affordability has shown improvement since March 2022. Mortgage serviceability improved from mid-2019 to mid-2020 as interest rates fell, but the recent trend is a reversal as interest rates rise again.

A safe, healthy, and warm home is a human right that must be provided in the Selwyn District. The quality of the housing stock in the Selwyn District when assessed in terms of habitability is high when comparisons are drawn to other areas in the country. Housing habitability refers to the degree to which housing and its location provide a physically safe, physically secure, and physically healthy environment. Selwyn's housing stock is dryer, warmer and healthier than the national average, principally due to the relatively youthfulness of the housing stock in the district which have been

constructed in accordance with up-to-date building code requirements. As the housing stock ages and reaches the end of its lifespan it is likely that some of these standards will deteriorate without replacement and renewal.

Housing suitability is the ability of households to meet their housing needs including the need to access housing, public services and amenities, and local opportunities such as employment or schooling that is appropriate to their needs; cultural expectations; and their aspirations and preferences. People with different lifestyles and those at certain stages of their life require different types of housing. A commonly used concept of suitability relates to space, particularly in relation to identifying homes that are crowded or where there is underutilisation of space.[14] Selwyn has relatively low levels of crowding compared to other urban areas. There is some indication that there is a level of crowding in rental housing in Lincoln which is assumed to be inflated due to the high concentration of tertiary students. Into the future with an ageing population and smaller households there is a real risk that there will be increasing underutilisation of the housing stock should a step-change not occur in diversifying the housing stock by providing a range of typologies.

Deaths and Mortality

Council has a statutory responsibility to provide for the current and future burial needs of the Selwyn District's current and future residents as prescribed in Section 4 of the Burial and Cremation Act 1964. As the District's population grows and changes the Council will need to plan and provide for future cemetery requirements. Past population trends and future population projections, particularly mortality (deaths) is valuable for assisting Council to meet both the short term and long-term burial and remembrance needs of the various communities within the District.

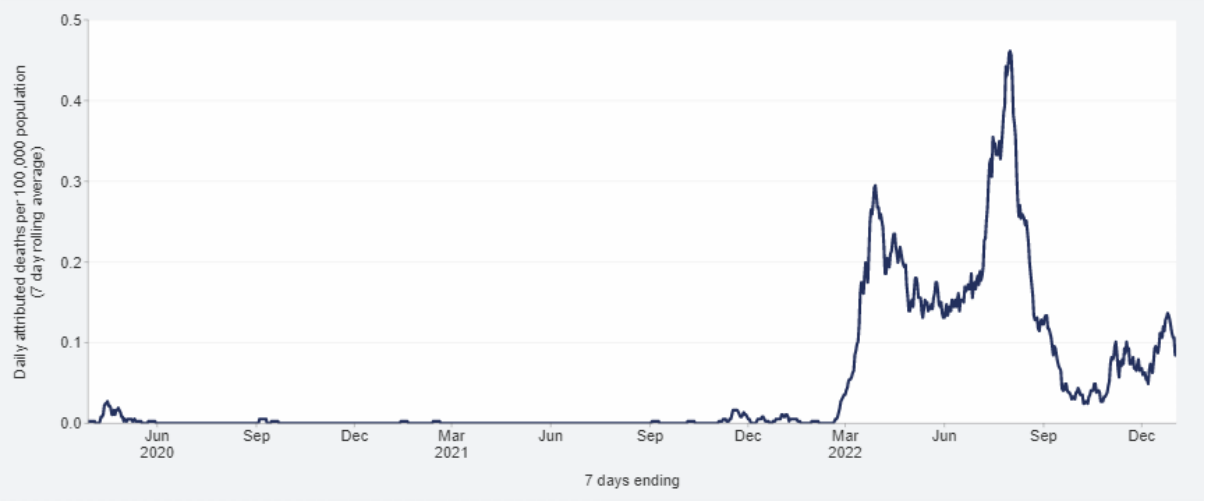
Under the provisions of the Births, Deaths, Marriages, and Relationships Registration Act 1995, every death occurring in New Zealand must be registered so there is high level of coverage and general accuracy. At a national level, deaths are gradually increasing over time, despite a generally increasing life expectancy. This is due to population growth, and our ageing population - more people in older ages where most deaths occur.

In 2021, deaths were in line with the expected national trend of increasing deaths, while deaths in 2020 were lower as there were far fewer winter deaths than previous years. The COVID-19 pandemic has influenced deaths over the last few years, including the increased number of deaths in 2022.[15]

The graph below produced by Manatū Hauora | Ministry of Health shows COVID-19 deaths between the 1st of January 2020 and the 2nd of January 2023. COVID-19 deaths are defined as people who died with the cause of death being attributable to COVID-19 (that is, an underlying or contributory cause).

[14] Stats NZ (2021) Housing in Aotearoa: 2020. www.stats.govt.nz/assets/Uploads/Reports/Housing-in-Aotearoa-2020/Download-data/housing-in-aotearoa-2020.pdf

[15] Stats NZ (2022) Deaths increase as population ages. www.stats.govt.nz/news/deaths-increase-as-population-ages/

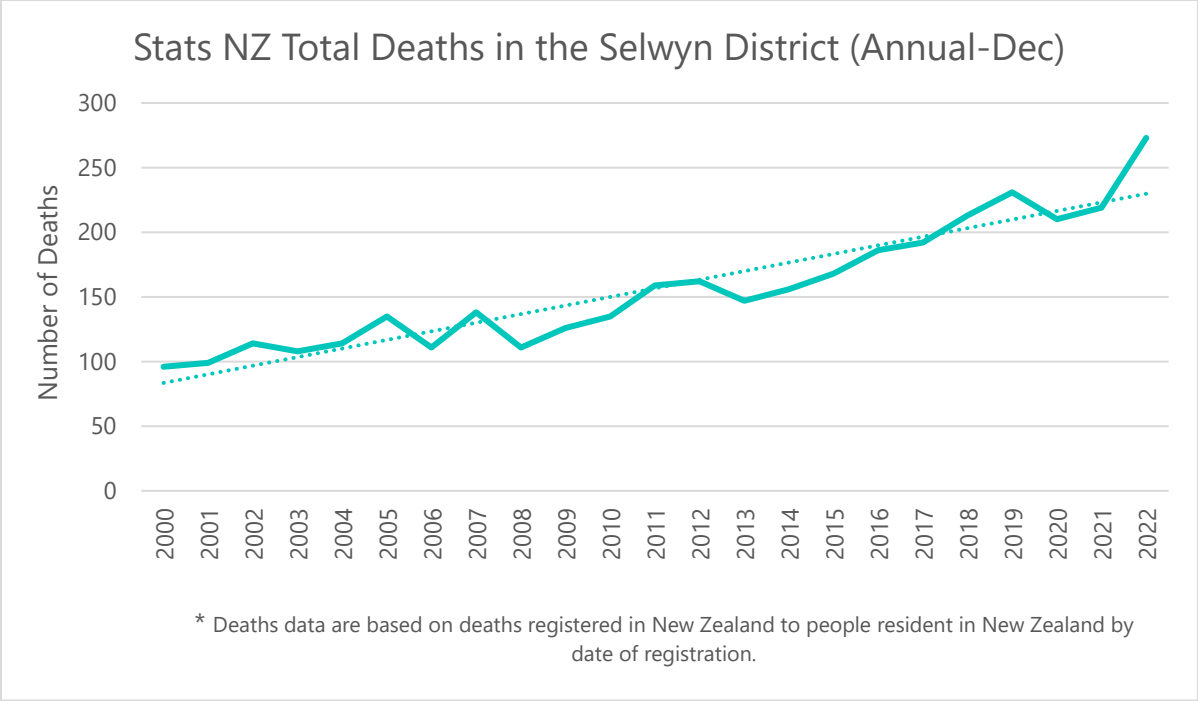


Source: Manatū Hauora | Ministry of Health. COVID-19 Trends and Insights. https://tewhatuora.shinyapps.io/covid19/

In 2022, nearly two in every three deaths in 2022 in New Zealand were for people aged 75 years or older, and one in every five deaths were to people aged 90 years or over.[16] The number of people in the population reaching these older ages is increasing, which will therefore increase the number of deaths occurring. Deaths have been increasing in the Selwyn District largely as a result of significant population growth, but this will increasingly be influenced by an ageing population into the future.

Stats NZ data on registered deaths of residents of the Selwyn District between 2000-2022 confirms a general trend of increasing number deaths in the Selwyn District, including the influence of COVID-19 on deaths between 2020-2022.

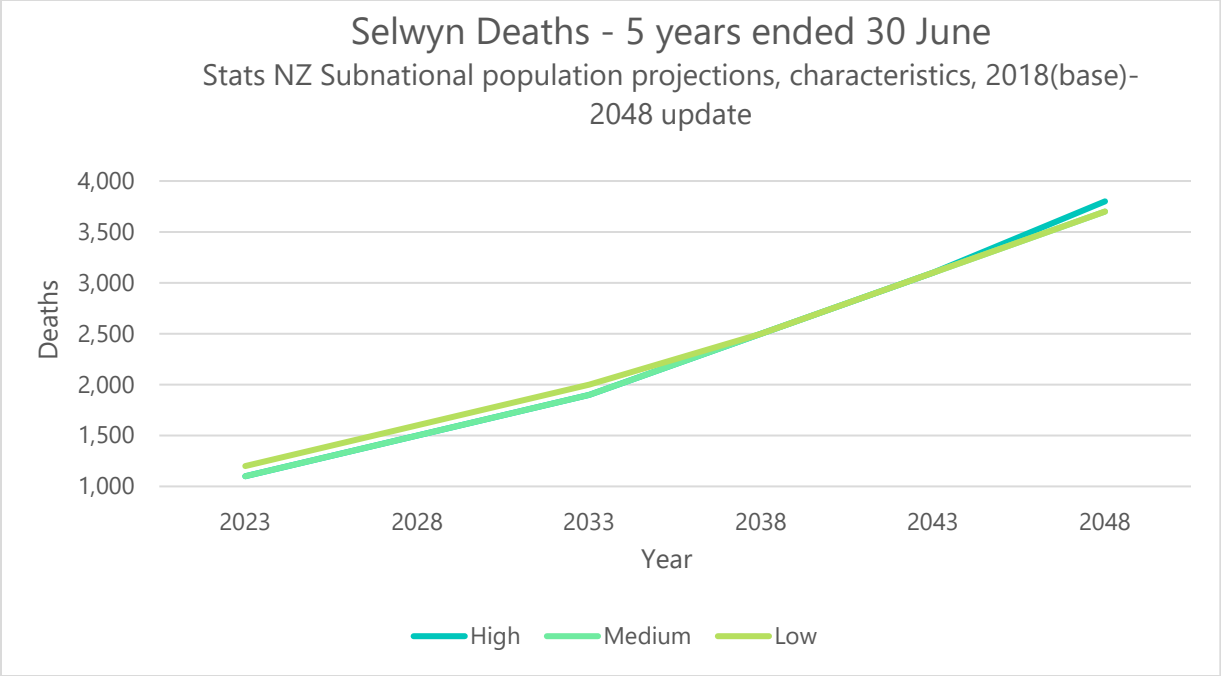
[16] Stats NZ (2023) Deaths increase by ten percent in 2022. www.stats.govt.nz/news/deaths-increase-by-ten-percent-in-2022



Population projections are essential for gaining an understanding of the potential future demand for cemeteries in the Selwyn District. Population projections provide an indication of likely future change based on assumptions about the components of population change being fertility (births), mortality (deaths), and migration.

Mortality assumptions for geographic areas of New Zealand are formulated in terms of male and female age-specific survival rates for each time period. The rates are based on the recent number of registered deaths in each area. The rates are then applied to the population in each area to give the number of people who survive each time period (the number of deaths is calculated indirectly).

Statistics NZ produces a range of alternative projections to illustrate different scenarios for subnational population projections this include three alternative projections designated as 'low', 'medium', and 'high'. The low projection uses low fertility, high mortality, and low net migration, the medium projection uses medium fertility, medium mortality, and medium net migration and the high projection uses high fertility, low mortality, and high net migration.

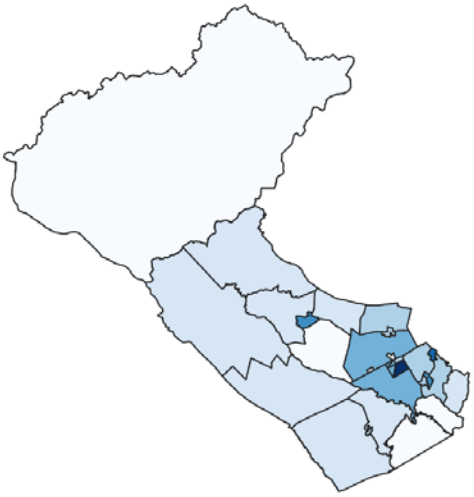


Stats NZ subnational population projections 2018(base)-2048 update is projecting that there could be somewhere in the range of 4,500 and 4,800 in the next 10 years (2023-2033). This represents a 75-86% increase from the projected deaths for the 2021-2030 period being 2,570 deaths.[17] Between 2023-2048, there could be between 13,800 and 14,100 deaths in the Selwyn District.

The spatial distribution of deaths across the Selwyn District will not be uniform, reflecting the variation in age structure, sex and life expectancy across the district. The variation in demographics across the district is expected to correspond with burial trends and preferences which will ultimately influence future demand for cemeteries. The spatial distribution of deaths across the Selwyn District can be discerned from Stats NZ subnational population projections 2018(base)-2048 update which provides deaths for five-year intervals at the SA2 level for low, medium and high projections.

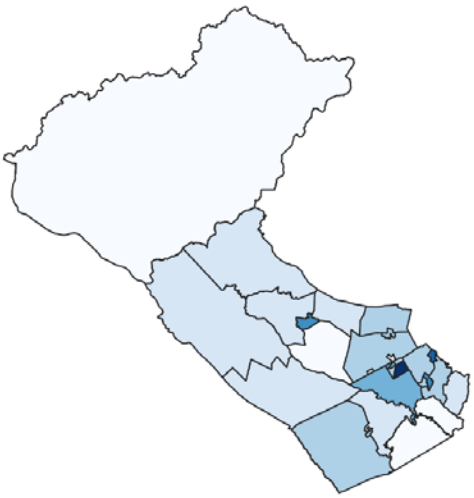
The spatial distribution of projected deaths for the 2023-2048 period for the three Stats NZ subnational population scenarios are shown on the maps below. The darker colours indicate a greater number of projected deaths. The greatest number of projected deaths under all three Stats NZ subnational population scenarios for the 2023-2048 period are in high growth areas of Rolleston, Lincoln, Prebbleton and Darfield.

[17] Selwyn District Council (2021) Community Facilities Activity Management Plan – Section 9: Cemeteries. www.selwyn.govt.nz/__data/assets/pdf_file/0006/459483/ComFac_AcMP_Section_9_Cemeteries_2021.pdf

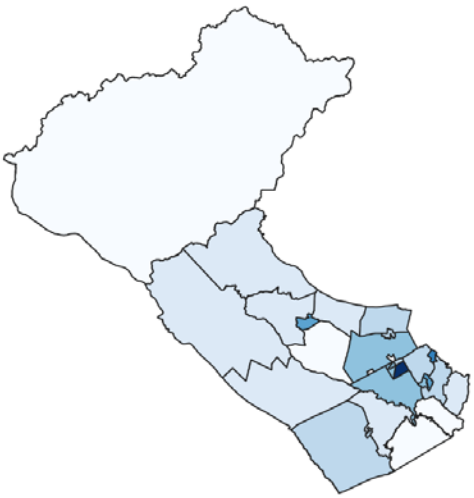


Selwyn Deaths (SA2)
Subnational Population
Projections 2023-2048
(ended 30 June)

Stats NZ Low
- 0 - 200
- 200 - 400
- 400 - 600
- 600 - 800
- 800 - 1000
- 1000 - 1200
- 1200 - 1230



Stats NZ Medium
- 0 - 200
- 200 - 400
- 400 - 600
- 600 - 800
- 800 - 1000
- 1000 - 1200
- 1200 - 1350



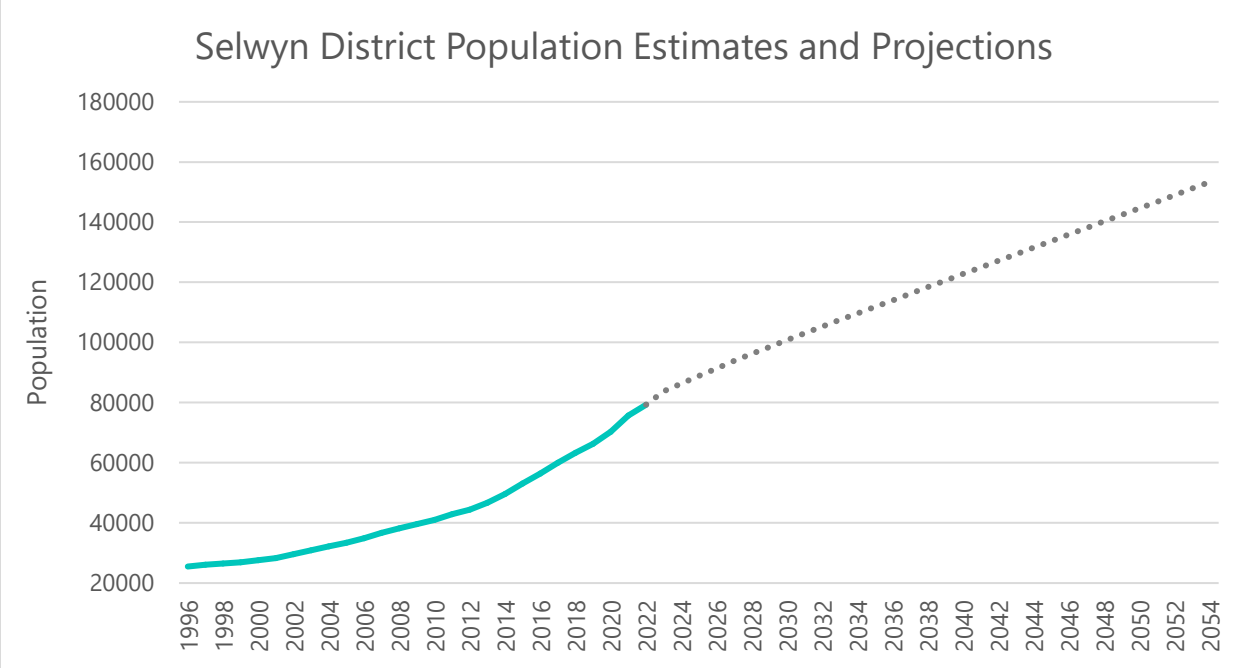
Stats NZ High
- 0 - 200
- 200 - 400
- 400 - 600
- 600 - 800
- 800 - 1000
- 1000 - 1200
- 1200 - 1400
- 1400 - 1500

3. Population, Households and Dwellings Projections

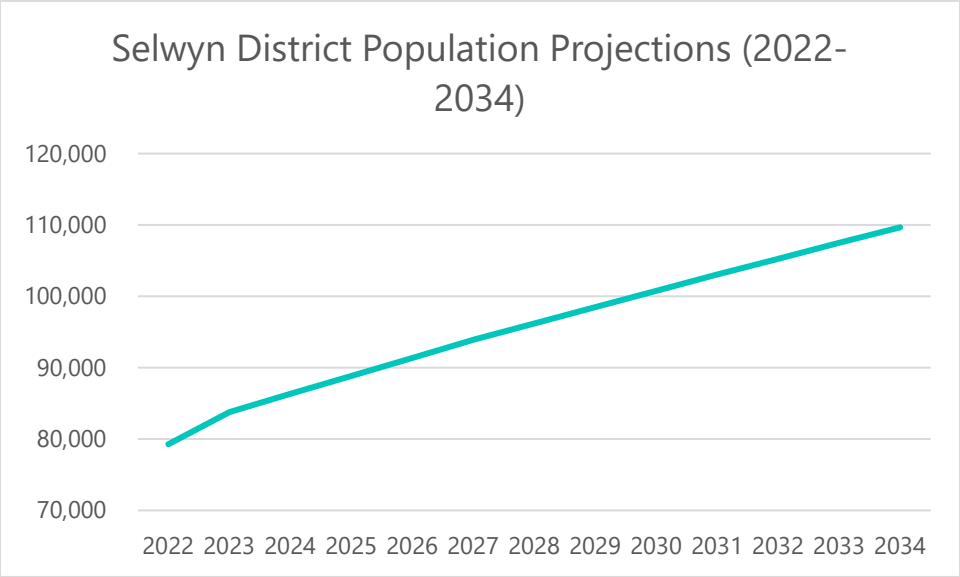
A key output of the SCGM are projections for population, households and dwellings at the district and sub-district level. These residential demand projections are critical to informing growth planning.

Population Projections

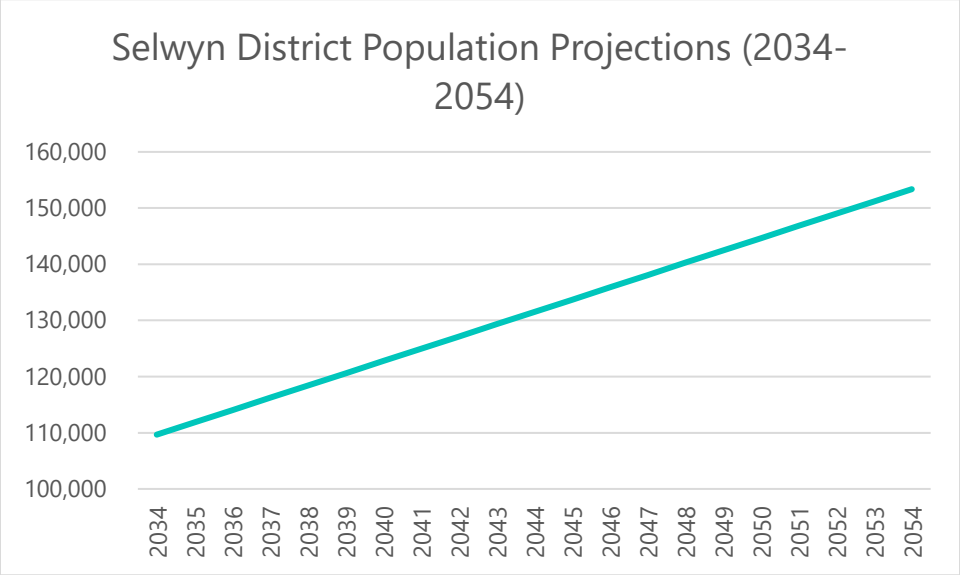
The population projections establish the number of people that are expected to live within the Selwyn District over the coming decades and the associated demand for dwellings and residential land. The population projections are important because the community generates demand for infrastructure and other Council services. The SCGM applies a standard cohort component method to project future population applying Stats NZ assumptions for fertility, mortality and net migration. Specifically, the population in a given year is equal to the population in the previous year plus births, less deaths, and plus net migration.



The SCGM projects that the population of the Selwyn District will increase from 79,300 in 2022 to 109,664 in 2034 which represents a population increase of 43,696 in the next twelve years.

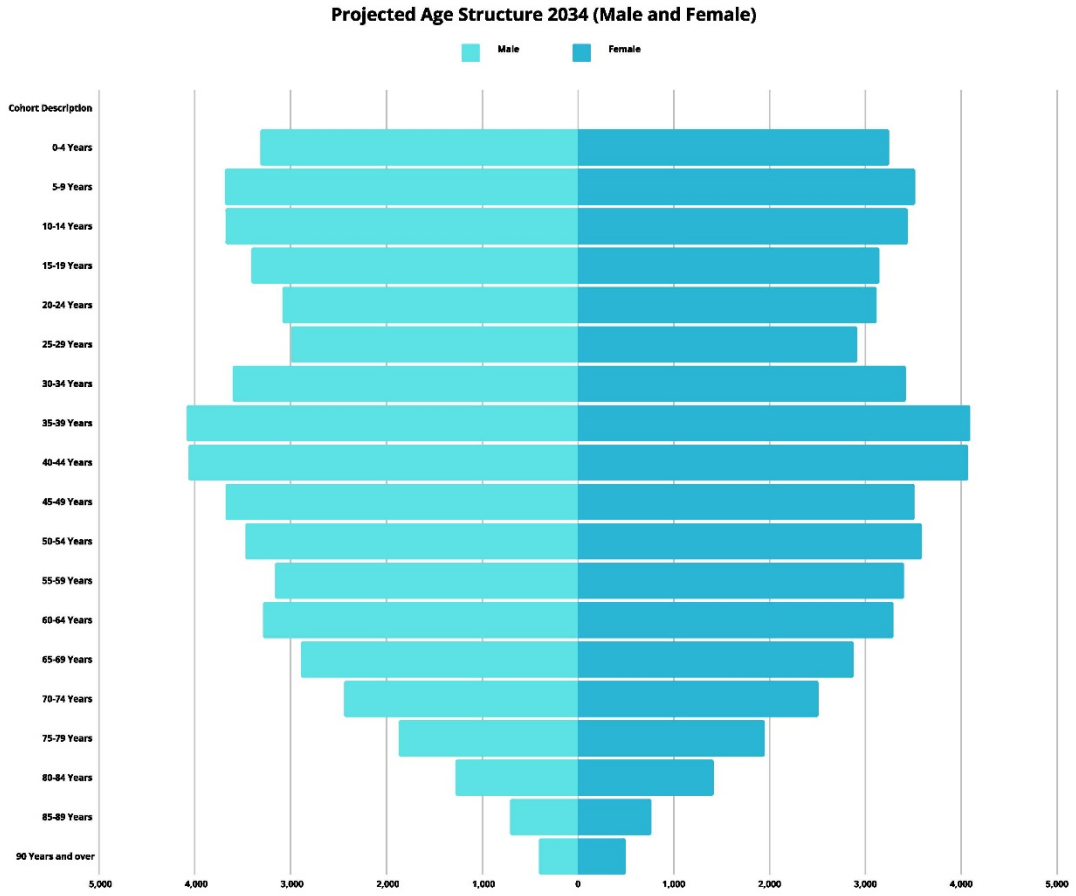


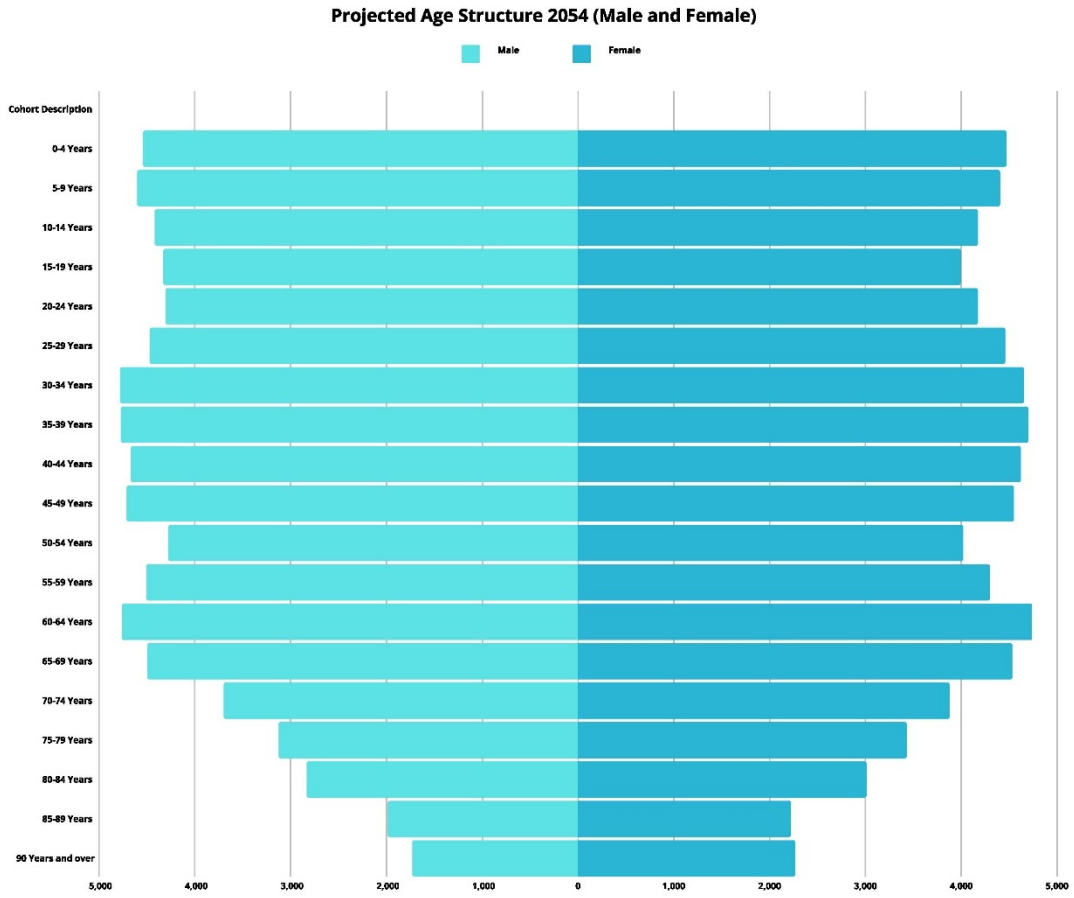
The population of the Selwyn District is expected to grow to 153,360 by 2054 which represents a population increase 74,060 in the next thirty two years.



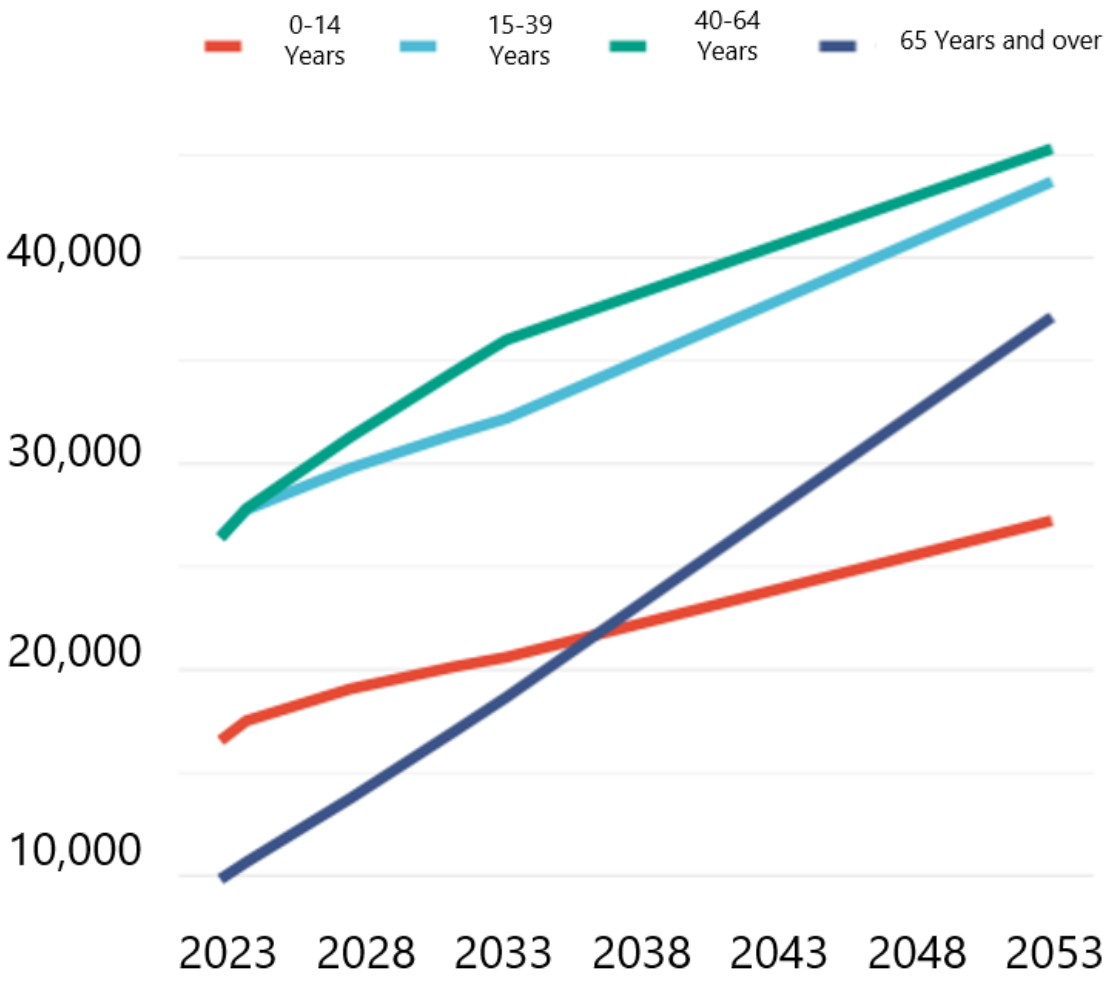
Age Structure

As previously mentioned, there has already been evidence of an ageing population in the Selwyn District. Stats NZ SA2 population projections, by age and sex, 2018(base)-2048 confirm that the passing of 20% aged 65+ years milestone is expected to occur around 2038. In 2022 12.4% of the Selwyn population was aged 65+, the proportion of the population aged 65+ is projected to increase to 17.82% of total population by 2034 and 24.2% of the population by 2054. The 65+ age group along with the 0-14 age group represents the dependents of a population. In 2022 33% of the total Selwyn population were dependents, the proportion of the population that are dependents is project to increase to 36.84% by 2034 and 41.54% by 2054. The 2022 working age population (aged 15-64) made up 67% of Selwyn's total population. The working age population as a proportion of Selwyn's total population is projected to decline to 64% in 2034 and 58.5% by 2054. The population pyramids below show the age structure of the projected population in 2034 and 2054.





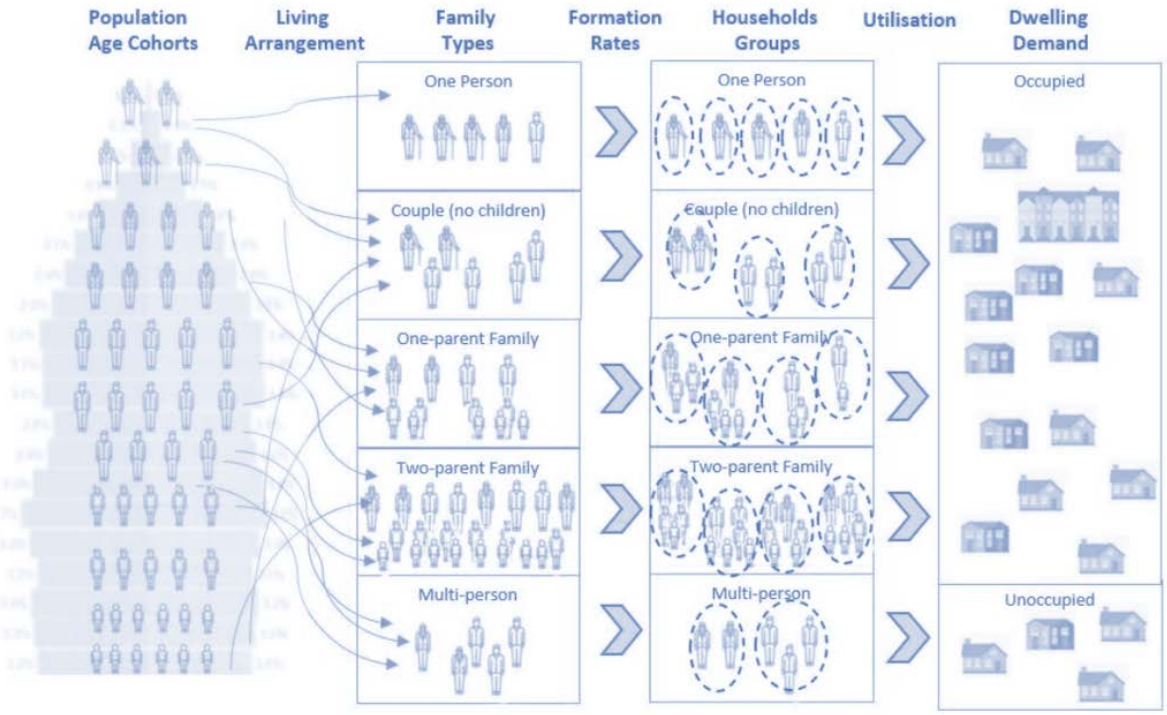
The population change between 2023 and 2054 is show on the graph below. Although population growth is anticipated across all age groups, there is strong growth in the 65 years and above age group.



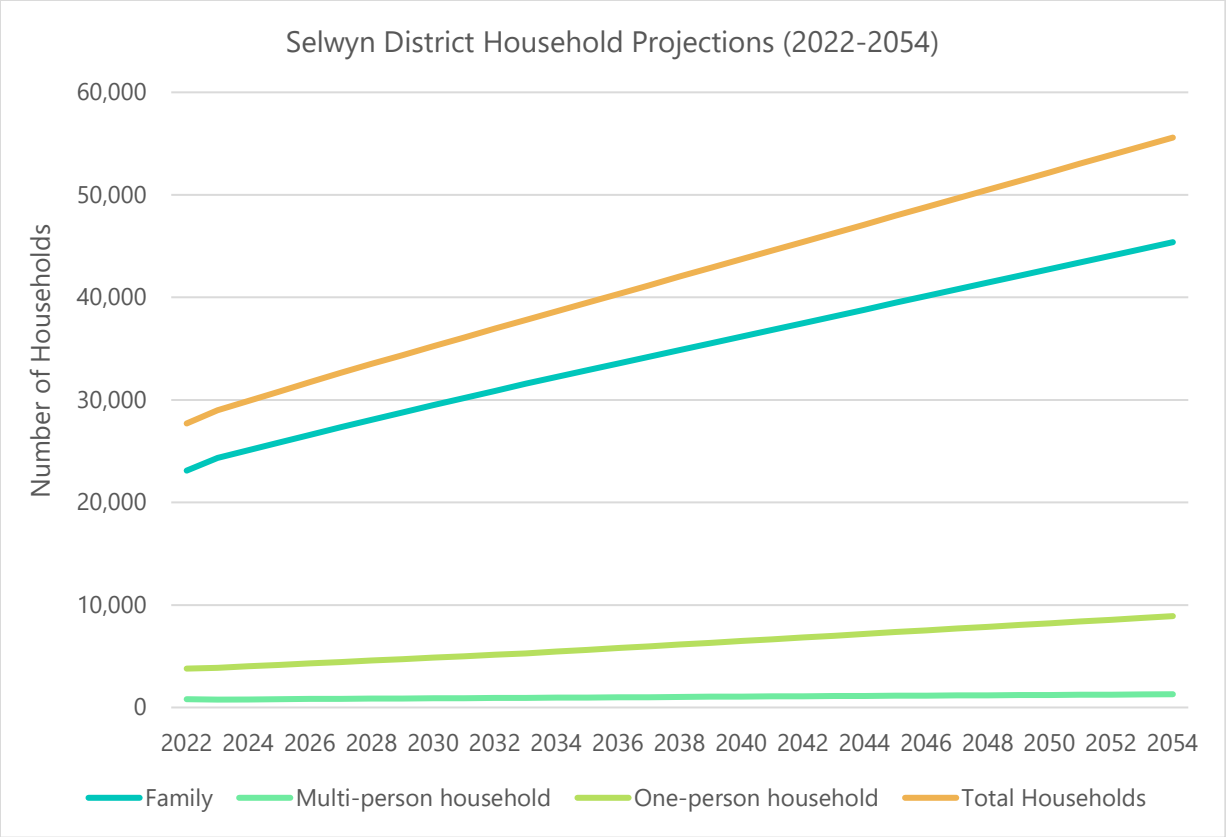
The population pyramids of our largest towns for 2034 and 2054 are presented in Appendix 3.

Households and Dwellings Projections

The SCGM estimates the number of households and dwellings that the future population will require. The SCGM uses the official Statistics New Zealand assumptions for living arrangement and household formation rates to convert the projected population to families and households. The resulting households are used to establish the number of dwellings, both occupied and unoccupied, based on utilisation recorded in the Census. The SCGM uses the official Stats NZ assumptions for living arrangement and formation rates which means that the projections are consistent with the official projections, however they have been updated to a newer (2022) base year which provides a contemporary set of projections that reflect the growth that has eventuated since 2018.



The SCGM projects that the number of households in the Selwyn District will increase from 27,703 in 2022 to 38,634 in 2034 which represents an increase of 10,931 households in the next ten years. Furthermore, the SCGM projects that the number of households in the Selwyn District by 2054 will be 55,587 which represents an increase of 27,884 households in the next thirty years. The projections indicate that there will be a doubling (over a 100% increase) in the number of households by 2054.



Households consist of the following three broad household types:

- family household;
- other multi-person household; and
- one-person household.

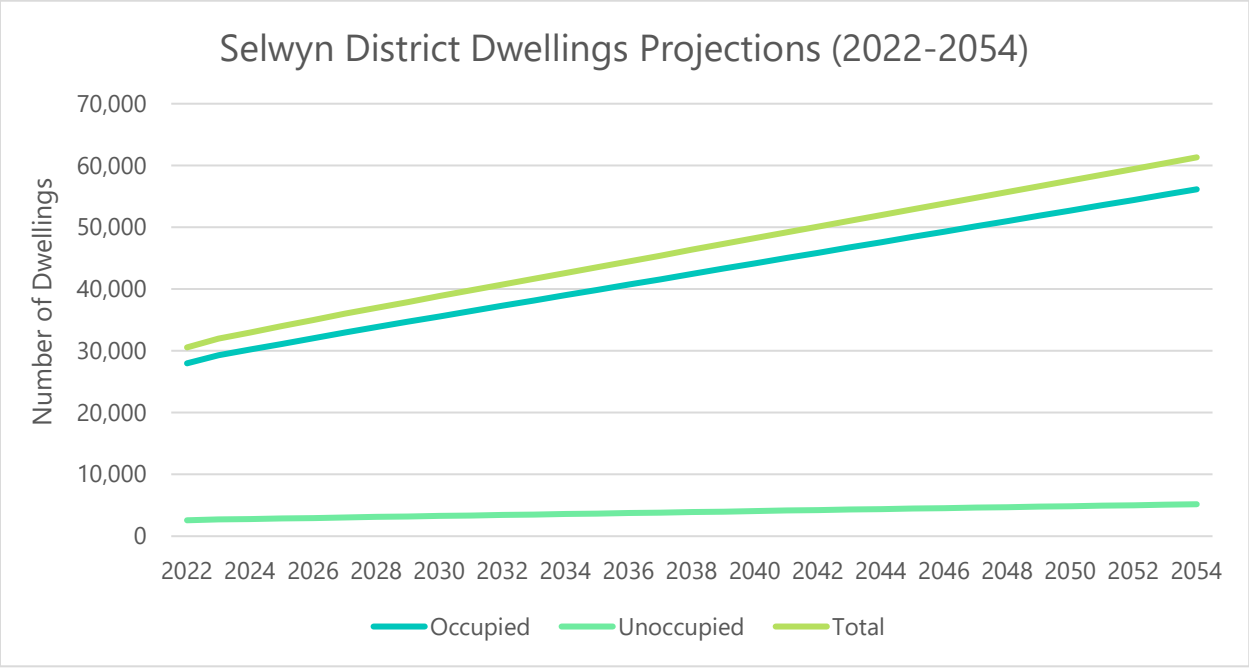
The SCGM projects that over the next thirty years there will be a continuation of strong growth of family households. A family household is two or more people living in the same household who are either a couple, with or without child(ren), or one parent and their child(ren). Family households represented 84% of total households in the Selwyn District in 2022. This composition is expected to remain relatively unchanged for the next ten years with family households projected to represent 83% of total households in 2034. Over the thirty years there is a projected small decrease of this household type to 81% of total households in 2054.

There is also strong growth projected for one-person households which is due to the increasing number of people at older ages. In 2022, 13.7% of total households were one-person households, in 2054 the proportion of total households that are one-person households is closer to 16%. An ageing population has will result in an increase in couple-only and one-person households as a proportion of total households. Other multi-person households, which generally include unrelated people living together in a household, are increasing more slowly over the next thirty years.

The estimate of the expected number of households in the District is important as there is close to a one-to-one relationship to dwelling demand. The relationship between households and dwellings is

however never exactly one-to-one, as there will always be dwellings that are unoccupied (on the market for sale or rent, under renovation) or only occupied for short periods (private holiday homes, short term rentals).

The SCGM projects that the number of dwellings in the Selwyn District will increase from 30,559 in 2022 to 42,617 in 2034 which represents an increase of 12,058 dwellings in the next ten years. Furthermore, the SCGM projects that the number of dwellings in the Selwyn District by 2054 will reach 61,318 which represents an increase of 30,759 dwellings in the next thirty years. The projections indicate that there will be a doubling (over a 100% increase) in the number of dwellings by 2054.



Township Population, Households and Dwellings Projections

The spatial nature of growth is important for forward planning. The SCGM allocates demand to locations in the Selwyn District using a midpoint between the demand shares in the Stats NZ projections SA2 and recent building consents (2019-2022).

Since the projections were prepared for LTP 2021-2031, there has been sustained and immense growth in the district. The updated projections which use the Stats NZ 2022 base year have Rolleston achieving the status of city around 2050.[18] This means that Rolleston by 2050 would be comparable to present day small cities of Rotorua, Nelson, Invercargill, Whangārei, Whanganui and Hastings. Rolleston is projected to receive around 38% of the Selwyn District's total population between 2022-2034.

Strong growth is projected for all of the townships in the Greater Christchurch portion of the district. Lincoln is project to grow a population of just over 20,000 by 2054 which is comparable to Rolleston in 2019. Lincoln is projected to receive around 15.8% of the Selwyn District's total population between 2022-2034. Prebbleton is projected to grow to a population of 8,525 which is comparable to present

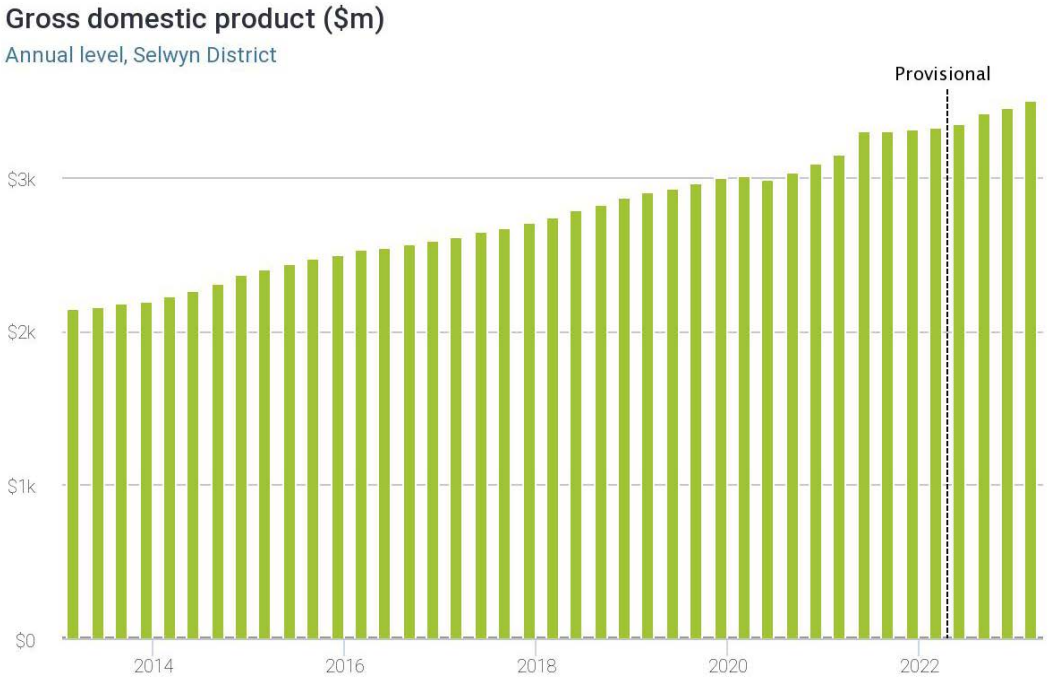
[18] Schedule 3 of the Local Government Act (2002)

day Lincoln. Prebbleton is projected to receive around 4.7% of the Selwyn District's total population between 2022-2034. West Melton and Darfield are projected to each receive around 4.6% of the Selwyn District's total population between 2022-2034. The population, households and dwellings projections by township are included in Appendix 4 of this report.

4. Economy

Economic Output

The Selwyn economy continues to experience strong growth and outperform the rest of the country. Over the last decade Gross Domestic Product (GDP) has grown on average of 5.3% per annum compared with an average of 3% per annum in the national economy. Infometric's provisional estimate for Selwyn's GDP for the year to March 2023 (2022 prices) is $3,507 million.

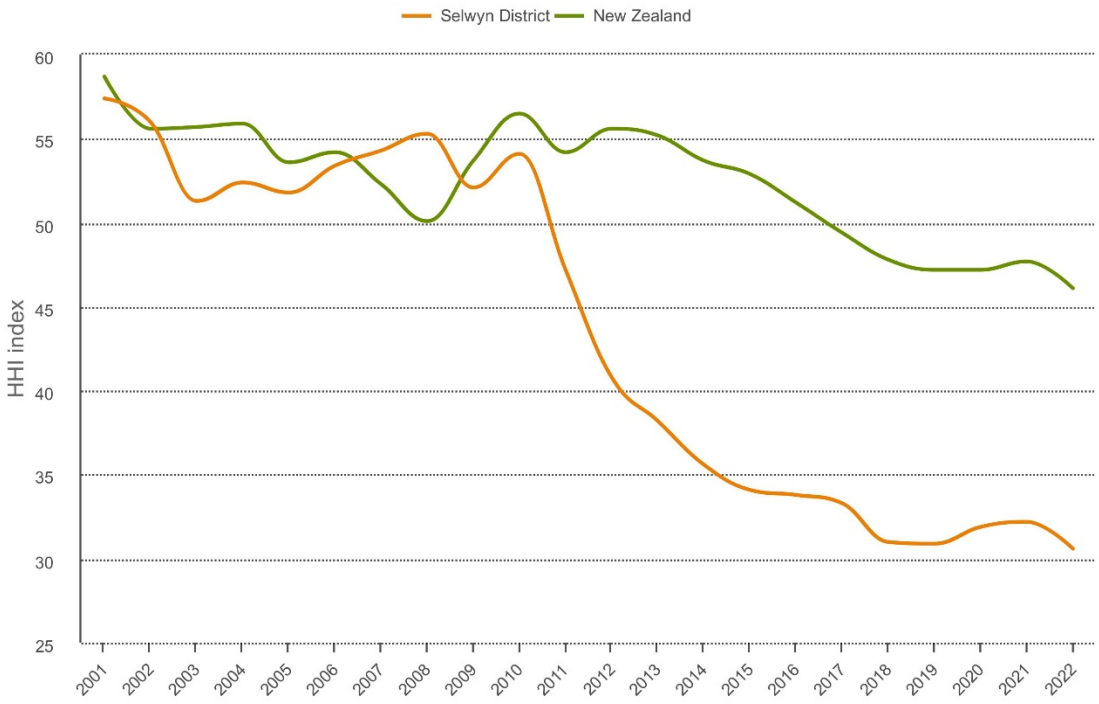


Structure of the Selwyn Economy

The Selwyn economy is largely intertwined with the economy of Christchurch City, particularly given the role of the Selwyn District in the Greater Christchurch metropolitan area. Proximity to Christchurch City has had largely positive implications on the Selwyn economy and evidence for a 'weak local economy' (because of this proximity or formation of a 'dormitory district' solely supplying labour for Christchurch City) has been largely unfounded.

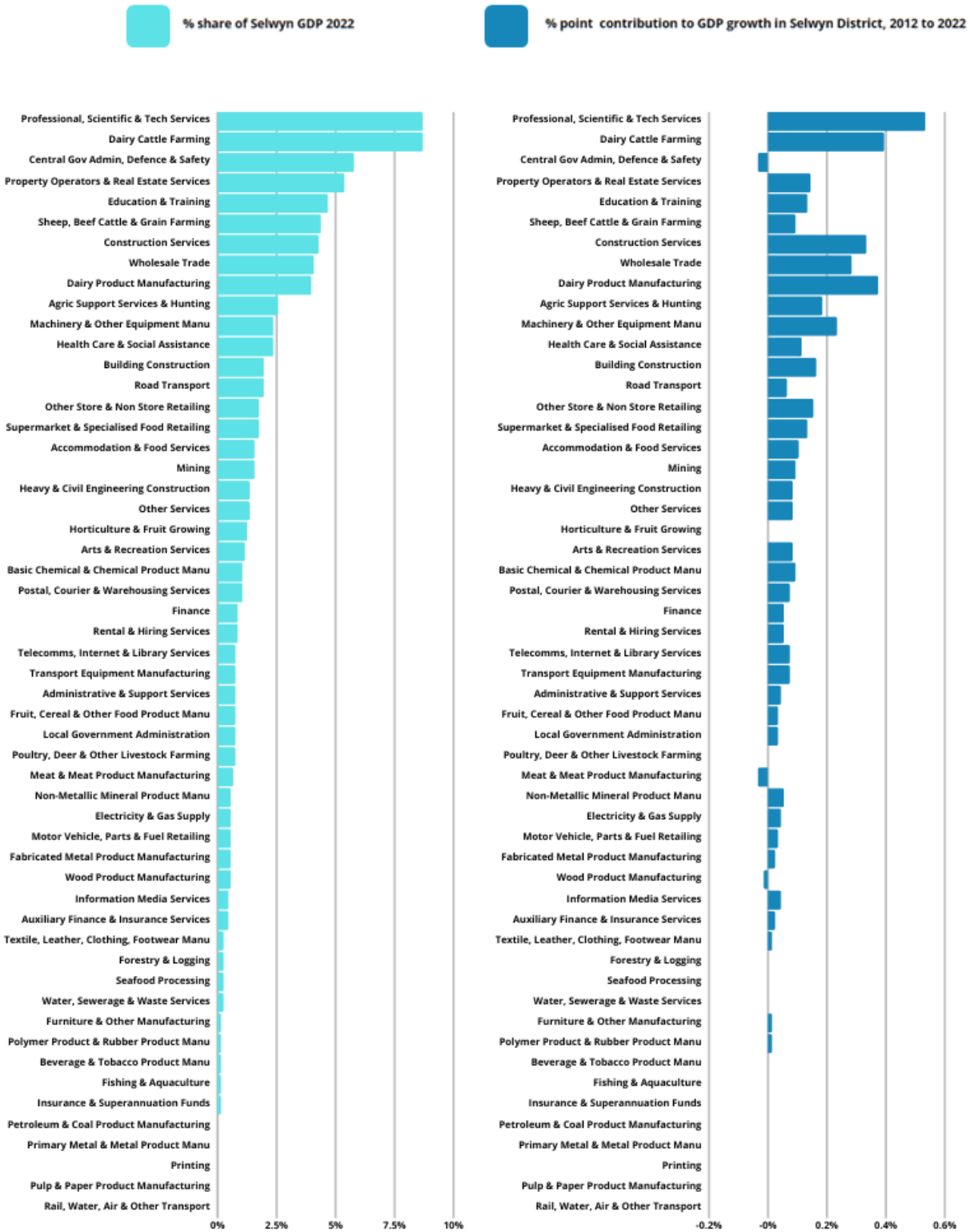
The structure of an economy provides an understanding of how different sectors contribute to GDP and/or employment. Even with an increasingly urbanising district, the rural economy continues to remain an important aspect of the Selwyn economy. The immense growth and development in the past two decades has meant that the Selwyn economy has undergone considerable change.

Professional services, manufacturing, logistics, retail, construction, wholesale trade and education have a much greater role in the local economy than decades ago. The Selwyn economy has also become increasingly structurally diverse, with less concentration on a few industries. Infometrics's Herfindahl-Hirschman Index (HHI), a common measure of economic concentration or diversity shows that the Selwyn economy has greatly diversified since 2011 and is more industrially diverse than the national average. The higher the index, the more concentrated economic activity is on a few industries.



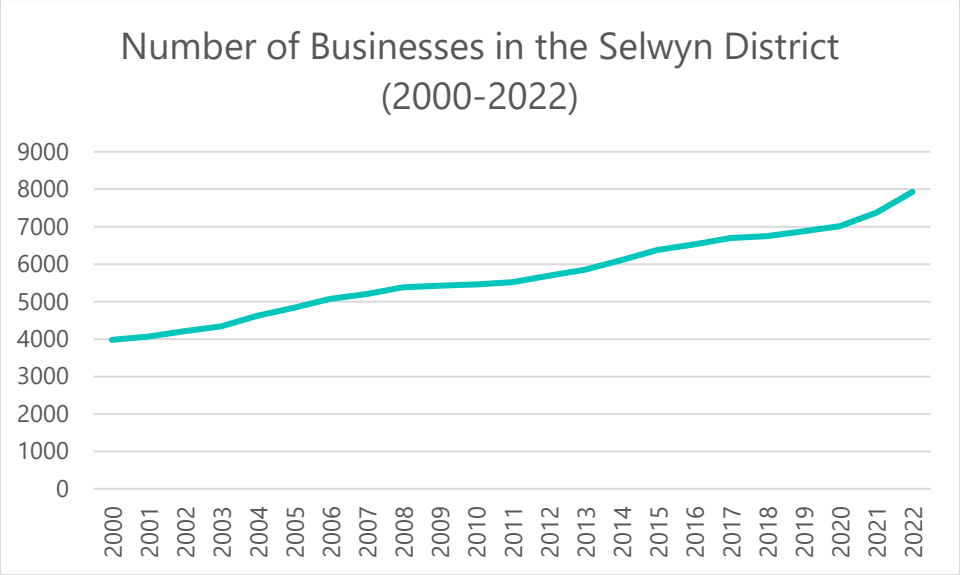
The tables below show the structure of the Selwyn economy in 2022 and the change in contribution to GDP by certain the last decade (2012-2022) using the most detailed level available of the Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006 being class.[19]

[19] ANZSIC 2006 classifies industries by a four-level hierarchical structure, division (the broadest level), subdivision, group and class (the finest level).

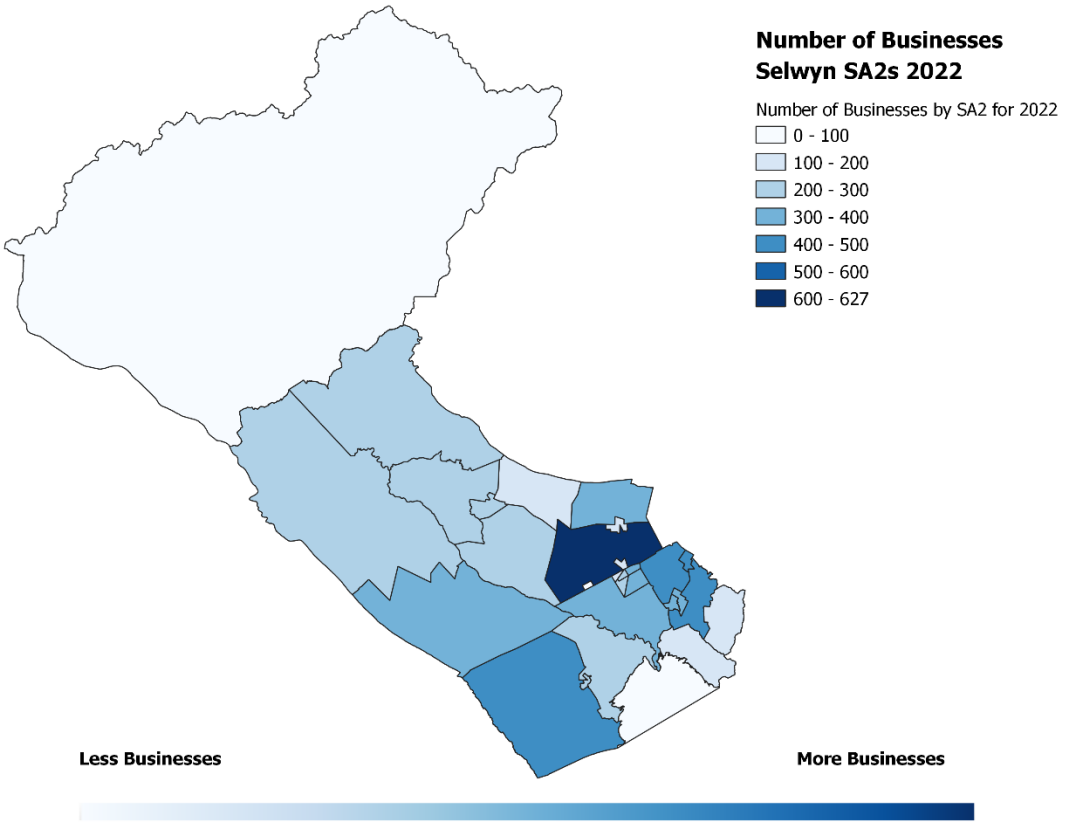

% share of Selwyn GDP 2022
% point contribution to GDP growth in Selwyn District, 2012 to 2022
Professional, Scientific & Tech Services
Dairy Cattle Farming
Central Gov Admin, Defence & Safety
Property Operators & Real Estate Services
Education & Training
Sheep, Beef Cattle & Grain Farming
Construction Services
Wholesale Trade
Dairy Product Manufacturing
Agric Support Services & Hunting
Machinery & Other Equipment Manu
Health Care & Social Assistance
Building Construction
Road Transport
Other Store & Non Store Retailing
Supermarket & Specialised Food Retailing
Accommodation & Food Services
Mining
Heavy & Civil Engineering Construction
Other Services
Horticulture & Fruit Growing
Arts & Recreation Services
Basic Chemical & Chemical Product Manu
Postal, Courier & Warehousing Services
Finance
Rental & Hiring Services
Telecomms, Internet & Library Services
Transport Equipment Manufacturing
Administrative & Support Services
Fruit, Cereal & Other Food Product Manu
Local Government Administration
Poultry, Deer & Other Livestock Farming
Meat & Meat Product Manufacturing
Non-Metallic Mineral Product Manu
Electricity & Gas Supply
Motor Vehicle, Parts & Fuel Retailing
Fabricated Metal Product Manufacturing
Wood Product Manufacturing
Information Media Services
Auxiliary Finance & Insurance Services
Textile, Leather, Clothing, Footwear Manu
Forestry & Logging
Seafood Processing
Water, Sewerage & Waste Services
Furniture & Other Manufacturing
Polymer Product & Rubber Product Manu
Beverage & Tobacco Product Manu
Fishing & Aquaculture
Insurance & Superannuation Funds
Petroleum & Coal Product Manufacturing
Primary Metal & Metal Product Manu
Printing
Pulp & Paper Product Manufacturing
Rail, Water, Air & Other Transport
0%
2.5%
5%
7.5%
10%
-0.2%
-0%
0.2%
0.4%
0.6%

Businesses

Local authorities have significant influence on creating an attractive and supportive business environment. Local authorities can reduce the regulatory and non-regulatory barriers, costs, risks uncertainties in all forms of commercial activity to stimulate and support local business growth, local business retention and the attraction of new business to the local area. Selwyn has a flourishing business environment, with a high rate of business start-ups and a low business death rate. In the last 10 years the number of businesses in the Selwyn District has increased by almost 40%, from 5,685 in 2012 to 7,929 in 2022. Since 2012, there has been significant growth in the demand for commercial land, leading to the expansion of existing commercial centres and new commercial developments. There is high occupancy of existing commercial premises and strong demand for commercial land. Industrial areas have greatly expanded due to Council's proactive approach to provide industrial land in a well-connected location which attracted businesses (pull) to relocate from Christchurch City following the Canterbury Earthquake Sequence 2010-2011 (push). This industrial specialisation is a comparative advantage of the Selwyn District and has led to agglomeration benefits.



Stats NZ business demography statistics show the spatial distribution of businesses across the Selwyn District. Over the past few decade the growth in the number of businesses has been exponential in Rolleston, Lincoln, West Melton, and Prebbleton reflecting population growth due to household demand.

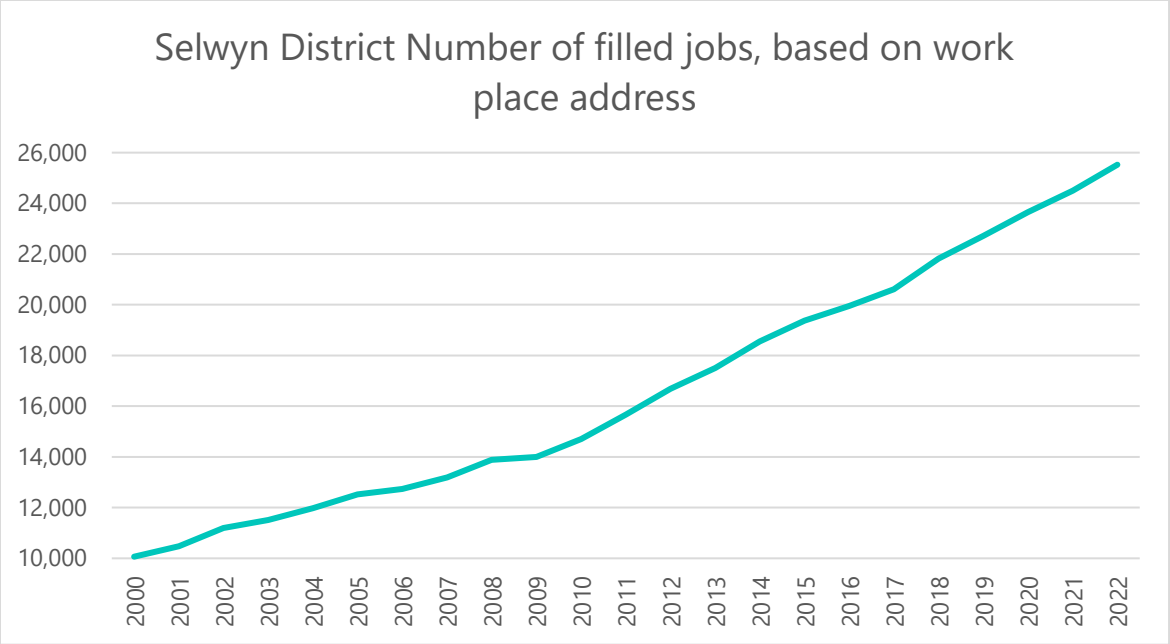


Employment

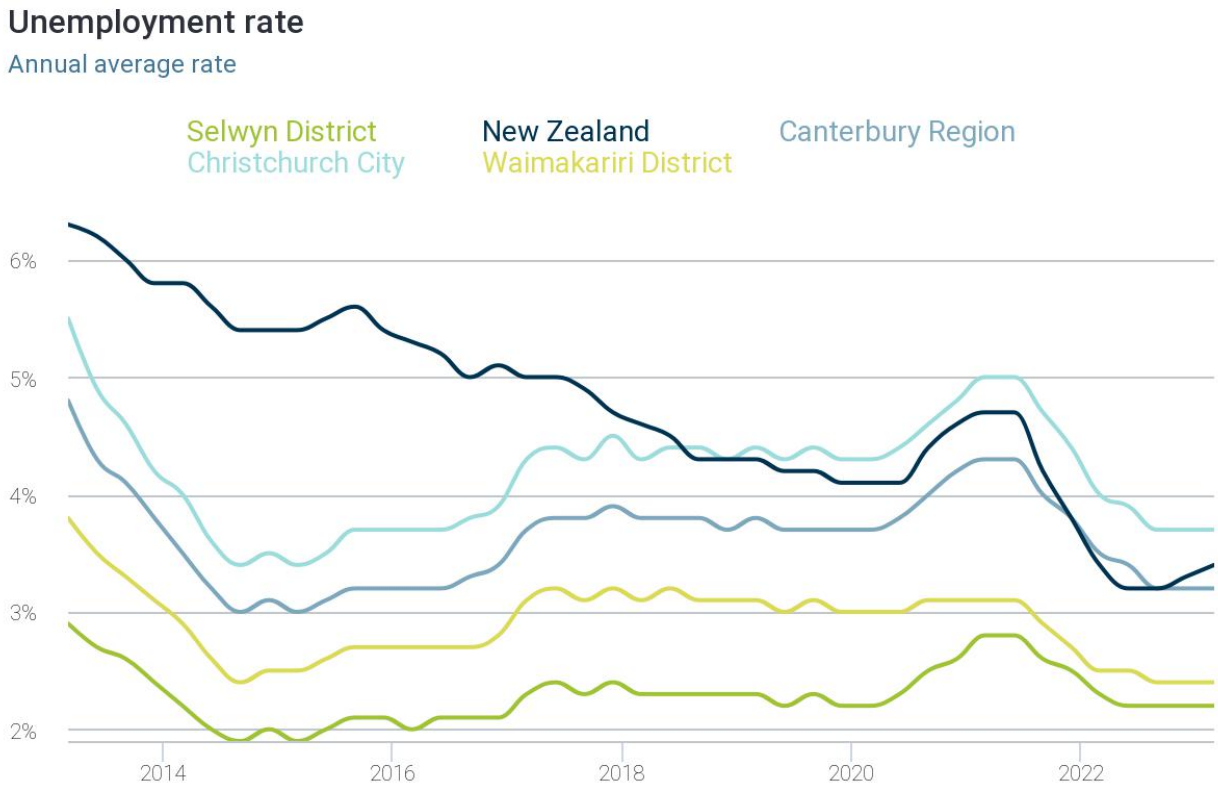
The Selwyn District economy has been supported by an increasing population fuelled by internal net migration (approximately 80% of growth), due to the attraction of the high-quality of life offered in the district. Selwyn's population growth is fuelled by migration of a particular demographic, which has led significant gains in the working-age population and reduction of the dependency ratio.[20] The future dependency ratio of the Selwyn population has implications on the services that are provided, a high youth dependency ratio requires greater investment in education facilities whereas a high old-age dependency ratio requires greater investment in aged-care and healthcare.

Economic growth can come from growth in inputs (such as labour and capital) or from producing more with the same inputs (productivity growth). For the Selwyn District population growth has been a strong driver of economic growth in terms of total economic output due to the increase in the labour input. In addition to GDP, economic growth has also been measured by employment or 'filled jobs' - a labour demand measure. The number of filled jobs has increased from around 16,700 jobs in 2012 to over 25,000 jobs in 2022 (around 50% in the last ten years).

[20] The **dependency ratio** is the number of under 15-year-olds and over 65-year-olds as a ratio of the rest of the population (working age).

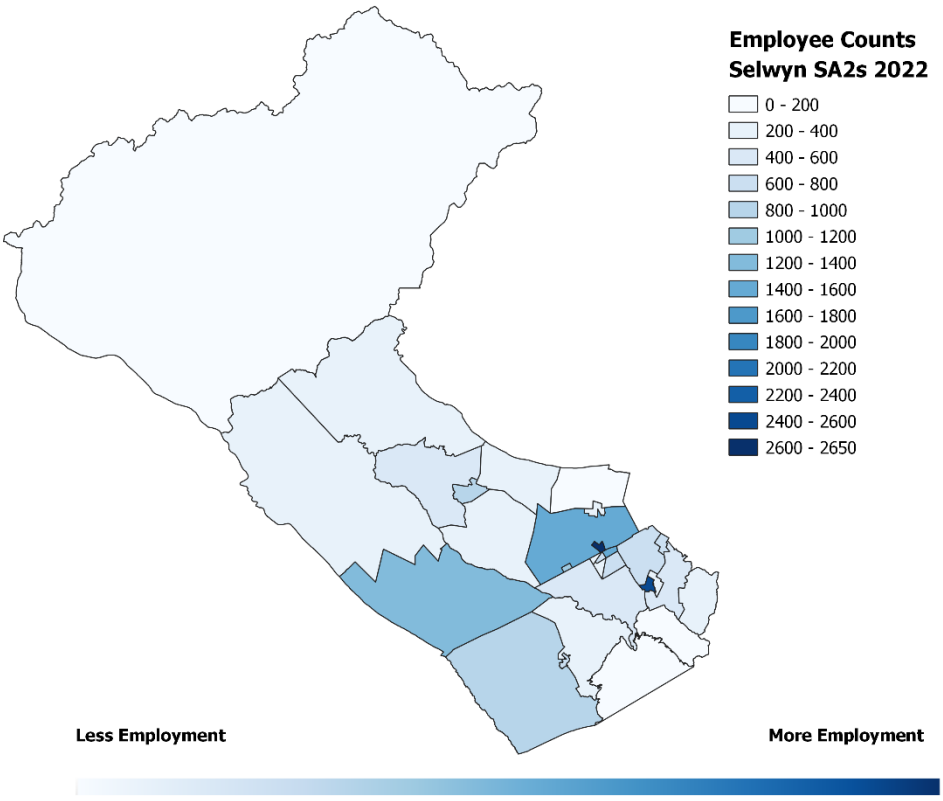


The Selwyn District has maintained a low unemployment rate (2.2% in 2023) that has remained consistently below the national average, regional average and other Greater Christchurch territorial authorities.

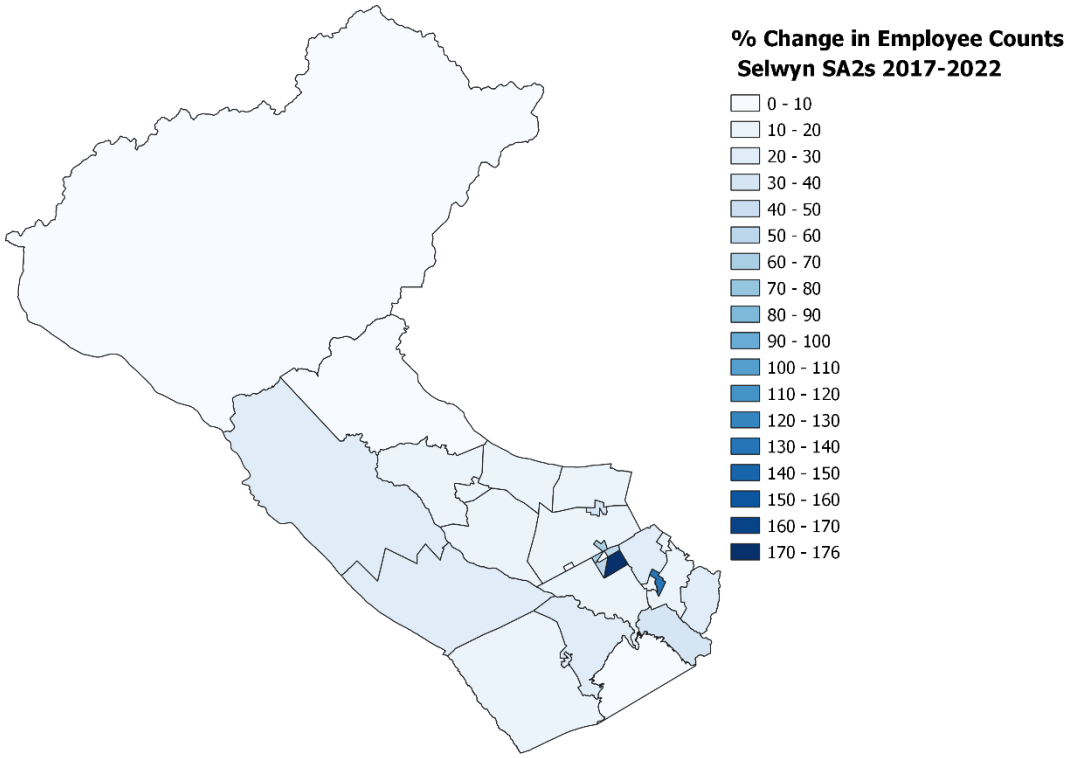


Employment by Area (SA2)

The spatial distribution of employment across the Selwyn District is far from uniform. The eastern areas of the Selwyn District have experienced the greatest growth in the last few years in terms of population, commercial activity and employment. Business demography can spatially represent the distribution of economic activity in the Selwyn District. The map below shows the most 'job dense' areas of the Selwyn District based on Stats NZ employee counts for 2022 by SA2.

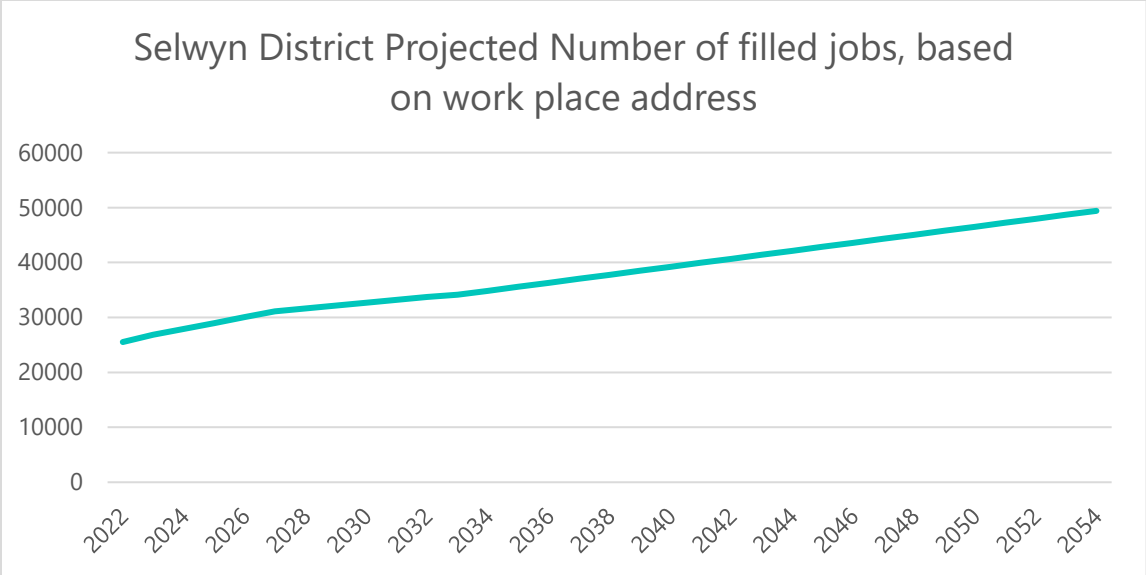


Unsurprisingly, SA2 areas Lincoln West (Lincoln University and Crown Research Institutes) and Rolleston IZone are the most employment dense areas in the District. There is also a considerable employment in wider Rolleston, Darfield, Southbridge, Burnham and the Bankside SA2 area adjacent to the township of Rakaia in the Ashburton District. The map below shows the percentage change in employment in the last five years (between 2017 and 2022) by SA2. It is clear that Rolleston, Lincoln and Prebbleton have experienced the greatest level of employment growth in the last five years.



Employment Projections

Economic projections produced for the Selwyn District show that employment is projected to grow from around 25,524 jobs in 2022 to around 49,400 jobs in 2054. This represents an increase of 23,876 jobs (93%) an effective doubling of the filled jobs in the Selwyn District. In the next ten years employment is projected to increase by an additional 9,314 jobs to a total of 34,838 jobs in 2034.



The employment projections provide detail on the change in employment by industry, which provides a greater indication of the projected changes to the Selwyn economy. The table below shows the change in the total number of filled jobs by ANZSIC broad divisions.

ANZSIC (2006) One Digit Code	ANZSIC (2006) One Digit Description	Number of Filled Jobs				% change in number of filled jobs	
		2022	2024	2034	2054	2024 - 2034	2024 - 2054
A	Agriculture, Forestry and Fishing	4,487	4,755	5,708	5,736	20%	21%
B	Mining	87	88	77	69	-12%	-21%
C	Manufacturing	3,252	3,535	4,521	5,895	28%	67%
D	Electricity, Gas and Water Supply	36	37	41	48	12%	29%
E	Construction	3,191	3,373	3,724	3,809	10%	13%
F	Wholesale Trade	991	1,111	1,436	2,208	29%	99%
G	Retail Trade	1,793	1,971	2,418	3,655	23%	85%
H	Accommodation and Food Services	1,286	1,439	1,758	2,324	22%	61%
I	Transport, Postal and Warehousing	846	960	1,261	1,809	31%	88%
J	Information Media and Telecommunications	202	218	263	376	20%	73%
K	Financial and Insurance Services	178	194	236	343	22%	77%

L	Rental, Hiring and Real Estate Services	622	674	816	1,170	21%	73%
M	Professional, Scientific and Technical Services	1,907	2,068	2,507	3,380	21%	63%
N	Administrative and Support Services	426	481	632	942	32%	96%
O	Public Administration and Safety	1,668	1,800	2,150	3,194	19%	77%
P	Education and Training	2,518	2,844	3,955	8,458	39%	197%
Q	Health Care and Social Assistance	909	1,102	1,714	3,456	56%	214%
R	Arts and Recreation Services	380	424	546	854	29%	101%
S	Other Services	745	830	1,074	1,672	29%	101%

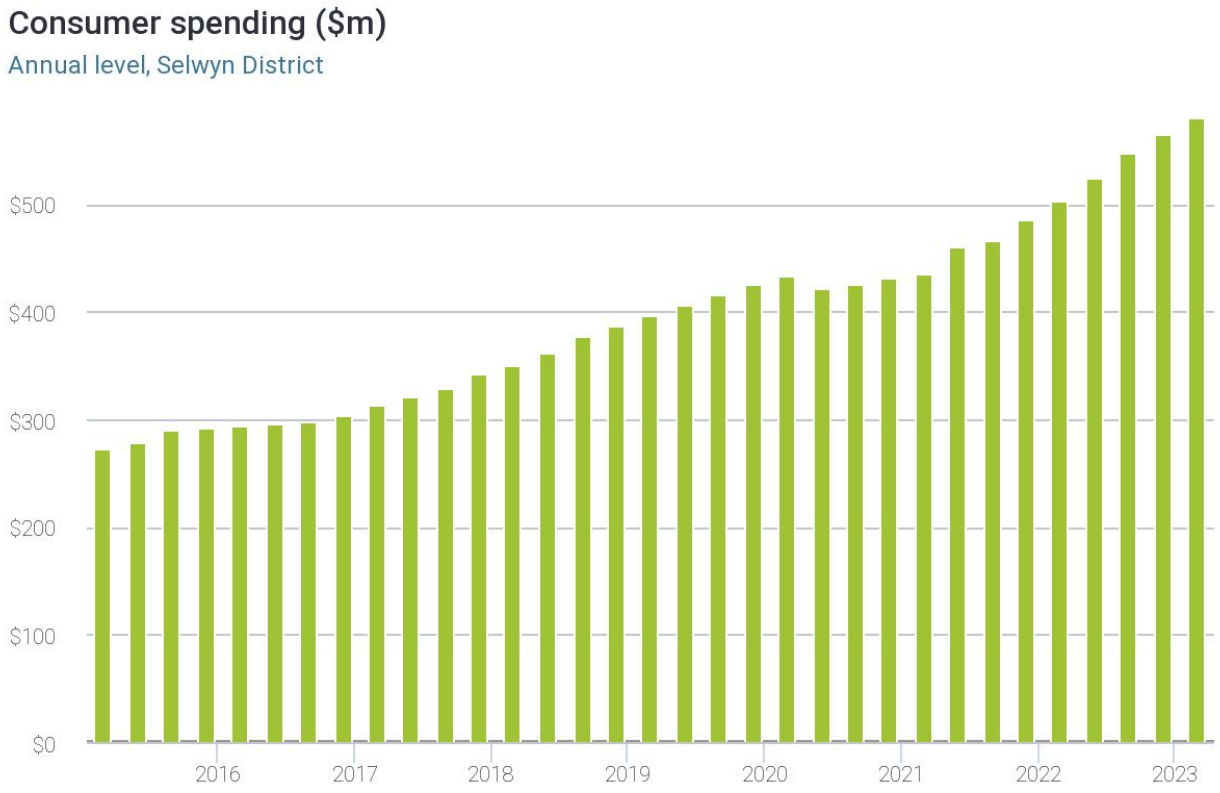
Growth in employment is projected across a broad range of sectors of the Selwyn economy. In the medium-term, retail trade, manufacturing, financial and insurance services, professional, scientific and technical services, financial and insurance services, other services, rental, hiring and real estate services, transport, postal and warehousing are all projected to have strong employment growth. Over both the medium-term and long-term, the arts and recreation services, health care and social assistance, education and training sectors are projected to have strong employment growth. This reflects population growth, household demand, population change including ageing and the continuation of families moving to the Selwyn District.

Agriculture, forestry and fishing is currently the largest sector for employment in the Selwyn District (4,487 jobs) and is projected to remain the largest sector for employment for the Long-Term Plan period (5,708 jobs by 2034). Between 2034 and 2050, employment growth in agriculture, forestry and fishing is projected to slow, and the sector will be replaced as the top sector for employment in the Selwyn District by the education and training sector. In the early 2050s, agriculture, forestry and fishing is projected to fall from the second to the third biggest sector in terms of employment in the Selwyn District economy. This is due to the employment growth associated with the manufacturing sector which is projected to surpass agriculture, forestry and fishing in terms of employment in the early 2050s.

Other services which include a broad range of personal services; religious, civic, professional and other interest group services; selected repair and maintenance activities; and private households employing staff is expected to have considerable employment growth over the long-term. In the long-term the primary industries and construction are anticipated to have limited employment growth and in the case of mining employment decline.

In the long-term transport, postal and warehousing is projected to experience strong growth, which reflects the strong indicators of agglomeration in the industrial areas of Rolleston. The two inland ports in Rolleston are currently dominated by employment in the manufacturing, construction and wholesale trade industries, however the largest growth of employment in the inland port environs over the last few years has been in the transport, postal and warehousing industry.[21]

In the long-term the retail trade is projected to experience strong growth. Recent high population growth in the Selwyn District has increased demand for and viability of a wider range of goods, services and employment opportunities. Generally, as the population of an area grows, the increasing scale of demand generated can enable new goods to be provided. Household demands for goods and services are a core driver of economic activity in most economies, particularly retail. The annual level of electronic card consumer spending in the Selwyn District reflects population growth.



Until recently Selwyn's centres have played a secondary role to the larger centres present in Christchurch, with a significant outflow of retail spend and employment to urban Christchurch. Currently only 35% of all retail and services spend by Selwyn residents is directed towards Selwyn businesses, and 65% leaks to other destinations, with centres in Christchurch City being by far the most popular destination for Selwyn residents. The graph below shows spending of Selwyn residents within the district (money in) versus spending outside of the district (money out) for the last two years.

[21] Formative (2021) Rolleston Inland Ports Economic Role.

Employment Projections by Area (Township)

The economic projections produced for the Selwyn District show the spatial distribution employment by across the townships that already have a strong employment base (Rolleston, Lincoln, Prebbleton, West Melton, Darfield and Leeston). The table below shows the project change in the number of filled jobs by township.

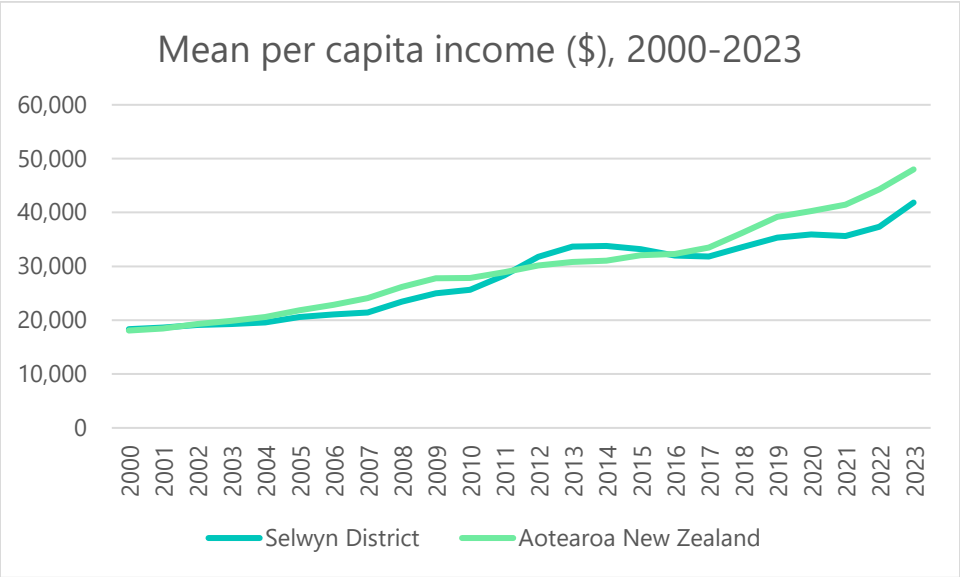
Township	2022	2024	2034	2054	% change (2024-2034)	% change (2034-2054)
Rolleston	6,645	7,306	9,149	13,308	25%	82%
Lincoln	3,224	3,565	4,562	7,541	28%	112%
Prebbleton	854	938	1,164	1,702	24%	81%
West Melton	436	477	587	843	23%	77%
Darfield	1,177	1,308	1,707	2,782	31%	113%
Leeston	898	993	1,265	1,963	27%	98%

Rolleston is projected to remain the largest employment area in the Selwyn District over the long-term with an additional 6,000 jobs between 2024 and 2054. This supports the current position of Rolleston as the key employment area of the Selwyn District, representing approximately 52% of total employment in the Selwyn District in 2022. In terms of a percentage increase, Darfield, Lincoln and Leeston are projected to experience the greatest employment growth over the medium-term and long-term relative to current employment numbers.

Living Standards

Productivity growth drives income growth and thus sustainable long-term improvements in material living standards. Productivity is a measure of the efficiency with which inputs (labour, capital, and raw materials) are converted into outputs (goods and services). Selwyn's GDP per capita has generally shown progressive improvements for the last few decades but still lags behind other territorial authorities. Incomes in Selwyn also lag behind the national average.

Income per capita is a long-standing, comparable, core measure of material wellbeing that also has an important indirect relationship with non-material measures of wellbeing.[22] Mean per capita income in the Selwyn District is $41,849 and is presently lower than the national average $48,006. The gap between the mean per capita income nationally as compared to the Selwyn District as widened from 2016.



There is a persistent productivity problem in the national economy with filters down to the regions and local economies. Poor productivity performance in the national economy is attributable to a small domestic market, geographic isolation, a lack of large firms competing internationally, shallow capital markets, lack of domestic competition, and lack of international connections. Economic growth has been based on increasing inputs, mainly labour by increasing number of hours worked but also from depleting capital stocks (especially natural capital). Lifting productivity is essential for raising incomes, material living standards, and overall quality of life.

Visitors and Tourism

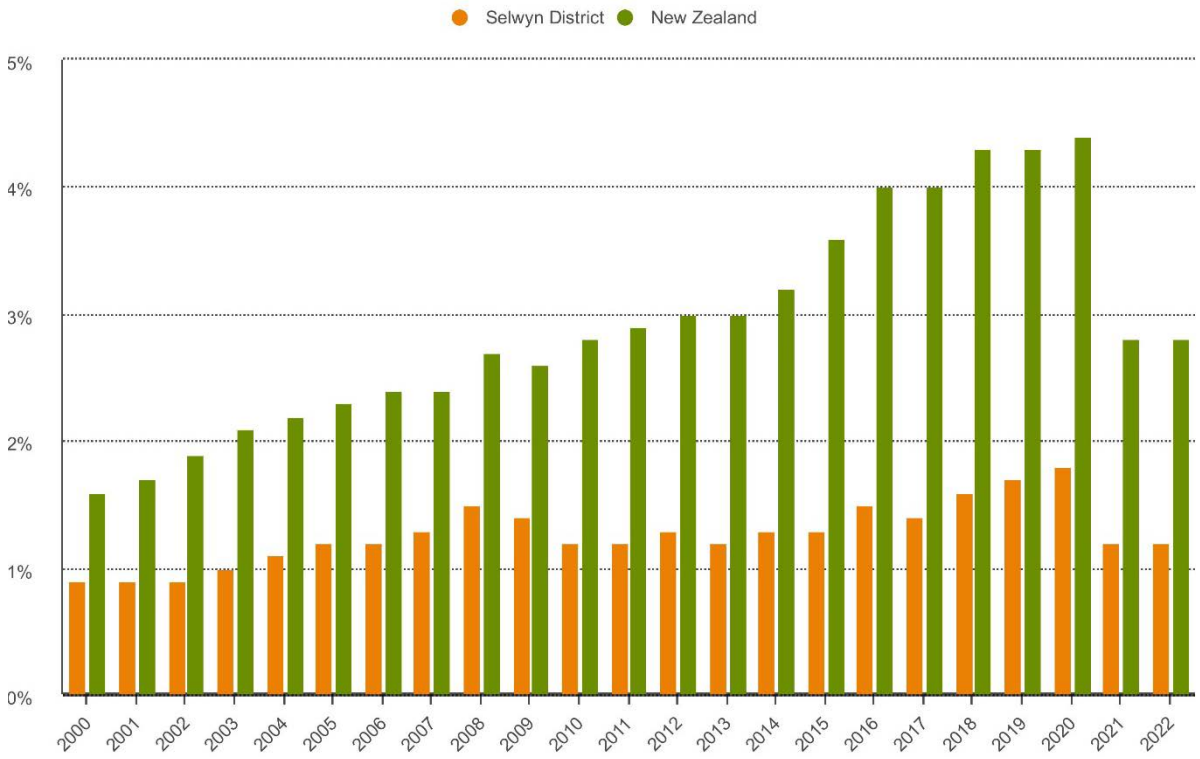
Tourism has typically played an important role in national and regional economy such as generating export revenue and creating employment opportunities. The visitor and tourism industry is a cross-cutting sector defined by the consumer, rather than the good or service that is consumed. It encompasses aspects of the activities, entertainment, accommodation, hospitality, transport, and retail sectors, among others. Most other sectors are defined by the product that is manufactured and sold. For the tourism industry however, what matters is *who* is buying the good or service.[23]

[22] Ministry of Business, Innovation and Employment (2016) What we know (and don't know) about economic growth in New Zealand. www.mbie.govt.nz/dmsdocument/4028-what-we-know-and-dont-know-about-economic-growth-in-new-zealand

[23] Ministry of Business, Innovation and Employment (2021) Initial Scope for the Tourism Industry Transformation Plan. www.mbie.govt.nz/assets/initial-scope-for-the-tourism-industry-transformation-plan.pdf

Selwyn has a robust visitor and tourism offering that is spread throughout the district and relies heavily on natural capital. The Selwyn District in terms of tourism is not perceived wholly as one tourist destination, but rather as a district that hosts a number of tourist attractions and is part of a wider national and regional tourism network. Proximity to Christchurch International Airport means that the Selwyn tourism industry is positioned well to leverage opportunities from both domestic and international visitors. The visitor and tourism industry presents challenges as well as many opportunities for local government. Visitors and tourists use a range of local infrastructure, facilities and amenities provided by local government.[24] Visitors and tourists contribute to the demand for council services, consume existing, and/or generate demand for greater capacity of local infrastructure and facilities bringing forward renewals or timing of upgrades.

The tourism industry has not been a significant industry in the Selwyn economy. The graph below from Infometrics shows the tourism industry's share of total GDP between 2000-2022 for the Selwyn District as compared to New Zealand.[25] In 2022 the tourism industry's share of Selwyn's total GDP was 1.2%, below the national average of 2.8%. In 2020 the tourism industry's share of Selwyn's total GDP peaked at 1.8%, which was well below the national average of 4.4%.



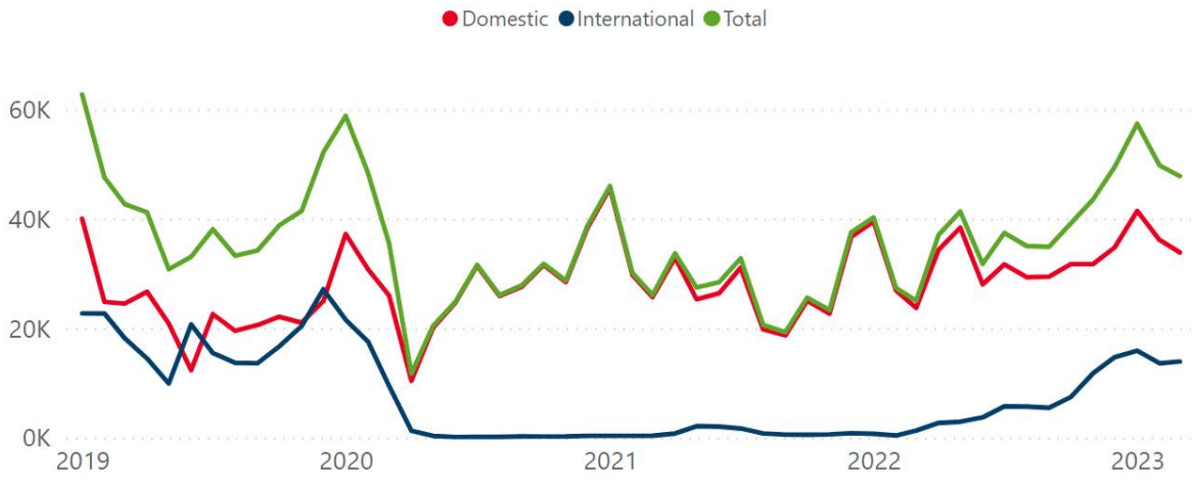
This data considers the Selwyn District as a whole, however when a place-based approach is taken there are certain areas of the district where tourism plays a significantly greater role. Several small

[24] Te Kōmihana Whai Hua o Aotearoa | Productivity Commission (2019) Local government funding and financing. https://www.productivity.govt.nz/assets/Documents/a40d80048d/Final-report_Local-government-funding-and-financing.pdf

[25] Infometrics. Regional Economic Profile: Selwyn District. Tourism GDP. https://ecoprofile.infometrics.co.nz/Selwyn%2bDistrict/Tourism/TourismGdp

settlements, such as Arthurs Pass, Rakaia, Castle Hill, and Lake Coleridge are popular places for holiday homes and recreational facilities. Arthurs Pass, Darfield, and Springfield, in particular, support summer and winter-sports by providing access to the Craigieburn Basin, Arthurs Pass National Park, Lake Coleridge, the Rakaia Basin and Mt Hutt.

The graph below from the ChristchurchNZ Visitor Trends Dashboard shows the average daily visitors to wider Canterbury (Christchurch Regional Tourism Organisation, Ashburton, Selwyn, Waimakariri and Hurunui Regional Tourism Organisation).[26]



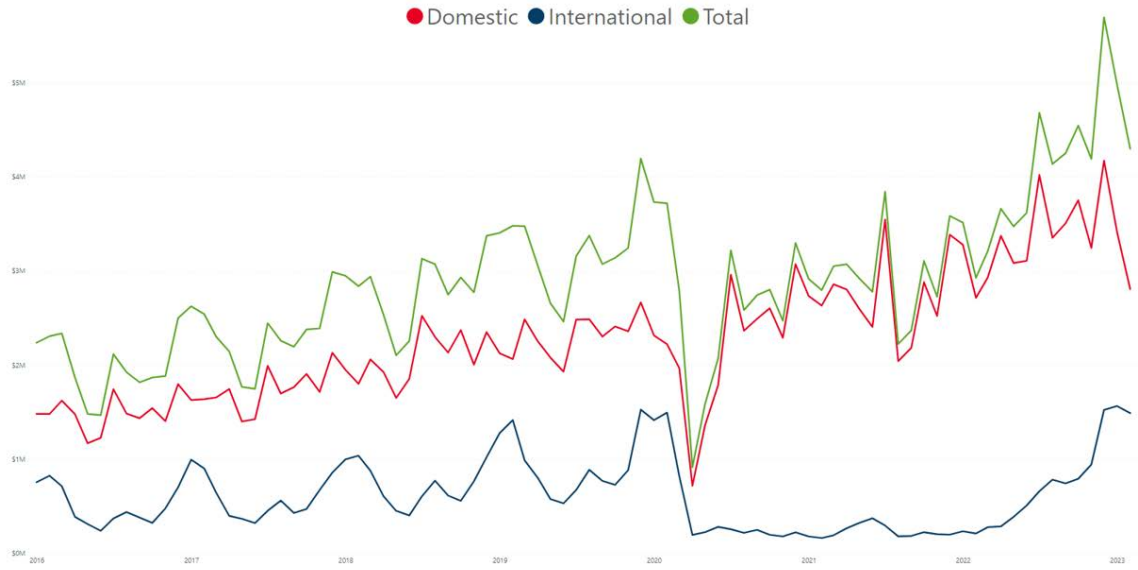
Most domestic and international tourists travel throughout New Zealand in January and February.[27] Total visitor numbers for January and February 2023 for wider Canterbury were close to pre-pandemic levels when compared to total visitor numbers recorded in January and February 2019. In 2023 international visitors comprised a smaller portion of total visitor numbers and have not returned to pre-pandemic levels.

Visitor spending has shown significant improvement on pre-pandemic levels and throughout the COVID-19 pandemic, visitor spending has been proven to have rebounded quickly in response to restrictions and public health containment measures. As with the national experience, Selwyn experienced a sharp downturn in international visitor spending in early 2020 with a slow and sustained recovery from 2021 onwards. Conversely, domestic visitor spending has been more variable, however there is a strong trend of increasing domestic visitor spending in the District. The graph below from the ChristchurchNZ Visitor Trends Dashboard shows visitor spending based on data from Marketview uses electronic card transaction (ECT) data to track visitor spending via the Paymark network. Visitor spending is not a proxy for total tourism spending, but it is a useful indicator. Spending is allocated

[26] ChristchurchNZ Visitor Trends Dashboard. https://www.christchurchnz.com/about-us/economic-insights/christchurchnz-tourism-research

[27] Te Kōmihana Whai Hua o Aotearoa | Productivity Commission (2019) Local government funding and financing. https://www.productivity.govt.nz/assets/Documents/a40d80048d/Final-report_Local-government-funding-and-financing.pdf

based on origin; therefore, visitor spending is spending by those that originate outside the Selwyn District.



Tourism is a dynamic and multifaceted industry that faces uncertainty, changing global trends and shocks. Nationally, there is considerable uncertainty about when, if ever, international tourism will recover to pre-pandemic levels. Tourism forecasts which provided expectations on the future tourism demand made by Ministry of Business, Innovation and Employment has ceased since the pandemic due to challenge of forecasting with such uncertainty and lack of data.

5. About the Selwyn District

District Overview

The Selwyn District stretches from the mountains, Kā Tiriti o Te Moana |the Southern Alps in the west, to Tamatea Pōkai Whenua | the Port Hills, and the sea (Pacific Ocean) to the east. The District is bounded by two large, braided rivers, the Waimakariri River to the north and Rakaia River to the south. The multiple, shifting channels of these rivers across the braid plain are iconic features of the Selwyn District. Other rivers in the Selwyn District have their origins in the foothills on the western edge of Ngā Pākihi Whakatekateka o Waitaha | the Canterbury Plains. The Waikirikiri/Selwyn River is a hill-fed braided river fed by its North and South branches. The Waikirikiri/Selwyn River joins with three major tributaries, the Hororata, Hawkins and Waianiwaniwa Rivers before flowing into Te Waihora. Freshwater is a taonga, essential for life and the health of freshwater is vital for the socio-economic, physical, environmental, and cultural wellbeing.

The land area of the Selwyn District is roughly 6,400km^2, and is comprised of coastal beach, alluvial plains (Ngā Pākihi Whakatekateka o Waitaha | the Canterbury Plains), and river terraces, rolling hill country, steep high country, and alpine areas. The physical characteristics of the natural environment of the Selwyn District are highly varied and are some of the most diverse in the country.

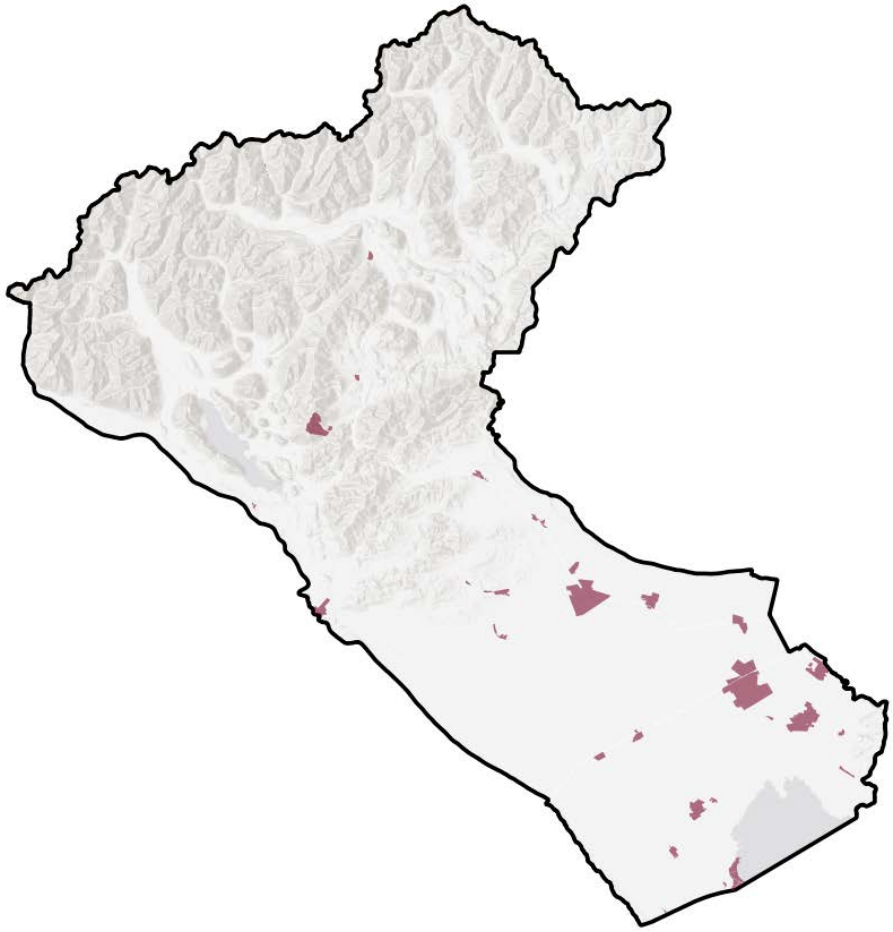
The Selwyn District has been inhabited by Ngāi Tahu whānui and their predecessors for settlement, resource gathering and exercising of cultural practices for over 1200 years. Te Taumutu Rūnanga and Te Ngāi Tūāhuriri Rūnanga have the predominant takiwā interests within the Selwyn District. The takiwā of Te Taumutu Rūnanga centres on Taumutu and the waters of Te Waihora and adjoining lands, including Kaitōrete and shares a common interest with Te Ngāi Tūāhuriri Rūnanga and Te Rūnanga o Arowhenua in the area south to Hakatere and inland to Kā Tiriti o Te Moana | the Southern Alps. The takiwā of Te Ngāi Tūāhuriri Rūnanga centres on Tuahiwi and extends from the Hurunui to Hakatere, sharing an interest with Arowhenua Rūnanga northwards to Rakaia and with Taumutu Rūnanga inland to the Main Divide.

Urban Selwyn

The population of the Selwyn District is distributed across a wide range of townships, peri-urban areas, discrete pockets of development and an expansive rural area. The easternmost portion of the Selwyn District is within the Greater Christchurch metropolitan area (see map below). Greater Christchurch is a strategic regional centre and principal economic, service and logistics hub for Te Waipounamu | the South Island. With population over 500,000, Greater Christchurch represents around 80% of the population of Waitaha | Canterbury. If Greater Christchurch continues to grow at the rate of the previous fifteen years, then the Greater Christchurch could have a population of 700,000 within the next twenty-five years and achieve a population of one million people within the next sixty years.

Greater Christchurch is a tier 1 urban environment and as such Selwyn District Council is recognised as a tier 1 local authority. This means that Selwyn District Council is subject to specific requirements under the resource management system.

The urban population of the Selwyn District is heavily concentrated within the within Greater Christchurch area of the district. Rolleston alone represents over 35% of the district's total population. This is not to say that urban Selwyn is contained solely within the Greater Christchurch area of the district. There are a large number of settlements and townships throughout the Selwyn District, which stretch from shores of Te Waihora to alpine areas such as Kura Tāwhiti | Castle Hill. The urban areas of the Selwyn District are shown on the map below.



Much of the urban growth of the Selwyn District has been from outward urban expansion onto greenfield land. This has been through various processes, including Council-led plan changes, private plan changes, the Housing Accords and Special Housing Areas 2013, and most recently the COVID-19 Recovery (Fast-track Consenting) Act 2020. Restrictive covenants have also been used by the development sector to restrict intensification by not allowing additional dwellings or further subdivision as well as a requirement for homes of at least a minimum size encouraging the development of larger homes. Covenants restrict certain uses of land in the future and can restrict the supply of land for housing. Covenants can also prohibit efficient and innovative building techniques, sustainable or innovative building materials, visible micro-renewable energy generation and other features, colours, design, landscaping, fencing and other matters. Restrictive covenants feature prominently in new subdivision areas, and due to the recent greenfield expansion of the are disproportionately commonplace in the Selwyn District. The Greater Christchurch Housing

Development Capacity Assessment March 2023 identified a shortfall in residential capacity in the long-term.[28] In response to the identified shortfall in Selwyn, the Greater Christchurch Spatial Plan will explore options for improving the feasibility of intensification in existing urban areas and increasing minimum densities in new urban areas.

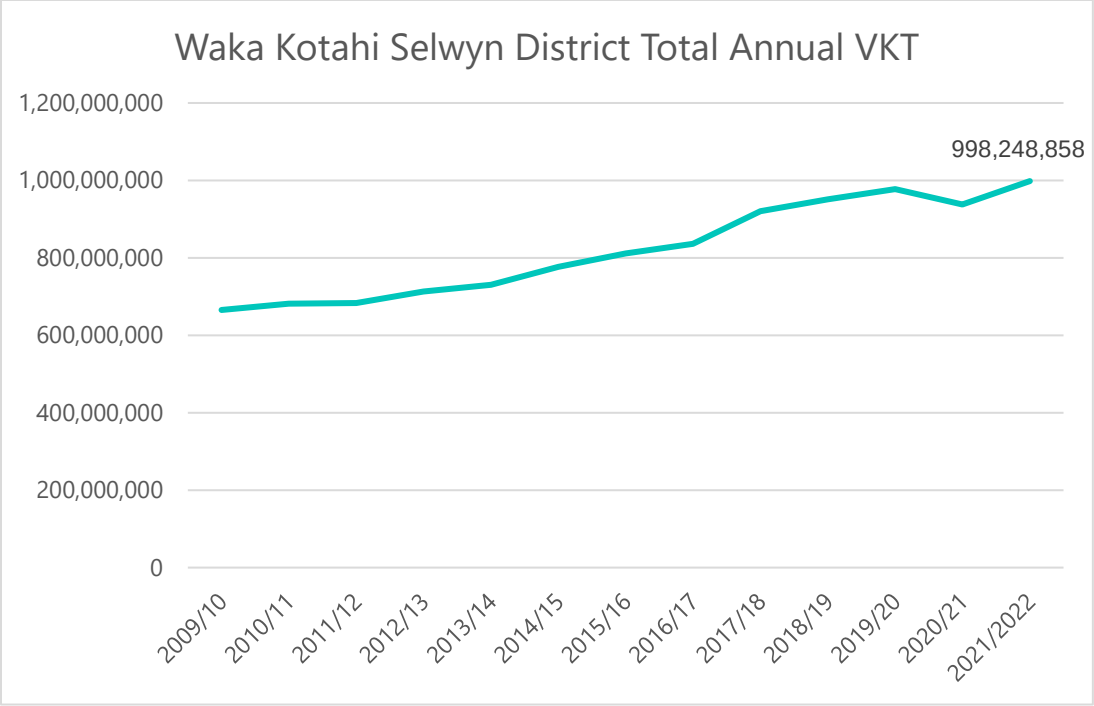
Transport

The transport system supports mobility, prosperity and overall wellbeing of communities. The transport system connects our communities, allowing people to travel safely and efficiently across our diverse landscapes, and enables the safe and efficient movement of freight. Transport is one of our largest sources of national greenhouse gas emissions. The latest national Greenhouse Gas Inventory, published in April 2023 contains data from 1990 to 2021, and found that emissions from road transport, a sub-category of the energy sector, made up 16% of national gross emissions in 2021. Stats NZ greenhouse gas emissions by region (industry and household): year ended 2021 found that for Canterbury 90.5% of household emissions were from transport.

In the Selwyn District, previous land use and transport investment decisions have encouraged high levels of private car use with consequentially low uptake of public transport. This has caused increasing traffic congestion, rising emissions, reduced amenity and has resulted in increased safety risks and poor health outcomes for local communities. Two-thirds of transport emissions come from the light vehicle fleet. Reducing reliance on fossil-fuelled vehicles is at the heart of the transport emissions challenge. In recent years there has been a greater effort to reduce reliance on cars and support people to walk, cycle and use public transport.

Vehicle-kilometres travelled (VKT) is a measure of the total annual vehicle kilometres travelled in an area and indicator of vehicle usage. The Government has set a target to reduce total kilometres travelled by the light fleet by 20% by 2035. Achieving this target would mean that national light vehicle VKT in 2035 should be about the same as it was in 2019, in spite of expected changes in population and economic growth. A National VKT Reduction Plan will and sub-national VKT reduction targets for Tier 1 urban areas will be released later in 2023. Territorial authorities use the Road Assessment and Maintenance Management (RAMM) database for estimating annual VKT. Estimating annual VKT using RAMM requires a number of assumptions and is often unable to produce VKT estimates by vehicle class (light and heavy). Waka Kotahi has produced estimates of VKT for the Selwyn District, using RAMM. The data is shown in the graph below.

[28] Greater Christchurch Partnership (2023) Greater Christchurch Housing Development Capacity Assessment March 2023. https://greaterchristchurch.org.nz/assets/Documents/greaterchristchurch-/HuiHui-Mai/Greater-Christchurch-Housing-Development-Capacity-Assessment-March-2023-v3.pdf



Between 2011/12 and 2021/22 VKT in the Selwyn District has increased by 46%. This is line with both national and regional trends of increasing VKT. VKT is strongly correlated with GDP growth and the number of people in full time employment. The projections produced by the SCGM indicate that VKT could continue to trend upwards without significant and sustained mode shift interventions and initiatives.

Sport and Active Recreation

Selwyn District Council recognises the benefits and importance of encouraging sport and active recreation participation. Selwyn District Council has a role in enabling access to appropriate spaces and places to enable participation in sport and active recreation to promote the health, wellbeing, prosperity and social cohesion in the district. Sport can be undertaken in an organised structure, for example, in a competition or tournament, or informally outside an organised structure. Active recreation is typically participation in non-competitive physical activity for wellbeing and enjoyment.[29]

The Sport New Zealand (2022) Changes in Participation – The New Zealand Participation Survey 2021 found that nationally, sport participation rates have increased slightly in adults (age 18 years and over) and decreased in young people (between ages 5-17) from 2017 to 2021. For Canterbury and West Coast there has been minimal change with no clear trend in sport participation rates for both adults and young people.

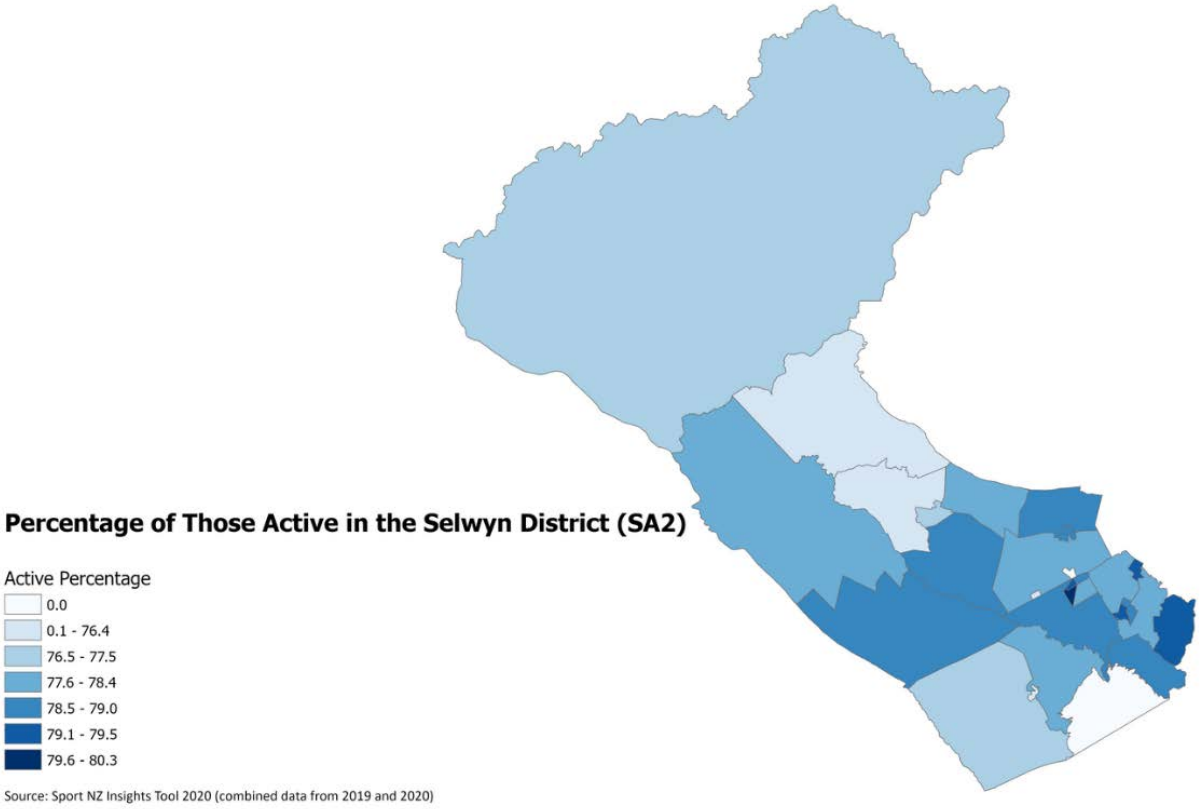
Canterbury and West Coast weekly participation over time							
Adults				Young People			
2017	2018	2019	2021	2017	2018	2019	2021
75%	74%	75%	73%	94%	98%	94%	93%

Data on participation for sport and active recreation for Canterbury and West Coast indicates that active recreation participation for adults is increasing relative to competitive sport. This reflects observed national trends that adult participation has become less formal and more individualised compared with young people who participate more in formal organised sport. For Canterbury and West Coast adults in 2021, the most popular activities were walking, running/jogging, gardening and cycling.[30] The top activities that young people in Canterbury and West Coast participated in the 7 days before the survey were running, jogging or cross country, playing, cycling, swimming, games, scootering and trampolining. The data indicates that both formal and informal active recreation is important for young people as well as organised sports.

The expected portion of the resident population that is active in the Selwyn District in 2018/19 based on Sport New Zealand's modelled participation is 78.5%, which is well above the modelled participation average of 72/73% nationally and Canterbury/West Coast average of 74/75%. The map below shows data from Sport New Zealand on the expected portion of the resident population that is active by SA2.

[29] Sport New Zealand 2022. Active NZ – Updating the participation landscape – The New Zealand Participation Survey 2021. https://sportnz.org.nz/media/5108/active-nz-updating-the-participation-landscape-2021.pdf

[30] Sport New Zealand 2022. Active NZ – Updating the participation landscape – The New Zealand Participation Survey 2021. https://sportnz.org.nz/media/5108/active-nz-updating-the-participation-landscape-2021.pdf



Mega Trends

Mega-trends are "large-scale social, economic, political, environmental or technological changes that are slow to form but which, once they have taken root, exercise a profound and lasting influence on many if not most human activities, processes and perceptions."[31] The consideration of mega-trends and potential implications on the Selwyn District is an exploratory strategic foresight method for considering a range of alternative future states, including possible, plausible, probable and preferable future states.[32] It is the relative stability of the trajectory of mega-trends that enable some degree of confidence when envisioning potential future states. The potential future state of the global, national, regional and local economy are inherently uncertain, however mega-trends and strategic foresight provide an indication of the potential futures.

- A changing population, the population of the Selwyn District is projected to experience sustained growth and is subject to the demographic forces at play at the national level, particularly a migration-driven 'bite' in the young adult age, increased longevity, and falling

[31] OECD (2016) OECD Science, Technology and Innovation Outlook 2016, OECD Publishing, Paris.
[32] Ministry of Business, Innovation and Employment (2022) New Zealand's areas of (economic) strength: a literature review. CEU Working Paper 22/01. www.mbie.govt.nz/dmsdocument/18921-new-zealands-areas-of-economic-strength-a-literature-review

birth rates; all of which contribute to an ageing population. The Selwyn District will need to account for growth in all age categories, including significant ageing-in-place.

- The Selwyn population is becoming more urbanised. Urbanisation is where an increasing share of the population living in urban areas. Urban population growth is the absolute growth in numbers of people living in urban areas. The Selwyn District has experienced both significant urbanisation and urban population growth over the preceding decades with this trend set to continue.
- The transition to a low-emissions and climate-resilient future will require transformational change across sectors such as transport, energy, industry, construction, waste, agriculture, and forestry. The transition will also require technological advances, new systems, and behavioural change. The transition will entail significant and urgent cuts to greenhouse gas emissions and an expansion of carbon sinks. It is essential that the transition is just, fair and inclusive.
- By the end of the Infrastructure Strategy the country will have passed the 2030 mark for achieving our first Nationally Determined Contribution under the Paris Agreement to reduce net greenhouse emissions to 50% below gross 2005 levels and will be well into the third Emissions Budget (2031–2035).
- The Selwyn District will continue to face the risk of natural hazards and climate related hazards. A warming planet will exacerbate existing hazards and will create new ones which places a considerable challenge on the adaptive capacity of both human and natural systems. The Auckland Anniversary weekend floods and Cyclone Gabrielle demonstrate the devastation and heavy toll of climate-related events that are set to become more common into the future.
- The future nature of work is a great uncertainty particularly with the influence of new technologies and subsequent impacts on labour and productivity. The ways in which people will work, how they will work, and where they will work will change dramatically over the long-term.
- Continued technological advancement has led to global hyperconnectivity and digital dependence. The diffusion of digital technology over the last twenty-years has transformed society and the nature of work.
- New technologies are set to drive future growth across industries, increase productivity, create new employment opportunities, provide better services, and improve wellbeing. New mobile technologies, the rise of the Internet of Things (IoT), artificial intelligence (AI), automation, augmentation technology, robotics, drones, autonomous vehicles, cloud computing, blockchain systems, nanotechnology, biotechnology, encryption, cyber-security, additive manufacturing (3D printing), big data, e-commerce, and other technologies will shape the future. Although new and emerging technologies offer considerable opportunities, there is considerable anxiety about the future of employment due to potential job destruction driven by technological change.
- The economic aftereffects of COVID-19 and the war in Ukraine have ushered in skyrocketing inflation and the rapid normalization of contractionary monetary policies contributing to a cost-of-living crisis. Stubborn inflationary pressures are set to remain for the national economy over the short-term.

6. Strategies, Policies and Plans

This section provides a brief overview of strategies policies and plans related to forward planning and growth at a regional, subregional and district level.

Regional

Canterbury Regional Policy Statement (2013)

The Canterbury Regional Policy Statement (CRPS) provides an overview of the resource management issues in the Canterbury Region. It also sets out objectives, policies, and methods to achieve integrated management of natural and physical resources. These methods include directions for provisions in district and regional plans. For territorial authorities, this direction is primarily regarding infrastructure, energy, waste, indigenous biodiversity, landscape, coast and natural hazards, the protection of outstanding natural features and landscapes, and the built environment, including the form and location of urban growth and provision for papakāinga housing.

Chapter 5 relates to land use and infrastructure across the region, requiring that development achieves consolidated, well designed, and sustainable growth in and around existing urban areas, provides sufficient housing choice to meet the region's housing needs, and facilitates the establishment of papakāinga and marae.

Chapter 6 relates to the recovery and rebuilding of Greater Christchurch, requiring urban development to avoid urban development outside of existing urban areas or greenfield priority areas for development, maintain the character and amenity of rural areas and settlements. It also requires development to not adversely affect public spaces and the efficient operation of strategic infrastructure and freight hubs and manage the impacts of rural residential development. Chapter 6 requires urban development to achieve sustainable outcomes through quality living environments and by retaining areas of special amenity and cultural value. Business and residential development and the establishment of public spaces is to give effect to the principles of good urban design, including by promoting the sense of place and belonging through historic heritage (Policy 6.3.2(1)). Any land reserve or set aside from development to protect or enhance heritage is to be provided for on outline development plans (Policies 6.3.3(2)(g) and 6.3.3(5)).

Canterbury Air Regional Plan (2017)

This sets out how Environment Canterbury manages air pollution from home heating, industry and other sources like outdoor burning, dust and odour. The plan contains central and specific policies which guide decision-making on resource consent applications, and provide the rationale for the rules and the status which is given to activities.

Canterbury Land and Water Regional Plan (2018)

The plan aims to provide clear direction on how land and water are to be managed in Canterbury, identifying resource management outcomes or to achieve the purpose of the Resource Management

Act 1991. It identifies policies and rules and provides direction for the processing of resource consent applications.

Waimakariri River Regional Plan (2017)

This plan promotes the sustainable and integrated management of Waimakariri catchment's rivers, lakes, hydraulically-connected groundwater and river and lake beds. This covers water use, discharges, land uses and activities in the beds and sets out issues and the objectives, policies, and methods for resolving the resource management issues.

Regional Coastal Environment Plan for the Canterbury Region (2005)

This aims to promote the sustainable management of the natural and physical resources of the Canterbury coastal environment. This covers protection and enhancement of the coast, water quality, coastal hazards and controls on activities and structures. The plan sets out objectives, policies, and methods including rules to resolve these issues and to improve the coastal environment.

Canterbury Regional Policy Statement and Regional Planning Framework Review

Environment Canterbury are reviewing the regional planning framework and developing an integrated regional planning framework. A new Regional Policy Statement alongside targeted changes to the Land and Water Regional Plan will be notified at the end of 2024. After 2024 Environment Canterbury will work to review and develop the rest of the regional planning framework with the aim to notify the integrated Regional Plan in 2028.

Canterbury Regional Land Transport Plan 2021-2031 (2021)

The Canterbury Regional Land Transport Plan (RLTP) guides land transport planning and investment within Canterbury. It sets out the current state of the transport network, priorities for investment, outcomes and objectives, and a 10-year programme to achieve this.

Canterbury Regional Pest Management Plan (2018)

Environment Canterbury manages the risks posed by pests and other organisms through its pest management plan. This plan provides regulatory requirements for priority pests and sets out how to prevent, reduce, or eliminate adverse effects to minimise unintended outcomes.

Canterbury Biodiversity Strategy (2008)

This strategy provides guidance for biodiversity management in Canterbury. It identifies priorities and actions for decision making, resource allocation, projects and initiatives and outlines action plans to achieve this. It is built around the concept of first protecting what remains, secondly restoring what has been lost.

Canterbury Water Management Strategy (2009)

Environment Canterbury has responsibility over water in Canterbury and this strategy is an initiative of the Canterbury Mayoral Forum as a leadership document. This sets out a collaborative framework to manage demands on water and respond to the challenges while improving the management. This combines considerations for current and contemplated projects and activities, integrating

infrastructure, environmental flows, water quality, land-use, water allocation, ecosystem protection and demand management.

Canterbury Mayoral Forum's Plan for Canterbury 2023-2025 (2023)

The Mayoral Forum's Plan 2023-2025 builds on the 2020-2022 Plan and includes all four aspects of wellbeing. The Plan summarises the interests and priorities of local government leaders. The Plan provides a basis for conversation and partnership with Ngāi Tahu, Government, and the business, community and volunteer sectors. The Plan focuses on three priority areas, sustainable environmental management, shared prosperity, and climate change mitigation and adaptation.

Canterbury Regional Economic Development Strategy (2017)

This strategy follows from the Canterbury Regional Economic Development Strategy 2015 which focused on growing the underlying economy for when the earthquake rebuild was substantially complete. The Canterbury Local Authorities' Triennial Agreement for 2017–19 re-affirmed the commitment to continue developing and implementing the Canterbury Regional Economic Development Strategy. This 2017 refresh realigns with a long term future where the rebuild is no longer providing impetus for growth, but where economic activity remains at a very high level. The seven priority work programmes under three clusters which were initiated in 2015 were reaffirmed.

Canterbury Regional Economic Development Strategy (2015)

Regional economic development was a priority in the Canterbury Local Authorities Triennial Agreement 2013-2016. The Canterbury Regional Economic Development Strategy enacts this and advocates the economic social development opportunities that Canterbury leaders can promote. This outlines an action plan for a long-term view of sustainable regional development that balances economic, social, cultural and environmental outcomes. There are seven priority work programmes under three clusters:

- Infrastructure, regulation and investment (integrated regional transport planning, digital connectivity, freshwater management and irrigation infrastructure)
- Human and social capital (education and training for a skilled workforce, newcomer and migrant settlement)
- Working with industry (value-added production, visitor strategy)

Canterbury Civil Defence Emergency Management Group Plan (2022)

This plan provides direction for how risk-based emergency management is implemented in Canterbury, working towards the vision of "A Resilient Canterbury – Waitaha tūkaha". This outlines how agencies reduce risk, get ready for, respond to, and recover from major emergencies and disasters. It outlines how hazards are likely to impact on the community and where to prioritise and allocate resources.

Mana Whenua

Te Taumutu Rūnanga and Selwyn District Council Relationship Agreement (2022)

The Relationship Agreement formalises the relationship between Te Taumutu Rūnanga and Selwyn District Council. It acknowledges the importance of an enduring and collaborative partnership based on mutual respect, good faith and working jointly to realise outcomes for the takiwā | district and its communities.

Mahaanui: Iwi Management Plan

The Mahaanui Iwi Management Plan provides a policy framework for the "protection and enhancement of Ngāi Tahu values, and for achieving outcomes that provide for the relationship of Ngāi Tahu with natural resources across Ngā Pākihi Whakatekateka o Waitaha and Te Pātaka o Rākaihautū". The Mahaanui Iwi Management Plan is a manawhenua planning document and expression of kaitiakitanga and rangatiratanga for six Papatipu Rūnanga.

Te Taumutu Rūnanga Natural Resource Management Plan (2003)

Te Taumutu Rūnanga, with the support of Te Rūnanga o Ngāi Tahu, developed a Natural Resource Management Plan in 2003. This management plan was designed to provide a framework for Te Taumutu Rūnanga to effectively apply tāngata whenua values and polices to natural resource management in the takiwā. This management plan was the basis of the Mahaanui Iwi Management Plan 2013, and while being replaced by this document, it has not been repealed and provides a useful source of information for understanding the values important to Te Taumutu Rūnanga.

Te Rūnanga o Ngāi Tahu He Rautaki Mō Te Huringa o Te Āhuarangi Climate Change Strategy (2018)

This strategy provides direction for Ngāi Tahu interests, assets and activities reflecting the broad impact of climate change. The purpose of this strategy is to create Ngāi Tahu responses to the risks and opportunities presented by climate change, referencing the entire tribal structure, so that iwi, hapū and whānau aspirations can be met in the face of climate change. Aligned to Ngāi Tahu 2025, a vision and strategic direction is established, followed by short/medium term actions to be achieved by 2025 and longer term actions to be achieved by 2050.

Te Mahere Whakahaere o Muriwai O Whata – Muriwai/ Coopers Lagoon Management Plan (2016)

This plan guides the management of the bed of Muriwai, as well as the wider catchment, in line with Ngāi Tahu values. This aims to restore resource-centred relationships between Ngāi Tahu, their culture and traditions, with the ancestral land and taonga of Muriwai through enabling the enhancement and gathering of healthy mahinga kai. The plan contains long-term objectives, policies and methods for management of Muriwai as the primary objective, as well as advocacy for the management of the wider catchment with landowners and agencies.

Te Waihora Joint Management Plan (2005)

This is a statutory joint management plan between Te Rūnanga o Ngāi Tahu and the Minister of Conservation, arising from the Ngāi Tahu Claims Settlement Act (1998). It was prepared to address the integrated management of the lakebed and lake margins, and the natural and historic resources within these areas. This plan aims to sustain Ngāi Tahu culture by restoring resource-centred relationships between Ngāi Tahu, their culture and traditions, with the ancestral lands and taonga of Te Waihora through enabling the gathering of healthy mahinga kai.

Ngāi Tahu Freshwater Policy (1999)

The policy sets out the priorities for freshwater use and resources within the rohe of Ngāi Tahu. It outlines the environmental outcomes sought by Ngāi Tahu and how Ngāi Tahu works with agencies to achieve these outcomes.

Greater Christchurch

Greater Christchurch Urban Development Strategy (2007)

The strategy was developed by the Greater Christchurch Partnership in consultation with the communities of Christchurch City and Selwyn and Waimakariri districts. It includes several strategic goals and actions to deliver on the vision for the Greater Christchurch area by 2041. The strategy aims to manage urban growth through consolidated settlement patterns and integrated land use and infrastructure planning.

Greater Christchurch Transport Statement (2012)

The Greater Christchurch Transport Statement provides an overarching framework to enable a consistent, integrated approach to planning, prioritising, implementing and managing the transport network and services in the Greater Christchurch area. The statement is designed to help guide the development and management of Greater Christchurch transport programmes and partners' investment strategies towards a strong and resilient future.

Land Use Recovery Plan (2013)

Following the Canterbury Earthquakes, the Land Use Recovery Plan guides the recovery and rebuild of Greater Christchurch through to 2028. The plan provided important statutory directions that guided the recovery and rebuild of the Greater Christchurch sub-region. The plan was prepared under the Canterbury Earthquake Recovery Act 2011.

Urban Development Strategy Update (2016)

This document updates the 2007 strategy to respond to the events and changes since its release, complementing, not replacing the strategy. The 2007 vision was retained, and the principles and strategic goals were revised. The Update identifies priority actions for partnership collaboration which addressed recent challenges and opportunities. Resilience has a greater focus, and this was developed concurrently with the Resilient Greater Christchurch Plan.

Resilient Greater Christchurch Plan (2016)

The Resilient Greater Christchurch Plan was developed on the basis of a Preliminary Resilience Assessment undertaking in 2014/15. The Preliminary Resilience Assessment identifies resilience challenges and opportunities on which to concentrate the Resilient Greater Christchurch Plan. The Resilient Greater Christchurch Plan sets four goals -Connect, Participate, Prosper and Understand to structure activities towards extending the resilience of Greater Christchurch.

Our Space (2019)

Our Space 2018-2048: Greater Christchurch Settlement Pattern Update is a future development strategy which responds to the National Policy Statement on Urban Development Capacity (2016), which was replaced in 2020. Our Space outlines land use and development proposals to ensure there is sufficient development capacity for housing and business growth across Greater Christchurch to 2048.

Regional Mode Shift Plan: Greater Christchurch (2020)

This plan guides the transport components of the Greater Christchurch Partnership, contributing to achieving its vision. Integrated with Greater Christchurch 2020 this plan facilitates transport and land use decision making to overcome the challenges created by past decisions. This promotes active and public transport outcomes, enabling mode shift and informing land use and development decisions. This plan aligns with *Keeping cities moving*, the national mode shift plan of Waka Kotahi and follows its overarching principles.

Greater Christchurch 2050

Greater Christchurch 2050 was established in June 2020 to set a vision and plan for Greater Christchurch to achieve intergenerational wellbeing that also responds to climate change, and moving towards a zero-carbon economy. Greater Christchurch 2050 established a strategic framework articulating the collective aspirations of Greater Christchurch for intergenerational wellbeing and guiding Partner agencies' decisions, strategy and policy development, and investments. Greater Christchurch 2050 also includes a plan with a set of transformational moves (investments, policy, and actions) within a clear roadmap to deliver transformational impact and provide confidence in the Greater Christchurch Partners' commitment to delivering on the aspirations and policy direction set out in the strategic framework. Greater Christchurch 2050 has guided the development of the Greater Christchurch Spatial Plan.

Greater Christchurch Spatial Plan

The draft spatial plan proposes how Greater Christchurch can cater for future projected population and business growth as well as future-proof our urban areas over the next thirty years. The draft spatial plan is a high-level strategic document that gives effect to national policy direction and responds to the priorities of mana whenua and the aspirations of the community. The draft spatial plan will satisfy the requirement to produce a future development strategy, outlined in the National Policy Statement on Urban Development 2020. The draft spatial plan seeks to create a sustainable and well-functioning urban environment through decarbonising the transport system, increasing resilience to natural

hazards and the effects of climate change, accelerating the provision of quality, affordable housing, and improving access to employment, education and services. The draft spatial plan builds on the extensive work already done to consider the future of Greater Christchurch including the Greater Christchurch Urban Development Strategy and Our Space 2018-2048 Greater Christchurch Settlement Pattern Update.

Greater Christchurch Transport Plan and Investment Programme

This Plan will provide a single unified plan for transport in the Greater Christchurch sub-region. The Plan will align with national policy direction and Greater Christchurch Partnership objectives. This Plan will provide a consistent policy framework for transport investment that aligns with central government and Greater Christchurch Partnership objectives and provides the ability to set out the transport policies and investments that are needed to give effect to the Greater Christchurch Spatial Plan. The Investment Programme will provide a consistent and integrated investment and action programme for the short term, medium term and longer term that demonstrates how transport investments and interventions in Greater Christchurch deliver on central government and Greater Christchurch Partnership objectives, including the implementation of the Public Transport Future investment programme.

Greater Christchurch Mass Rapid Transit Indicative Business Case

The Indicative Business Case aims to identify whether a future investment in Mass Rapid Transit in Greater Christchurch is justified, and its most suitable route into the city. If the Indicative Business Case is approved and funding is confirmed for the next phase of the business case process, the next step will be to investigate in more detail the design of the corridor and stations along the route.

Greater Christchurch Social and Affordable Housing Action Plan (2020)

The proposed Action Plan would address housing need in Greater Christchurch through accelerating affordable housing provision. The proposed Action Plan will ensure the entire housing continuum is working effectively to provide affordable housing choice and diversity.

Selwyn District

Selwyn 2031 (2014)

Selwyn 2031 is Selwyn's District Development Strategy, providing a framework for sustainable growth. This responds to issues such as population growth, housing demand, spatial planning, infrastructure needs and earthquake recovery. It established the township network and commercial centre framework informing Area Plans, Structure Plans and the District Plan review.

Ellesmere and Malvern Area Plans

Two Area Plans were developed following Selwyn 2031 for the Malvern and Ellesmere Wards outside of the Greater Christchurch area. These provide direction to guide the growth and the sustainable management of townships. This ensures there is sufficient land to accommodate development demand and zone additional land to support population growth.

Rural Residential Strategy (2014)

The Rural Residential Strategy sets out the preliminary locations and requirements for managing rural residential activities within the Greater Christchurch area of the District. The Rural Residential Strategy was developed following gazettal of the Land Use Recovery Plan and changes to the Canterbury Regional Policy Statement. The Rural Residential Strategy utilised strategic planning, servicing, and constraints analysis to identify suitable rural residential areas for development.

Township Structure Plans

Three township structure plans within the Greater Christchurch area have been completed for Rolleston (2009), Lincoln (2008), and Prebbleton (2010). These provide a local framework to achieve the Canterbury Regional Policy Statement (CRPS) and Greater Christchurch Urban Development Strategy (UDS).

Rolleston Town Centre Masterplan (2013)

The Rolleston Town Centre Master Plan is a 20-year vision that sets the direction for the future of the town centre. The Rolleston Town Centre Master Plan provides a vision, strategic direction, and key projects to facilitate the transformation of the town centre over time.

Lincoln Town Centre Plan (2016)

The plan specifies a framework for future development opportunities in the Lincoln Town Centre. Initially based off the outcomes of the Lincoln Opportunity Study the plan outlines opportunities to co-ordinate development over time, guiding outcomes. This includes a vision, draft plan and a work programme with key projects and indicative timeframes.

Newcomers and Migrants Strategy (2015)

This strategy sets the direction and aims to address the needs of people new to the district so that they can settle well and call Selwyn their home. As a rapidly growing district, with increasing diversity this strategy is crucial in addressing the challenges newcomers face integrating. This includes a vision statement, a mission statement, values and an implementation plan for action.

Selwyn Walking and Cycling Strategy (2018)

This strategy sets out a vision and goal to make Selwyn a pedestrian and cycle friendly district. Direction is provided to stakeholders and agencies to encourage and coordinate efforts and guides Council's approach to provision of infrastructure and initiatives. A separate action plan identifies funding required, priorities and inclusions in the Long-Term Plan and Annual Plans.

Open Spaces Strategy (2015)

This strategy sets the direction for provision of an open space network to meet future needs. It establishes a vision supported by thirteen principles, taking into consideration existing provision and levels of service and other providers of open space in the District. It emphasises the role of open space as an integral part of the District's aesthetic, social, ecological, cultural and economic life.

Eastern Selwyn Community Spaces Plan (2016)

This plan provides direction for current and future community space provision in Eastern Selwyn. This enables Council to make appropriate community space contributions informed by trends and demand. A vision, objectives and recommendations are outlined to guide provision and investment of spaces. An implementation plan prioritises and outlines key actions to be undertaken to achieve the plans vision.

One Water Strategy

In March 2023, Council announced a review of its 2009 5 Waters Strategy to set the strategic direction for water management in the district. This is known as the One Water Strategy and guides 30-year water asset management, approach for the provision and management of water, wastewater, stormwater, water race and land drainage services. This is in partnership with mana whenua through an advisory group.

Future Selwyn Strategy

The Future Selwyn Strategy is a proposed long-term, future-focused strategy that will set out a vision for the Selwyn District, guided by strategic outcomes and directions. The Future Selwyn Strategy will influence the type and location of housing; the shape and feel of neighbourhoods; the efficiency and sustainability of transport options; the well-being of communities; the vitality of businesses and centres; the integrity of the natural environment; and the resilience of Selwyn's infrastructure. The Future Selwyn Strategy will provide a framework that will determine the preferred direction on growth, development and investment by the Council and generally shape Council's decision-making and how it operates. The strategic direction that arises from the Future Selwyn Strategy will be implemented through long-term plans and annual plans.

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8. Appendices

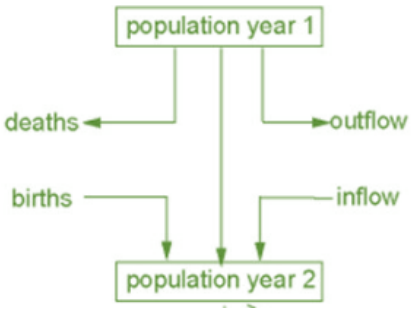
Appendix 1 – SCGM Methodology

Population Projections - Cohort Component Approach

All projections produced in this model use the cohort component method. The method is a simple account of the fundamental aspect of population change, which is driven by three factors: births (fertility), deaths (mortality), and migration. Specifically, the population in a given year is equal to the population in the previous year plus births, less deaths, and net migration.

This simple account of population is shown in the equation form below.

$Pop_y = Pop_{y-1} + B - D + NM$



P_y population at end of year

P^{y-1} population at start of year

B births during year

D deaths during year

NM net migration (arrivals – departures) during year.

For the projections, the base population is rolled forward by calculating the effect of recorded deaths and migration within each age-sex group (or cohort). New birth cohorts are based on recorded births.

This model uses the official Statistics New Zealand Estimated Residential Population as the base population. The assumptions for fertility, mortality and net migration are set for three scenarios, (low, medium, and high), using the official Statistics New Zealand assumptions from the 2018-based projections.

This means that the projections are consistent with the Statistics New Zealand projections, however they have been updated to a newer base year which provides a contemporary set of projections that reflect the growth that has eventuated since 2018.Based on our discussions with you we consider that there will be seven key steps, Based on our discussions with you we consider that there will be seven.

Household and Dwelling Projections

The projections provide estimates of household types and dwelling utilisation. The number of households is estimated by converting the population by age cohort group into households using living arrangement propensities from the Census and household formation rates. The resulting households are used to establish the number of dwellings, both occupied and unoccupied, again based on utilisation recorded in the Census.

This simple account of households and Dwellings is shown in the equation form below.

$$\text{Household}_{type} = \frac{\sum_{age} Pop_{age} \times LATRb_{age}}{Formation_{type}}$$

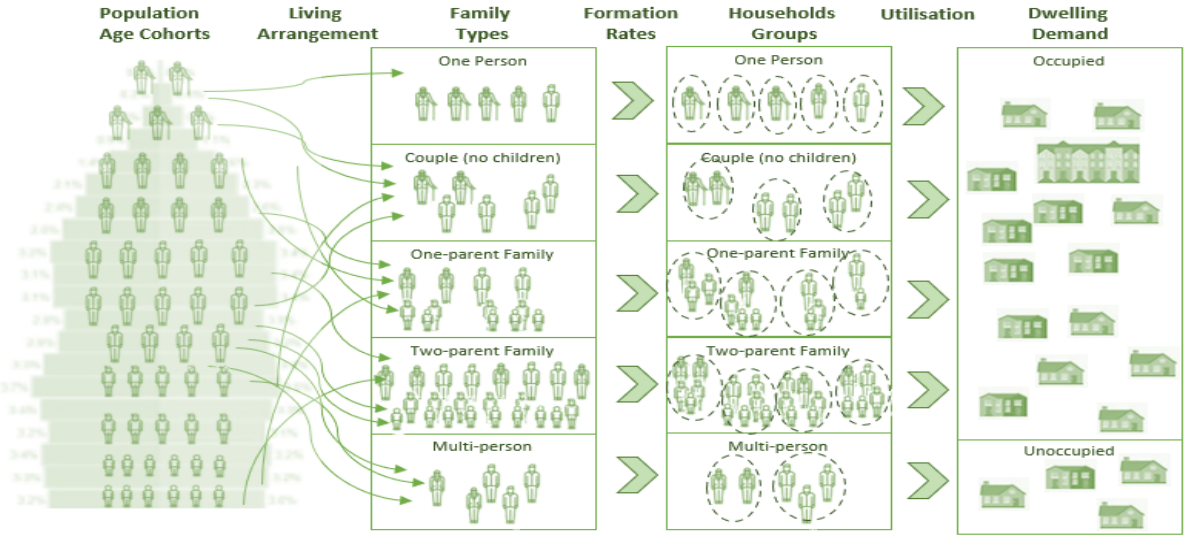
Pop_{age} population in each age cohort group.

$LATRb_{age}$ the propensity of each age cohort group to live in a family type.

$Formation_{type}$ the conversion factors between family members to household types

$$\text{Dwelling} = \text{Household}_{type} \times \text{Utilisation}_{use}$$

$Utilisation_{use}$ the rates of occupied and unoccupied dwellings.



This model uses the official Statistics New Zealand assumptions for living arrangement and formation rates, which are the basis of the 2018 based projections. This means that the projections are consistent with the official projections, however they have been updated to a newer base year which provides a contemporary set of projections that reflect the growth that has eventuated since 2018.

Glossary

Age Cohort	the population in five-year age groups (0–4, 5–9, … 80–84, 85+). These age cohort groups match with groups used in the NZ Census.
Dwelling	is a private dwelling that is either occupied by a household or unoccupied, which excludes dwellings under construction.
Estimated Resident Population	the demographic characteristics of the population. Statistics NZ produces estimates about how the population is changing after, or in between, each Census.
Fertility	is the average number of live births that a woman of a certain age would have during a period.
Family	is a grouping of related people, which includes one-parent with children, two-parents with children and couples without children.
Formation Rates	is the rate at which population in each family type form into a family and then into a household type.

Household	is one or more families or other household types occupying a dwelling. This includes families (parents with children or couples), one-person household and multi-person household.
Living Arrangement Types Rates	is the propensity of people in each age cohort group to live within each family type. These are set using Statistics NZ variant B which is the estimated living-arrangement type propensities based on 2001–2018 Census family coding data.
Mortality	is the probability that a person of a certain age dies during a period.
Net Migration	the difference between arrivals and departures, which includes both internal and external migrants.
Population Projection	an indication of the future demographic characteristics of the population, based on an assessment of past trends and assumptions about the future course of demographic behaviour (eg fertility, mortality, migration). The projections produced are not predictions or forecasts, and indicate future population and change if the stated assumptions apply over the projection period.
Scenarios	a range of alternative projections, which includes 'low', 'medium', and 'high'. Together these projections indicate a range of possible and plausible outcomes, but they do not encompass all possibilities. Statistics NZ considers the assumptions in the medium (mid-range) projection as suitable for assessing future population changes. However, customers are always advised to make their own judgement on which projections best suit their purposes.
Utilisation	is the type of dwelling use, which is either occupied or unoccupied. This is drawn from the Census, which provides an understanding of dwelling use.

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Economic Forecasts – Macro Economic Model

The employment projections used in this profile are produced from our proprietary Macroeconomic Forecast Model ("MFM"). The MFM provides future estimates of economic indicators such as GDP and employment by industry. The MFM applies a two-stage process, involving economic and statistical modelling in the first stage, with an Input-Output modelling in the second stage based on the ELM (Economic Linkages Model – a multi-regional Input-Output table developed by Formative).

For stage 1, real world historical data and industry insights are used to forecast the expected future demand for goods and services at both an economic sector and regional level. This includes demand from households, central and local government, exports (including tourism) and business investment in capital. Forecasts for each of these demand factors are developed using statistical modelling, and data from Statistics NZ, the Ministry of Business, Innovation and Employment and the Ministry for Primary Industries. Notably, we include other forecasts as available for specific market sectors, and for large exporters such as dairy, tourism and forestry. In addition, we also apply region-specific adjustments such as factoring in the development of an inland port in the region.

For stage 2, the demand forecasts are fed through the ELM, which is a multi-regional Input-Output model. The ELM records the interactions and relationships between actors in the economy, including businesses, households, government, exporters, and importers. At its essence, the interactions in the ELM describe how each sector responds to changes in the economy, and how those changes ripple out to influence a range of other outcomes. Using the forecast demand from stage 1 we can then measure the future economic activity that can be expected to occur within the economy because of changes in demand. The output of this process is a projection of how much economic activity (measured in both employment and GDP) will be required to meet future household, government, and export demands.

The MFM provides four scenarios - 'Formative medium', 'Formative high', 'Induced Demand', and 'Projected Building Activity'). These scenarios indicate a range of (but not all) possible and plausible outcomes. The scenarios mainly differ in terms of the amount of population growth that is projected to live within the District. The nature of the population growth in each scenario is defined Formative Inform Population Profile. We also model a range of possible outcomes for export demand and capital formation rates through the use of 'low', 'medium' and 'high' scenarios. The 'medium' scenarios are the point estimates (i.e the best forecast of future demand) of the statistical modelling, and the 'low' and 'high' are the lower and upper bounds of a corresponding 50% confidence interval. This confidence interval approach allows us to present a plausible range of values rather than a single estimate.

Floorspace and Land Projections

The floorspace and land projections have been estimated using a three-step process to assess the current locational preferences of the businesses in the economy and the observed density of economic activity within the business zones.

The first step is to assess the location of economic activity by zone. That assessment shows that a considerable share of the economy is not located in business zones. This non-business area employment is comprised primarily agricultural activity (in rural areas), and community-based activity (schools, health, cultural, etc) and home office enterprises in residential zones. These relationships are projected forward, with the assumption being that economic activity in each industry within non-business zones continues to locate, *pro rata*, according to existing preferences.

The second step is to assess the current workspace ratio in each zone, using measured floorspace and employment. The data shows that the average employee in the commercial zones uses 40m^2, with ratios that are higher for low-intensity commercial (e.g. Large Format Retail) and lower for high-intensity commercial (e.g. offices). The average employee in the industrial zones uses 166m^2, again higher for low-intensity activities (e.g. storage) and lower for high-intensity activities (e.g. manufacturing). The user can nominate a one of three Workspace Ratio scenarios (Low, Medium and High), with Medium being that which is currently observed. The profile projects the amount of floorspace that will be required to accommodate the growth in employment.

Work Space Ratio Scenario - m2 per employee	Low	Medium	High
Commercial	60.0	39.9	30.0
Industrial	180.0	166.3	120.0

The third step is to measure the floorspace and land on each site within the business zones, which provides an estimate of the current intensity of land use (i.e. Floor Area Ratio or FAR). The data shows that the average building in the commercial zones has a FAR of 0.45, with lower ratios for low-intensity commercial (e.g. Large Format Retail) and higher ratios for high-intensity commercial (e.g. offices). The average building in the industrial zones has a FAR of 0.47, again lower for low-intensity industrial (e.g. storage) and higher for high-intensity industrial (e.g. manufacturing). The user can select one of the following three FAR scenarios (Low, Medium and High), with the Medium being the currently observed FAR. The profile projects the amount of land that will be required to accommodate the growth in employment and associated floorspace.

Floor Area Ratio Scenario - floorspace to land	Low	Medium	High
Business 1	0.39	0.45	0.56
Business 2	0.39	0.47	0.56

Glossary

GDP	An economic snapshot of activity, which is used to estimate the size of an economy and growth rate. GDP can be calculated in three ways, using expenditures, production, or value added (incomes) and can be adjusted for inflation or not. In this model GDP is calculated using value added method and is shown in real terms for the 2022 years (i.e. adjusted for inflation).
Income	Includes salaries, wages and profits.
Employment	A count of all persons employed, including full-time, casual and contracting, and both employees and working proprietors.
Floor Area Ratio	The relationship between the total amount of floorspace that a building has and the total land area of the lot on which the building stands. The FAR of a one storey, 1,000m^2 building on a 2,000m^2 lot of land would be 0.5. A two-storey building on the same lot, where each floor was 500m^2, would have the same FAR.
Industry	Defined using the standard Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC06). The profile provides 19 level 1 industries.
Input Output	Input-Output models are macroeconomic models that represent the economic interdependencies between different industries in New Zealand.
Sector	There are 65 'sectors' which are defined as a grouping of ANZIC06 industries, based on cluster analysis of their supply chains and economic rationale.
Scenarios	Four projections ('Formative medium', 'Formative high', 'Induced Demand', and 'Projected Building Activity') that indicate a range of (but not all) possible and plausible outcomes. The scenarios mainly differ in terms of the amount of population growth that is projected to live within the District. The nature of the population growth in each scenario is defined Formative Inform Population Profile.
Workspace Ratio	Total floorspace occupied per person employed, calculated as total building floorspace divided by total employment in that building. The workspace ratio of a 1,000m^2 building in which 100 people are employed would be 10m^2 per job.

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Capacity Assessment – Plan Enabled, Infrastructure Ready, Reasonably Realised, Feasible

The capacity assessments used in this profile are produced from our proprietary Geospatial Property Model ("GPM"). The GPM provides estimates of the amount of additional dwelling and business floorspace that can be developed on each property within the urban areas of the district. The PSM applies a two-stage process, involving a first stage of GIS processing of properties to establish the nature of each property and a second stage that estimates the different types of capacity (as required in the National Policy Statement on Urban Development).

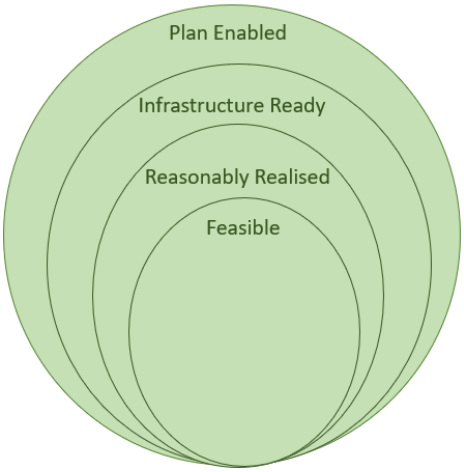
For stage 1, a geospatial analysis was conducted to draw together data for all the properties within the urban areas that could be used for residential and business activities. The geospatial analysis had the following steps:

- **Urban Land**: extract land that is currently zoned urban or expected to be zoned urban. A spatial join between LINZ primary parcels (which is a complete and unique record of all land) and the District Plan zones and any proposed new urban areas. The output from this step is a set of parcels that can be used for urban activities.
- **Developable Urban Land**: remove land that cannot be used for residential and business activities, which includes roads, waterways, openspace, reserves, walkways, rail lines, cemeteries, places of worship, special purpose activities (universities, schools, military, ports, airports, hospitals, etc). The output from this step is a set of parcels that are developable for residential and business activities.
- **Developable Urban Properties**: establish the nature of the activity that is currently located on each developable urban property. Spatially join data to each property, which includes building footprints, rateable property, building consents, and land use surveys. This step also included both desktop and field trip validation of the data sets, with a focus on new activity in known development areas – both business and residential. The output from this step is a set of properties that are developable for residential and business activities, along with existing activities.

The Developable Urban Properties are a critical element of the assessment as it forms the baseline from which the Capacity Assessment is conducted. Much of the processing conducted in the Capacity Assessment is focused on ensuring that information recorded for each of the Developable Urban Properties is accurate and contemporary.

For stage 2, the assessment calculates the different types of capacity as required under the NPSUD which includes Plan Enabled, Infrastructure Ready, Reasonably Realised, and Feasible. The following steps were used to estimate each of the capacity types:

- **Plan Enabled**: applies the District Plan rules to establish the maximum theoretical capacity that can be developed on each urban site, which includes height limits, setbacks, minimum lot size, etc.
- **Infrastructure Ready**: draws from Council's infrastructure information and planning to establish eh capacity that will be serviced.
- **Reasonably Realised**: draws from recent developments, both consents and 224c subdivisions to establish the development patterns that are being realised by the market.



- **Feasible**: is calculated using building cost, land values, and sales revenue information, along with industry average profit margins. The modelling was conducted for intensification, infill, and greenfield developments.

The output of the Capacity Assessment is a property-level estimate of the potential development that could be accommodated in the urban parts of the District. This includes capacity estimates for the short-medium term and long term, as required in the NPSUD.

A key benefit of the Inform Capacity Profile is that users can readily input changes and generate new up-to-date outputs. While the Capacity Assessment has been developed using the best available information, it is important to understand that aspects can and will change in the future. The Inform Capacity Profile allows for flexibility, either in terms of the ability to modify the planning rules in the "Assumption" tab or directly modify specific properties (e.g. change zone).

Capacity for Growth Model

The Capacity for Growth Model ("CFGM") compares the expected demand for dwellings and business floorspace with the supply within the urban parts of the district, to establish whether there is sufficient capacity to accommodate the expected growth. The demand is drawn from the Formative's Population and Economic profile, while the supply is drawn directly from the Capacity Assessment. The CFGM applies a two-stage process, involving a first stage that converts demand to types and locations within the urban areas and a second stage that assesses whether there is sufficient supply to accommodate the demand (as required in the NPSUD).

The first stage is to assess and convert the demand into key typologies and locations within the urban areas. In summary, this stage takes the demand from Formative's Population and Economic profile and converts it into typologies and locations, which can then be compared to the Capacity Assessment. The following steps were applied in the conversion:

- **Dwelling demand**: the total dwellings are converted into types of dwellings, standalone and attached using a set of assumptions – which have been set as baseline preferences observed in the census and can be varied to allow the user to test different scenarios. These dwellings are then allocated spatially to urban areas in the District based on the observed patterns in building consents, which can be varied to allow the user to test different scenarios.
- **Business demand**: the demand for business land is converted into types of land commercial, retail and industrial, using the observed preferences for each industry for different types of land. The demand is then allocated spatially to urban areas in the District according to either dwelling growth (retail and commercial) or according to available capacity (industrial).

The output of this step is detailed demand by typology and location, for both dwellings and business land.

The second stage is to assess the sufficiency of the supply to meet demands, which compares the demand from the first stage with the supply from the Capacity Assessment. The CFGM applies the Competitiveness Margin, as defined in the NPSUD, which provides a measure of the minimum amount of dwellings and business land that is required to be 'Sufficient' – i.e. expected demand plus the Competitiveness Margin.

Next, the CFGM assessment compares the capacity that is feasible for each typology to the number of dwellings or business land to expected demand plus the Competitiveness Margin. In any case where the demand plus the Competitiveness Margin is greater than the supply of feasible capacity the model notes that there is insufficient capacity. The key output of this assessment is to show when and where there may be a need for more supply of developable land within the urban areas.

Glossary

Competitiveness Margin	A margin, over and above the expected demand is required in the NPSUD to support choice and competitiveness in housing and business land markets. The short-medium term is defined as 20% above expected demand, while the long term is defined as 15% above expected demand.
Feasible	This means development that is commercially viable to a developer based on the relationship between costs and revenue. The short-medium term is defined as the current relationship (i.e. no inflation), while the long term is identified by applying an adjustment for expected changes in costs and revenue.

Geospatial data	combines location information (coordinates) and attribute information (the characteristics) for features, in this case, land and buildings.
GIS	A geographic information system (GIS) is a system that creates, manages, analyses, and maps all types of geospatial data. GIS can be used to establish patterns, relationships, and geographic context.
Infrastructure ready	The development activity that can be accommodated by infrastructure. The short-medium term is defined as existing or funded infrastructure, while the long term is identified in the Infrastructure strategy.
Long Term	Covers two decades after the Short-Medium-term.
Plan Enabled	The development activity that can in theory occur on a property. This means all activities that are permitted, controlled or restricted within the District Plan. The short-medium term is defined in the Operative or Proposed District Plan, while the long term is identified in the Future Development Strategy.
Property	A parcel of land, that can contain one or more premises or buildings. There is a one-to-one link between land and properties.
Reasonably Realised	The development activity that is generally achieved by the market, which is based on information from past development trends which show modifying densities and heights, as compared to the rules in the District Plan. The intensity of development achieved by the market tends to be lower than what can in theory be developed.
Short-Medium Term	Covers the coming decade, where the Short term is the coming three years and the Medium-term is the following seven years.
Sufficient	Occurs when there is at least enough capacity to meet the demand (plus the competitiveness margin) and for the short-medium and long terms. For housing, sufficiency includes of existing and new urban areas and standalone and attached dwellings. For business land sufficiency includes by business sector – commercial, retail and industrial.

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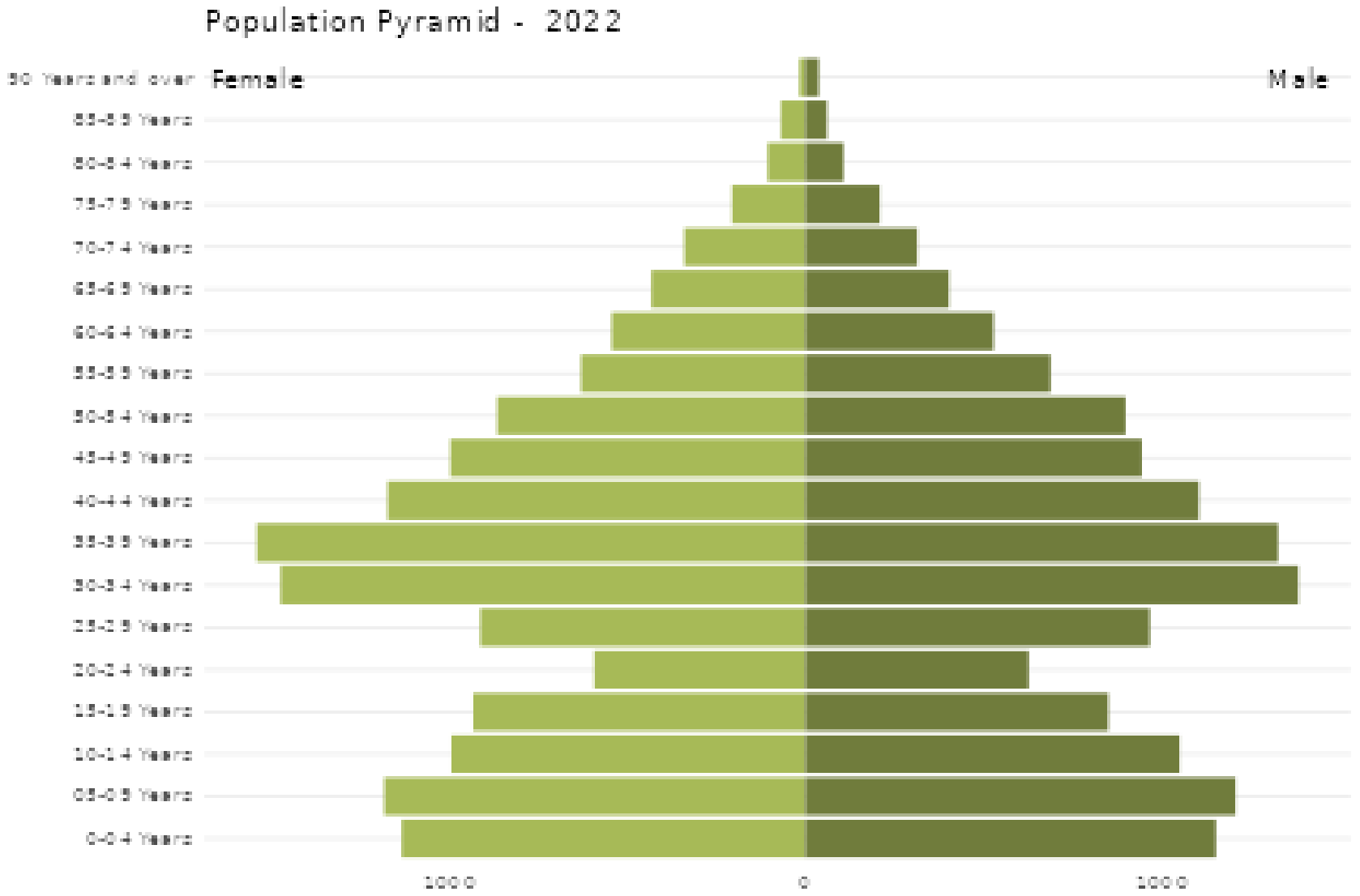
Appendix 2 – 2022 Population Pyramids for Townships

Rolleston


Population Pyramid - 2022
Female
Male
90 Years and over
85-89 Years
80-84 Years
75-79 Years
70-74 Years
65-69 Years
60-64 Years
55-59 Years
50-54 Years
45-49 Years
40-44 Years
35-39 Years
30-34 Years
25-29 Years
20-24 Years
15-19 Years
10-14 Years
05-09 Years
0-04 Years
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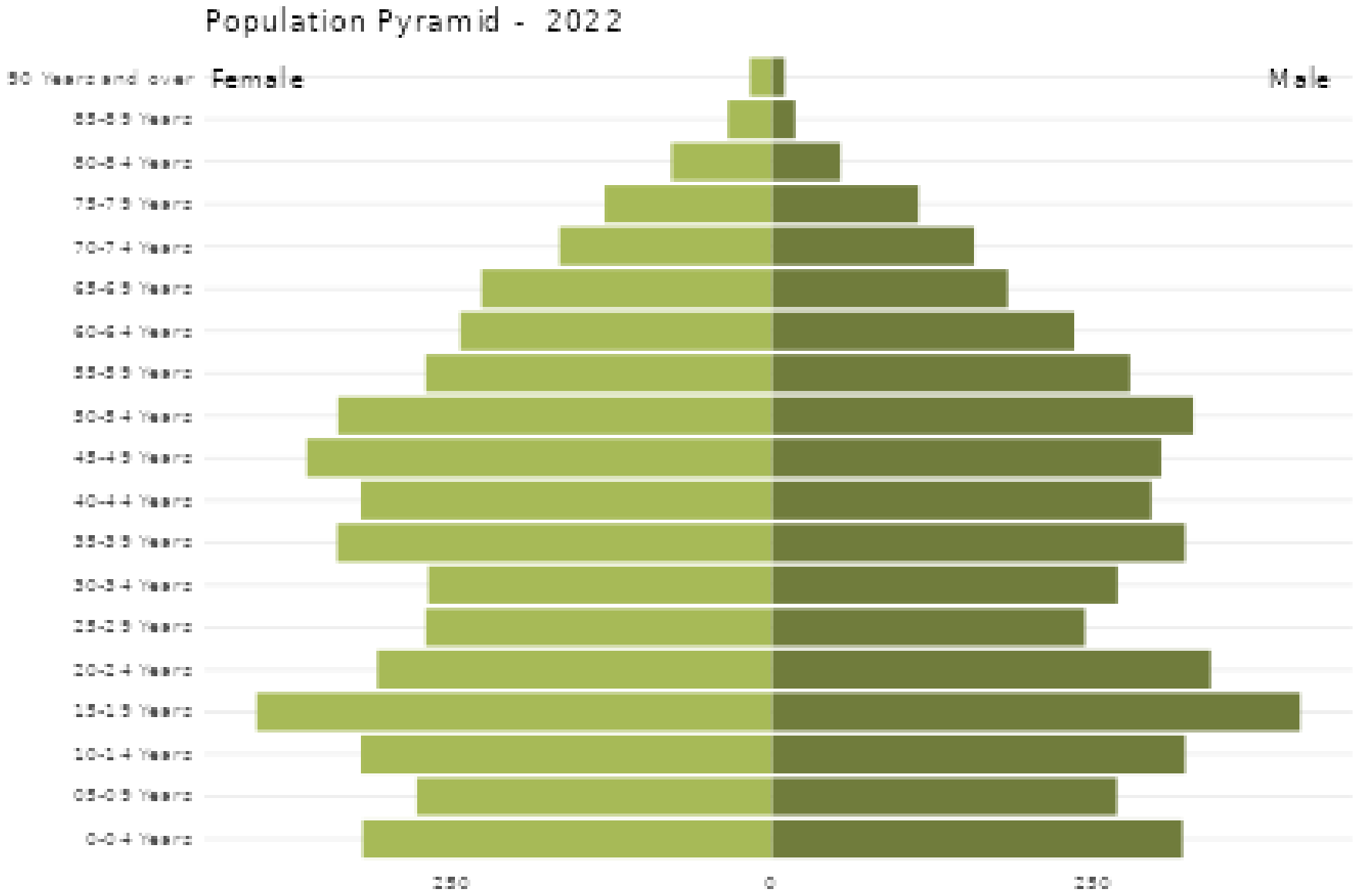
1000

Lincoln


Population Pyramid - 2022
Female
Male
90 Years and over
85-89 Years
80-84 Years
75-79 Years
70-74 Years
65-69 Years
60-64 Years
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50-54 Years
45-49 Years
40-44 Years
35-39 Years
30-34 Years
25-29 Years
20-24 Years
15-19 Years
10-14 Years
05-09 Years
0-04 Years
250
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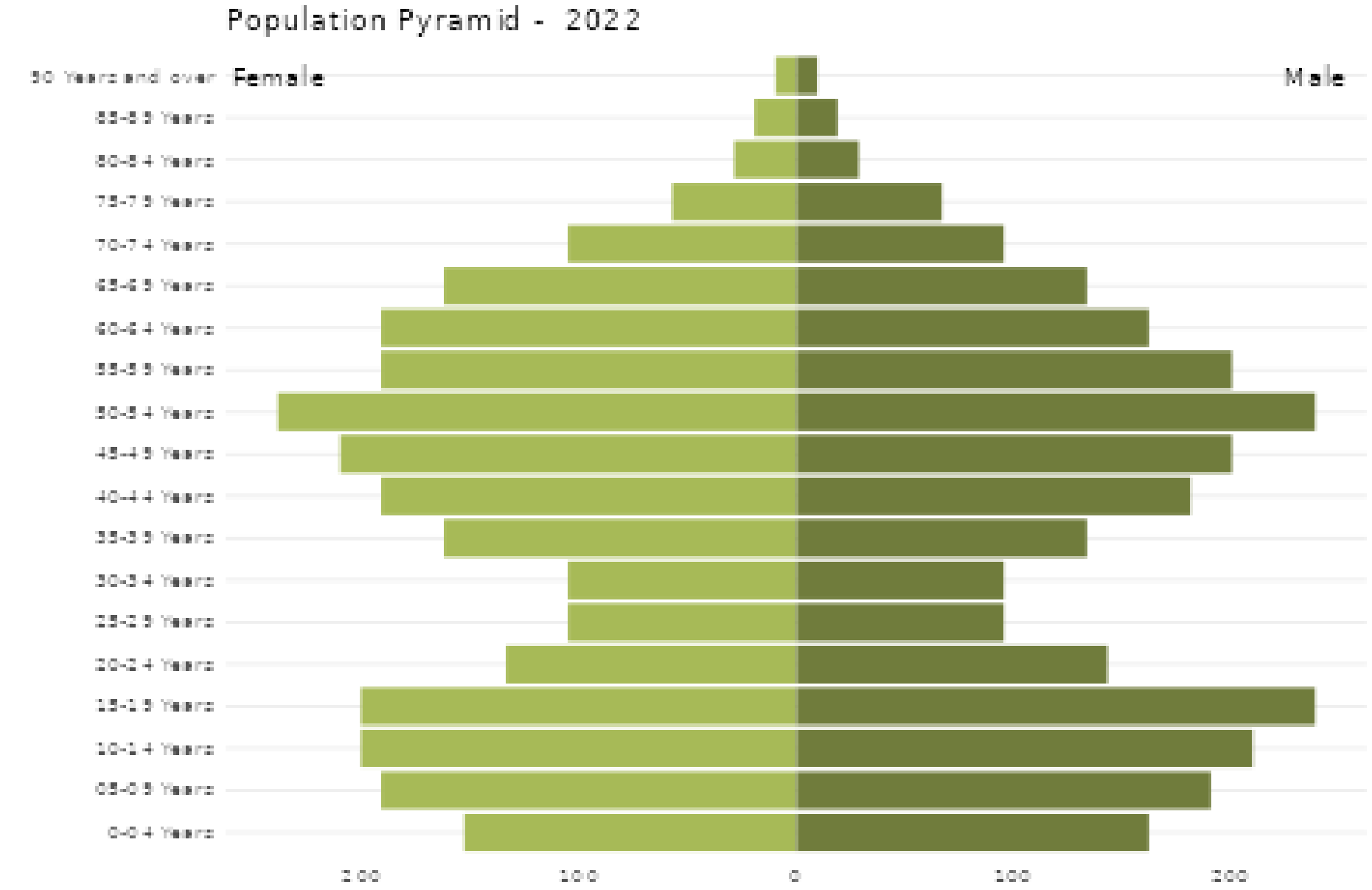
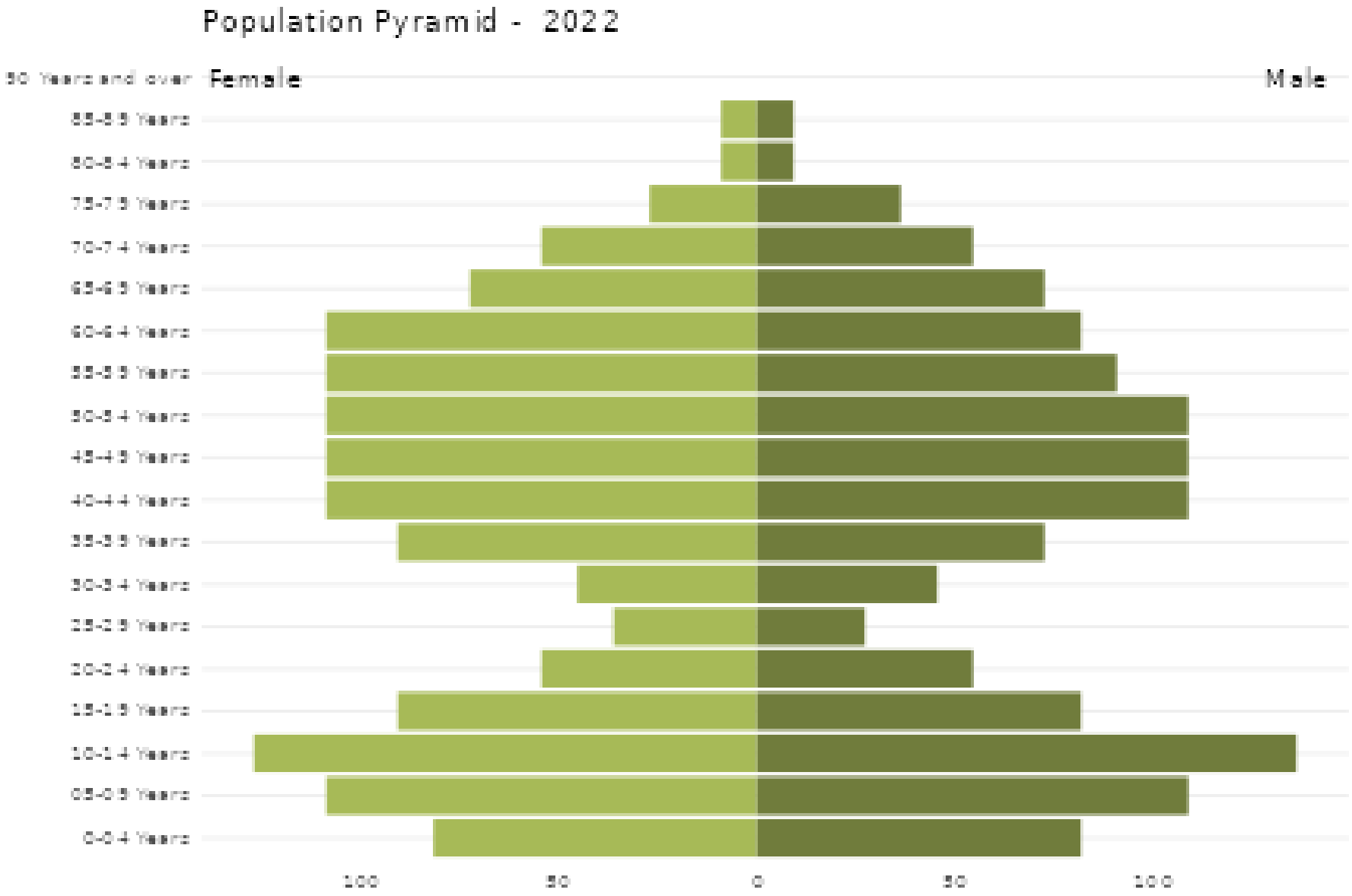
250

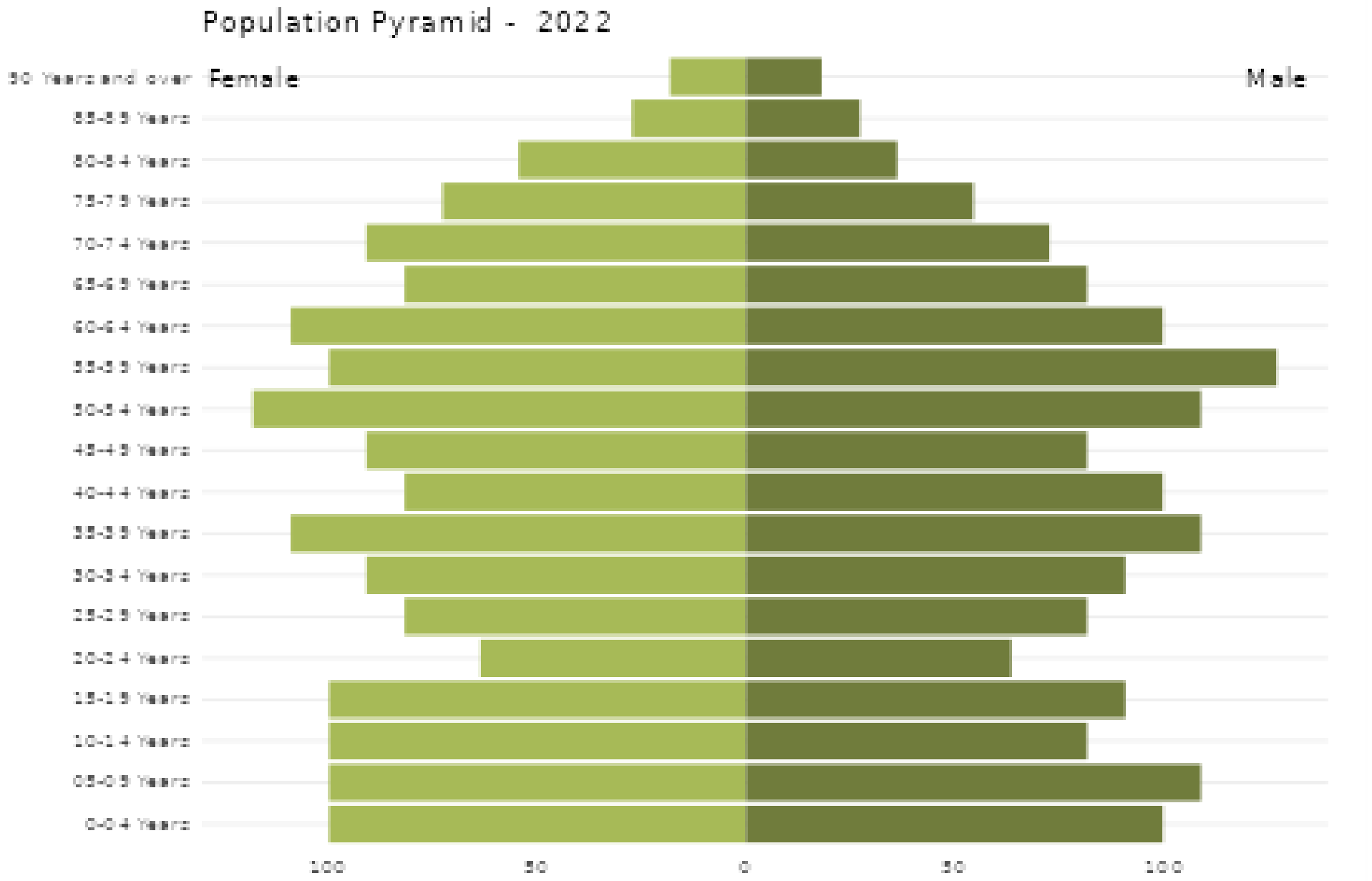
Prebbleton


Population Pyramid - 2022
Female
Male
90 Years and over
85-89 Years
80-84 Years
75-79 Years
70-74 Years
65-69 Years
60-64 Years
55-59 Years
50-54 Years
45-49 Years
40-44 Years
35-39 Years
30-34 Years
25-29 Years
20-24 Years
15-19 Years
10-14 Years
05-09 Years
0-04 Years
200
100
0
100
200

West Melton


Population Pyramid - 2022
Female
Male
90 Years and over
85-89 Years
80-84 Years
75-79 Years
70-74 Years
65-69 Years
60-64 Years
55-59 Years
50-54 Years
45-49 Years
40-44 Years
35-39 Years
30-34 Years
25-29 Years
20-24 Years
15-19 Years
10-14 Years
05-09 Years
0-04 Years
100
50
0
50
100

Darfield


Population Pyramid - 2022
Female
Male
90 Years and over
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80-84 Years
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50-54 Years
45-49 Years
40-44 Years
35-39 Years
30-34 Years
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20-24 Years
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10-14 Years
05-09 Years
0-04 Years
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50
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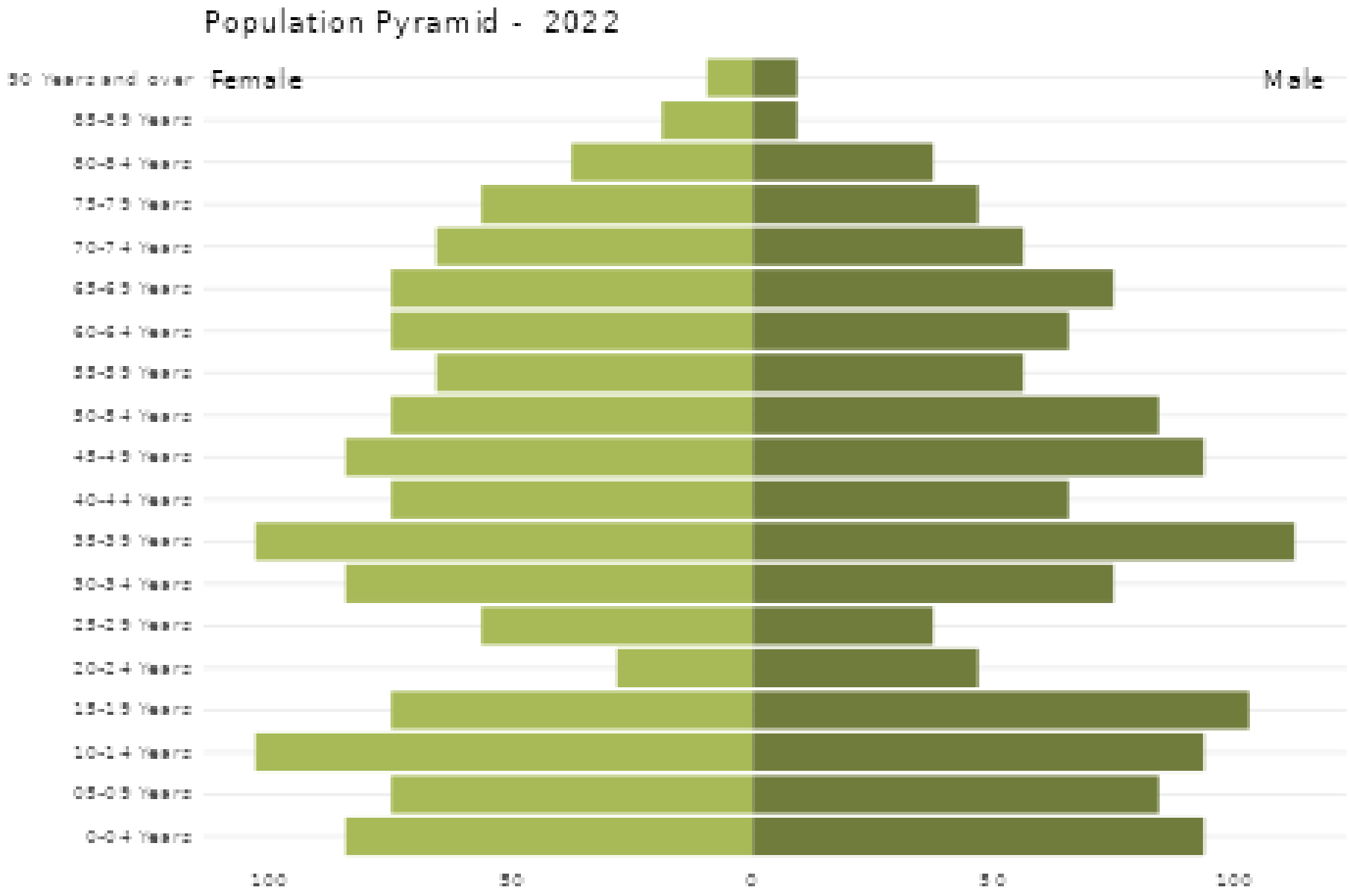
Leeston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Male
90 Years and over
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75-79 Years
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60-64 Years
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50-54 Years
45-49 Years
40-44 Years
35-39 Years
30-34 Years
25-29 Years
20-24 Years
15-19 Years
10-14 Years
05-09 Years
0-04 Years
100
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0
50
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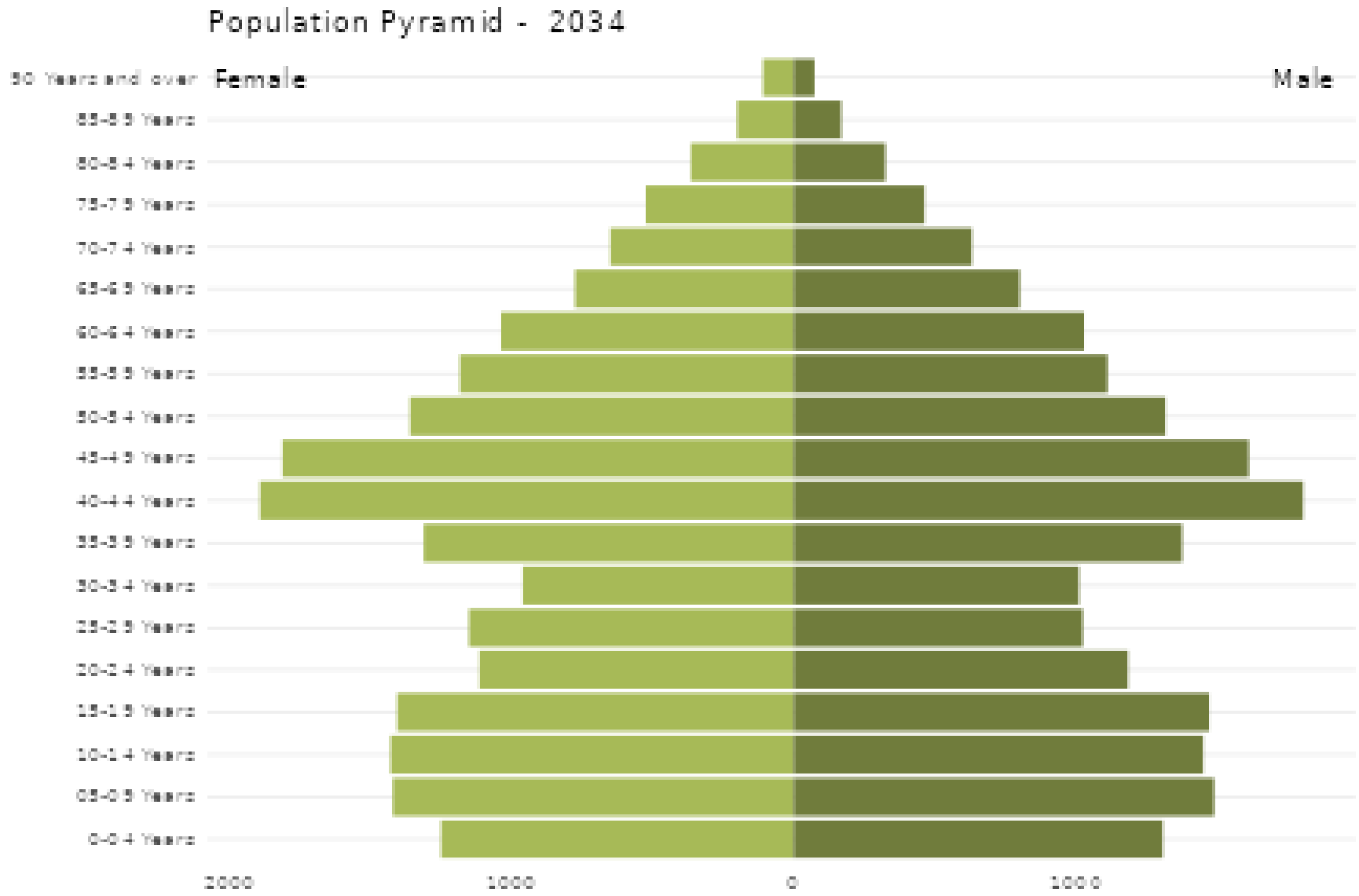
Appendix 3 – Projection Population Pyramids for Townships

Rolleston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Male
90 Years and over
85-89 Years
80-84 Years
75-79 Years
70-74 Years
65-69 Years
60-64 Years
55-59 Years
50-54 Years
45-49 Years
40-44 Years
35-39 Years
30-34 Years
25-29 Years
20-24 Years
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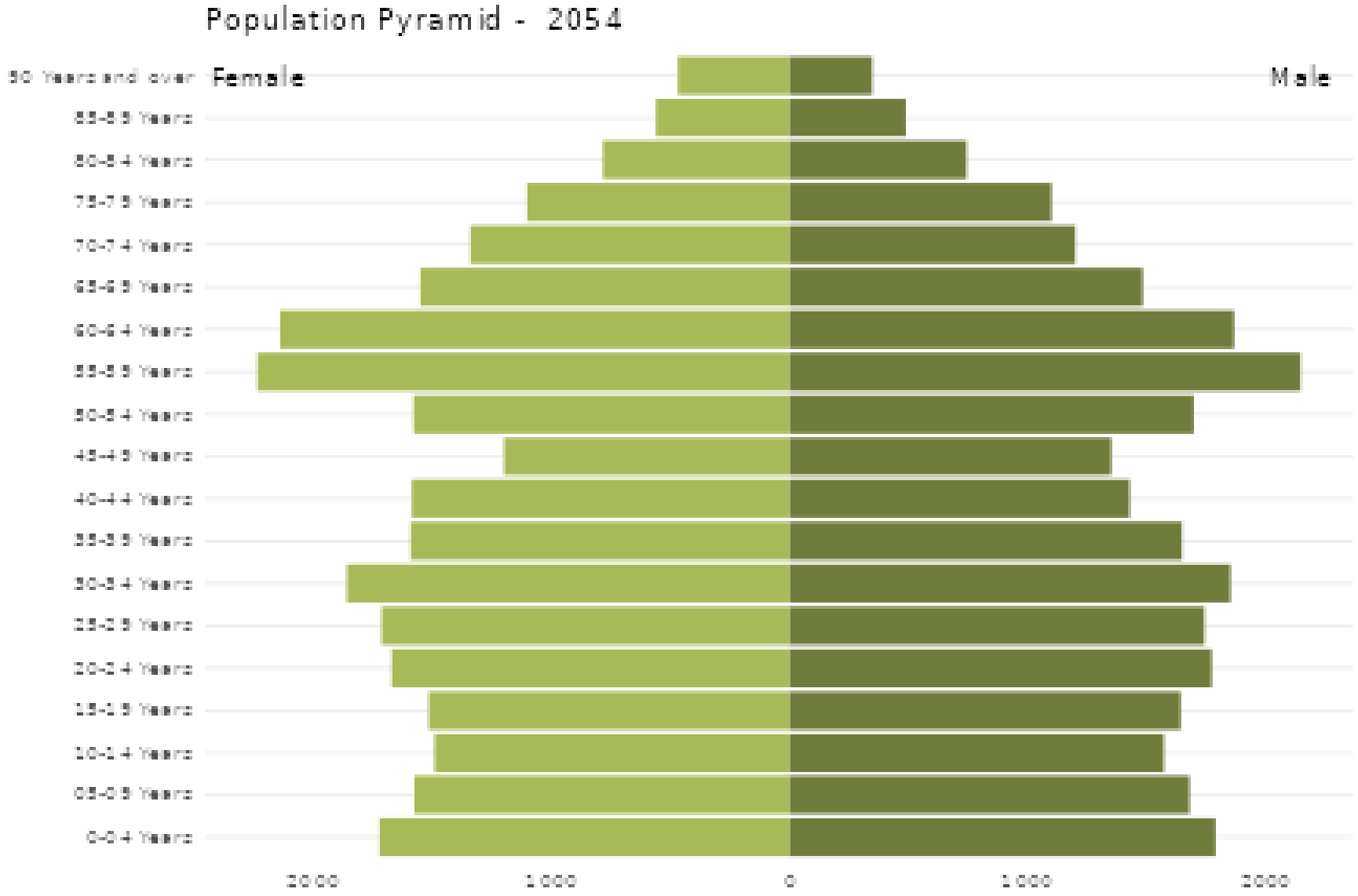
10-14 Years
05-09 Years
0-04 Years
2000
1000
0
1000

Rolleston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Male
90 Years and over
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80-84 Years
75-79 Years
70-74 Years
65-69 Years
60-64 Years
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50-54 Years
45-49 Years
40-44 Years
35-39 Years
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0-04 Years
2000
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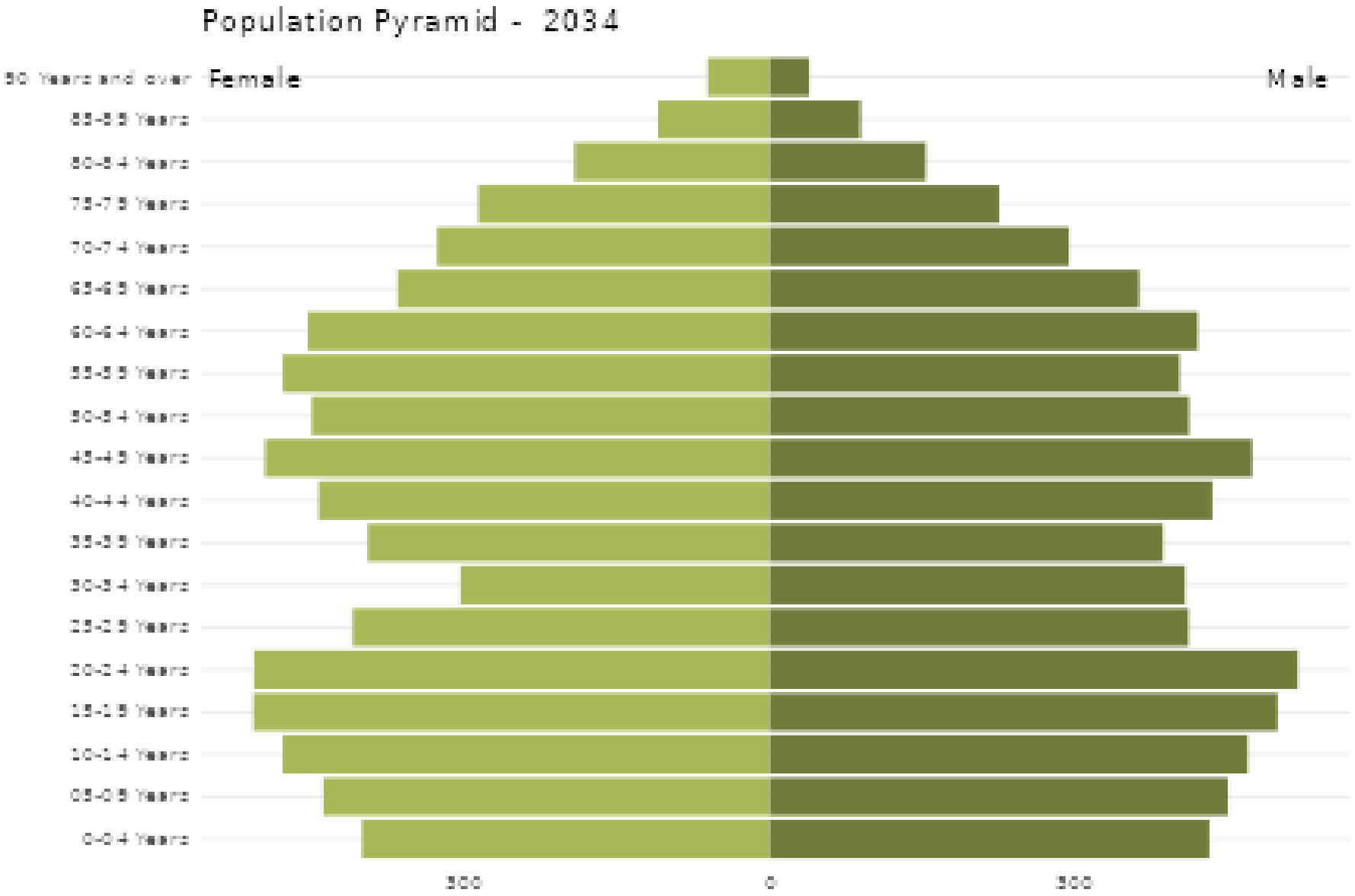
2000

Lincoln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Male
90 Years and over
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80-84 Years
75-79 Years
70-74 Years
65-69 Years
60-64 Years
55-59 Years
50-54 Years
45-49 Years
40-44 Years
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05-09 Years
0-04 Years
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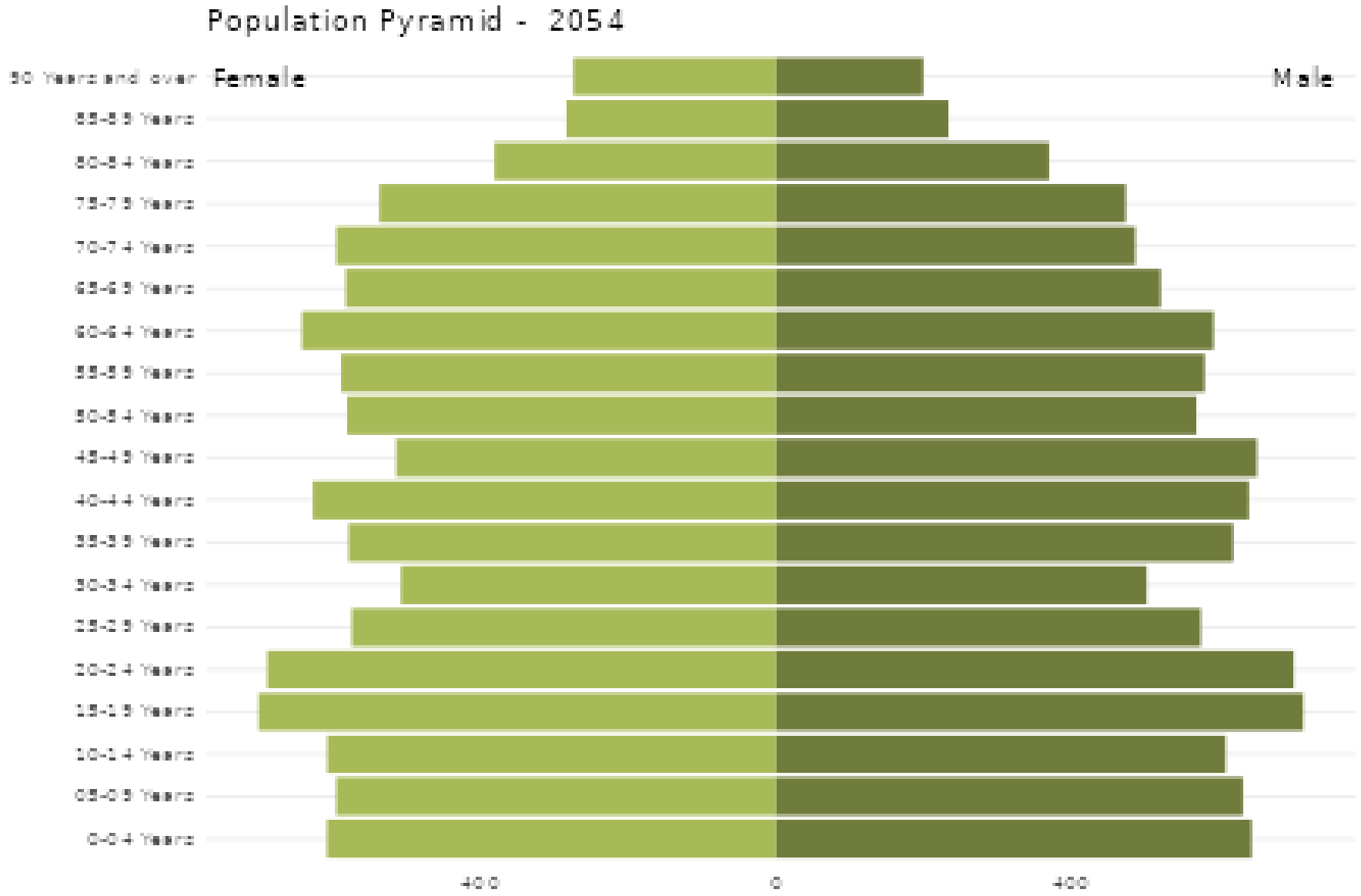
Lincoln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Male
90 Years and over
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40-44 Years
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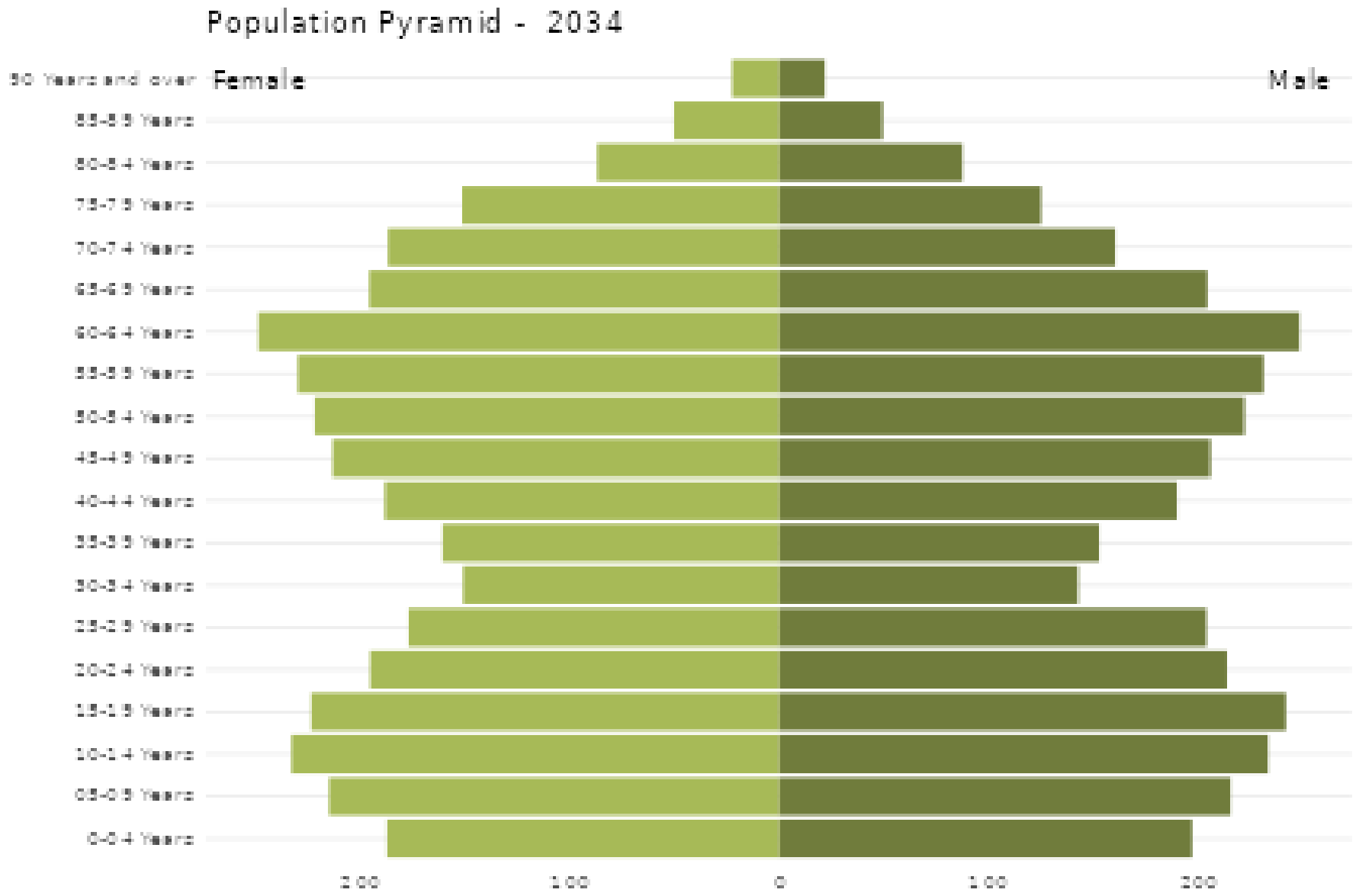
Prebbleton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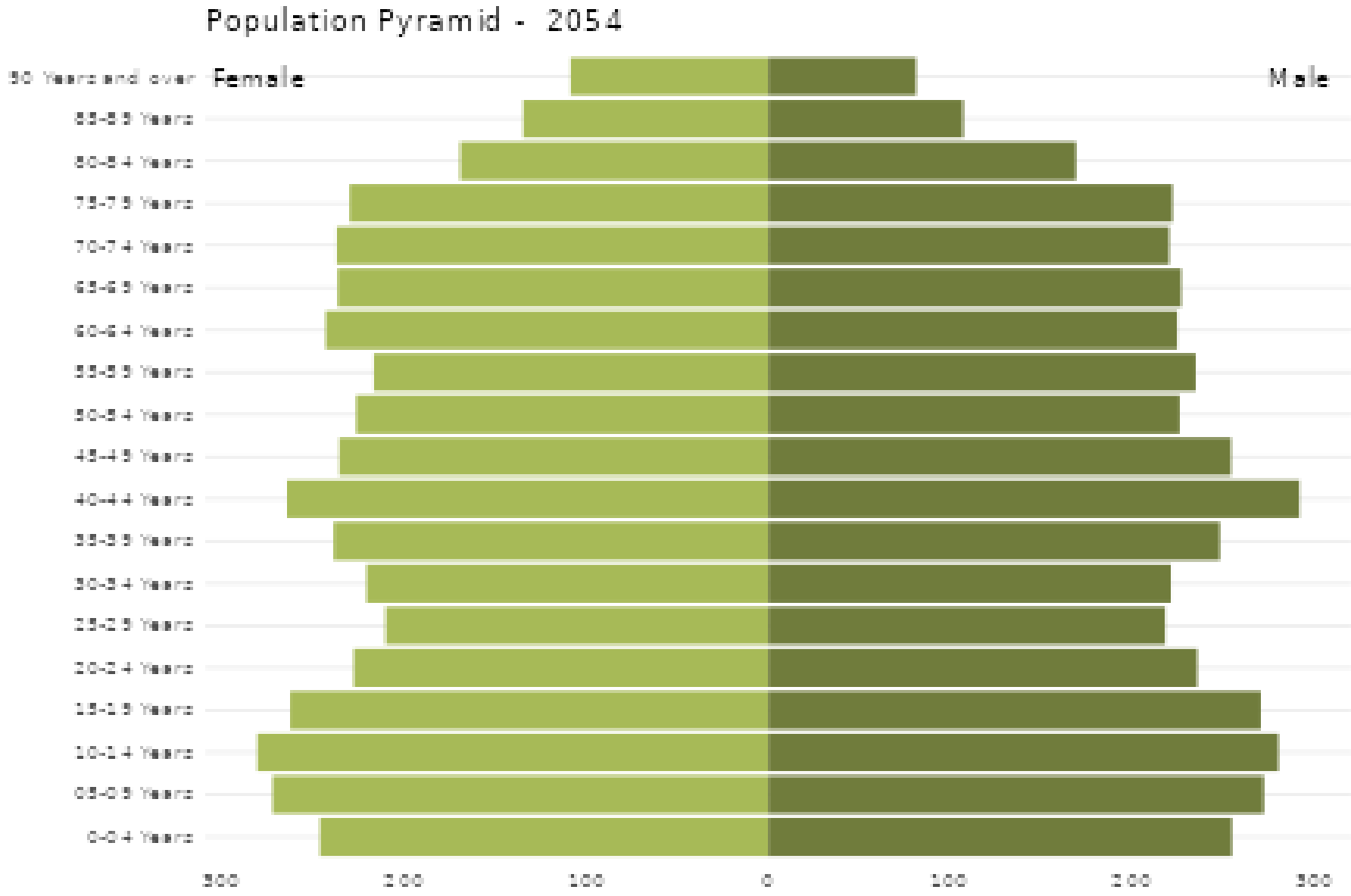
Prebbleton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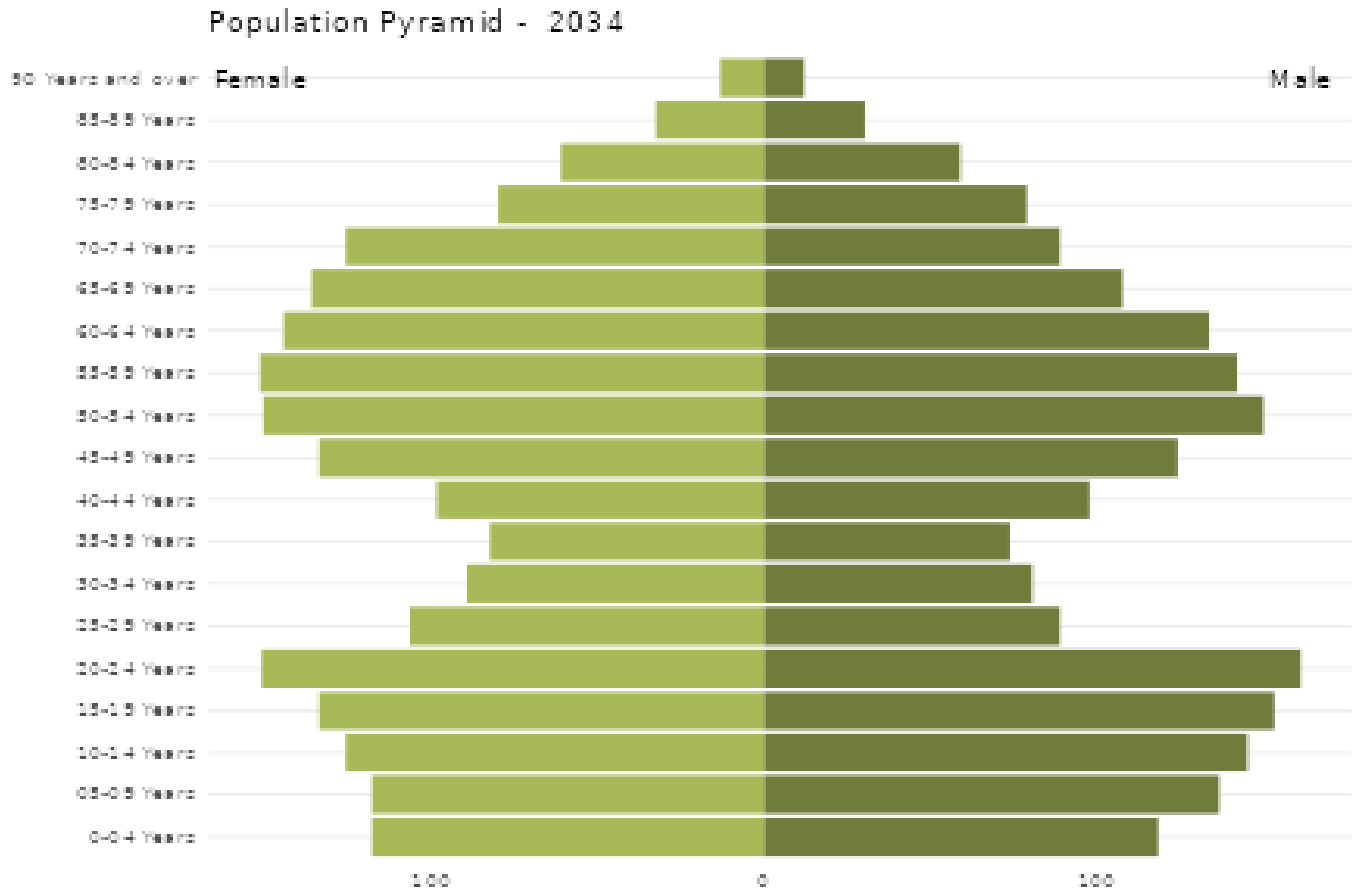
West Melton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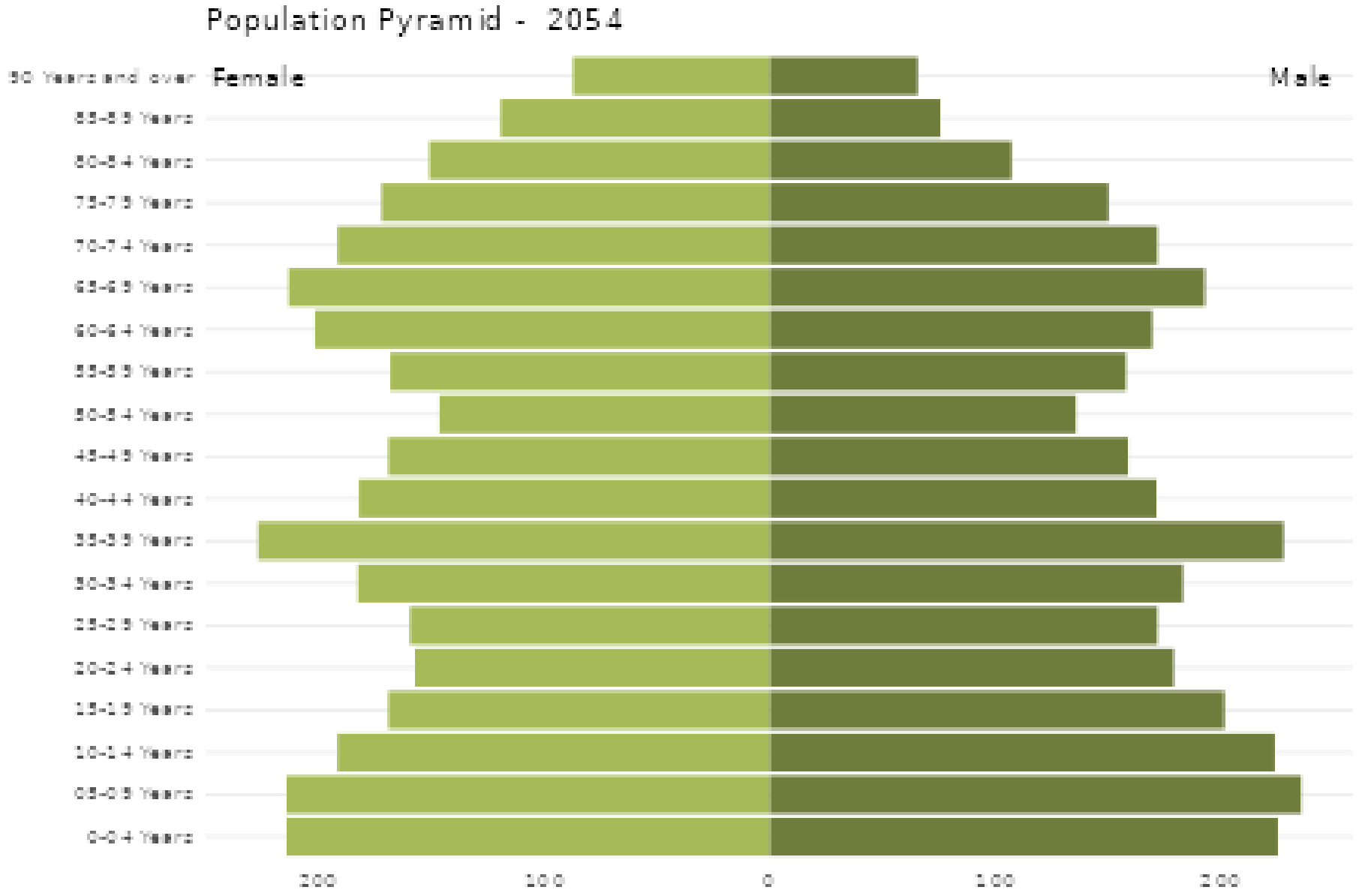
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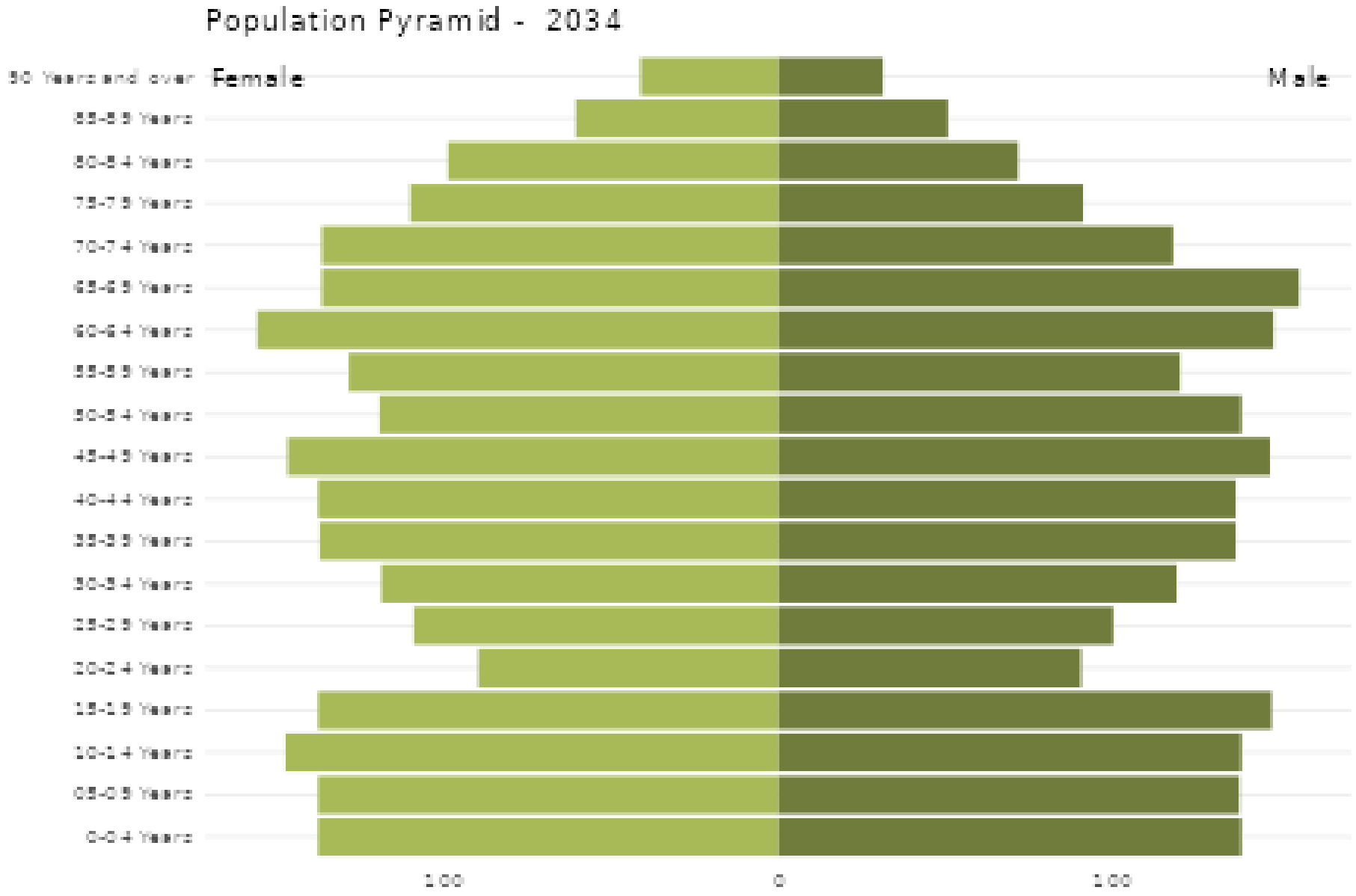
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45-49 Years
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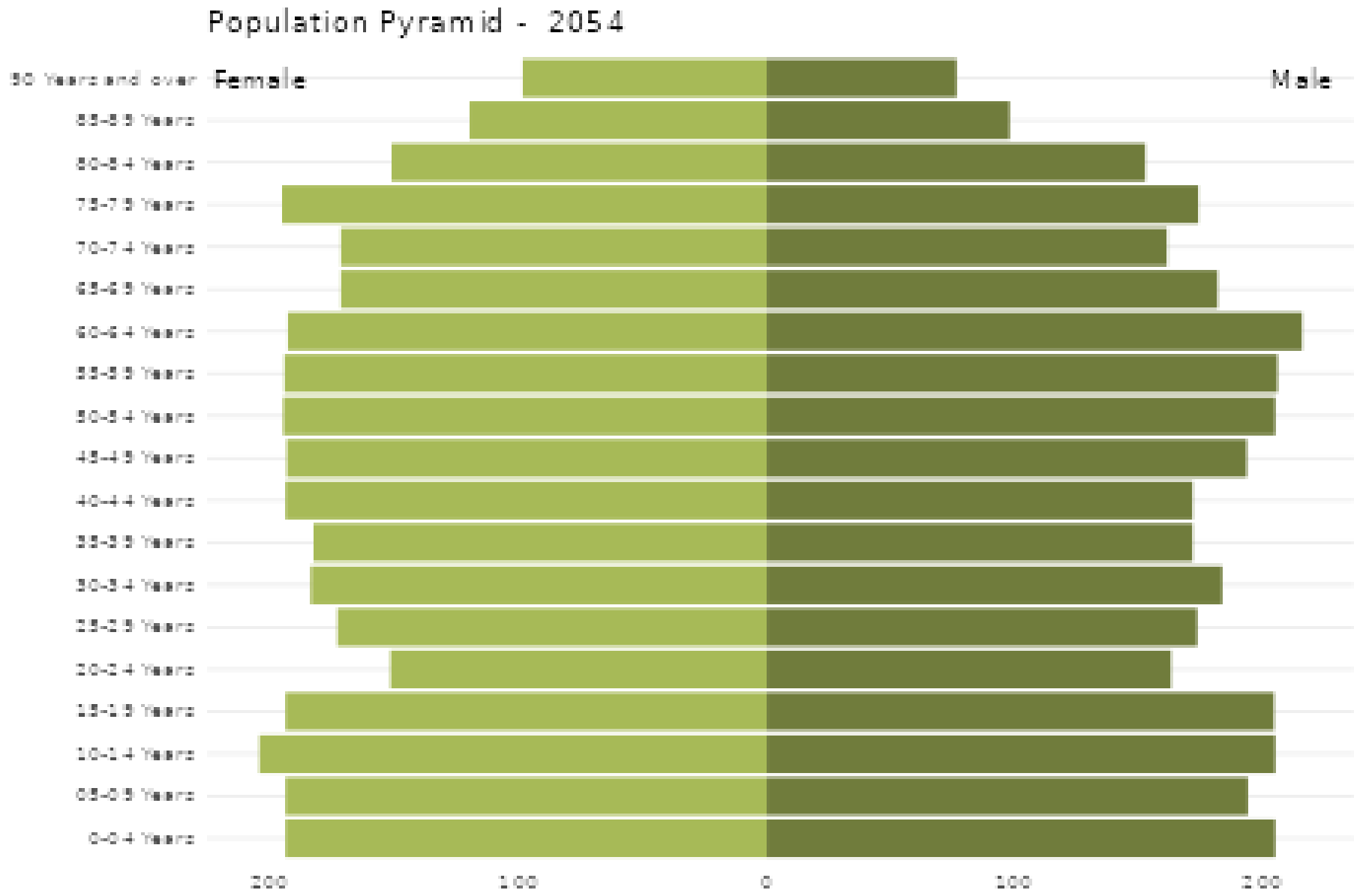
Darfield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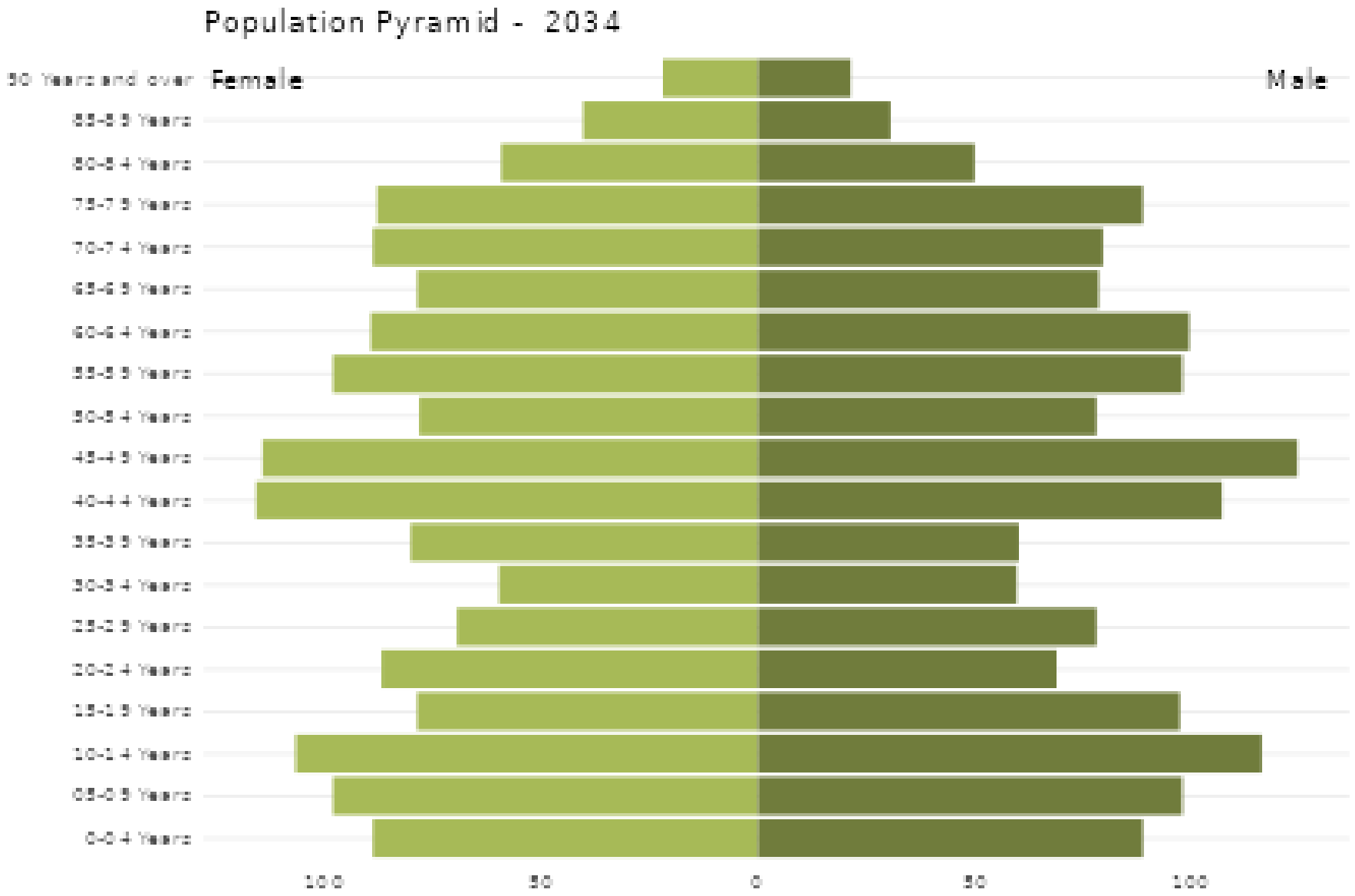
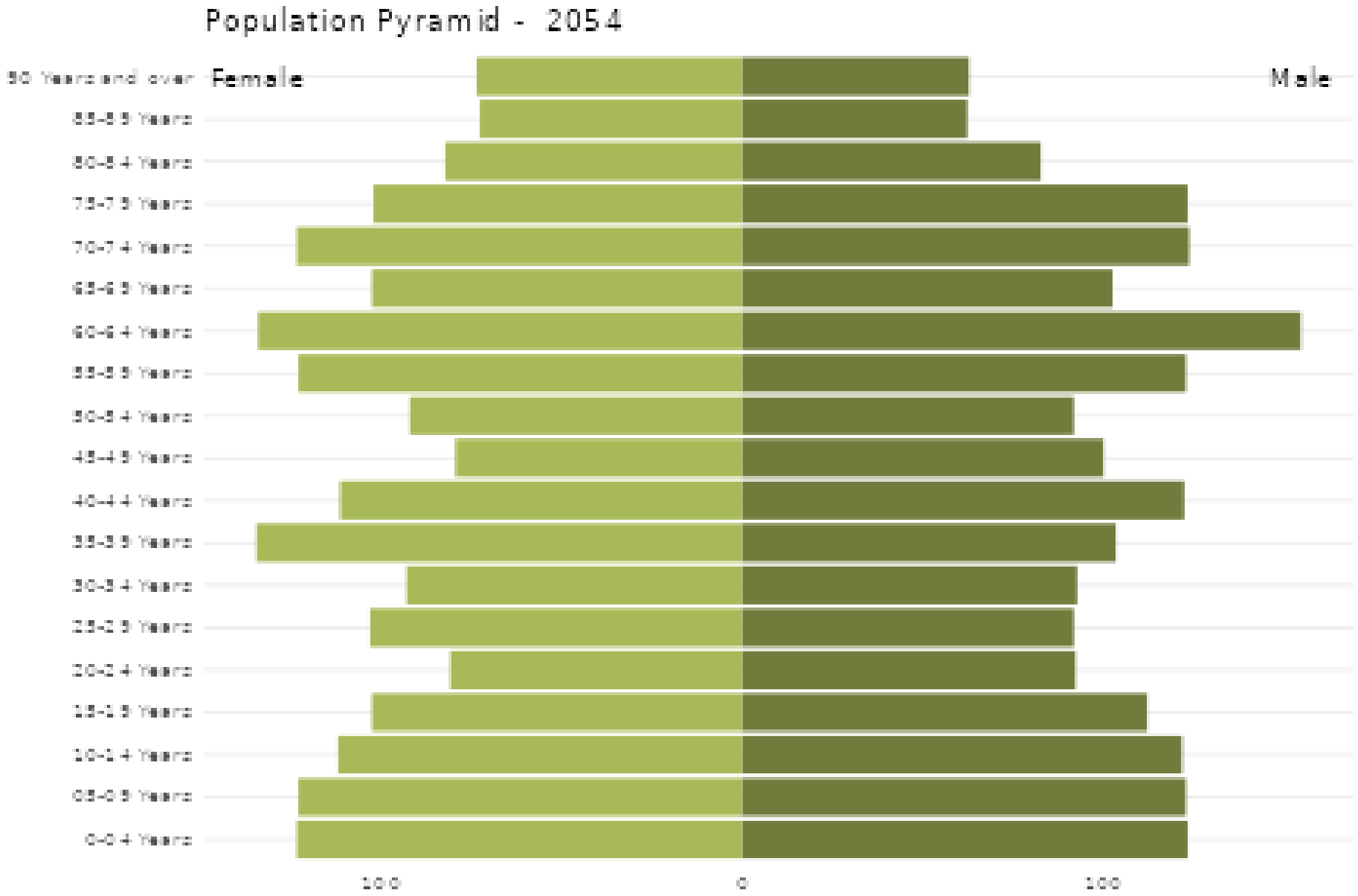
Female
Male
90 Years and over
85-89 Years
80-84 Years
75-79 Years
70-74 Years
65-69 Years
60-64 Years
55-59 Years
50-54 Years
45-49 Years
40-44 Years
35-39 Years
30-34 Years
25-29 Years
20-24 Years
15-19 Years
10-14 Years
05-09 Years
0-04 Years
200
100
0
100
200

Leeston


Population Pyramid - 2034
Female
Male
90 Years and over
85-89 Years
80-84 Years
75-79 Years
70-74 Years
65-69 Years
60-64 Years
55-59 Years
50-54 Years
45-49 Years
40-44 Years
35-39 Years
30-34 Years
25-29 Years
20-24 Years
15-19 Years
10-14 Years
05-09 Years
0-04 Years
100
50
0
50
100

Leeston


Population Pyramid - 2054
Female
Male
90 Years and over
85-89 Years
80-84 Years
75-79 Years
70-74 Years
65-69 Years
60-64 Years
55-59 Years
50-54 Years
45-49 Years
40-44 Years
35-39 Years
30-34 Years
25-29 Years
20-24 Years
15-19 Years
10-14 Years
05-09 Years
0-04 Years
100
0
100

Appendix 4 – Selwyn District Projected Population, Households and Dwellings by Township (2022 – 2054)

Selwyn District Projected Population by Township (2022-2054)

Township	2022	2023	2024	2025	2026	2027	2031	2032	2033	2034	2051	2052	2053	2054
Arthurs Pass	45	49	51	53	54	56	61	62	62	63	67	67	68	68
Castle Hill	49	64	70	76	82	87	105	109	113	117	184	188	192	196
Coalgate	384	390	399	408	416	425	459	468	477	483	600	607	614	621
Darfield	3120	3224	3350	3476	3603	3729	4179	4287	4395	4505	6365	6474	6584	6693
Doyleston	334	337	344	351	358	365	390	396	402	407	487	491	496	501
Dunsandel	491	497	513	529	546	562	624	639	654	669	915	930	944	958
Glentunnel	189	192	195	199	203	207	221	225	229	232	281	284	287	290
Hororata	254	259	276	293	310	326	393	409	426	441	697	712	727	742
Kirwee	1008	1047	1081	1114	1147	1180	1309	1341	1372	1397	1817	1842	1867	1891
Lake Coleridge	74	82	85	89	92	95	104	106	107	108	121	121	122	123
Leeston	2490	2515	2570	2626	2681	2737	2925	2969	3013	3059	3843	3889	3936	3982
Lincoln	9180	10060	10438	10817	11195	11574	12964	13302	13639	13978	19751	20090	20430	20770
Prebbleton	5260	5392	5523	5655	5786	5917	6379	6489	6599	6691	8250	8342	8433	8525
Rakaia Huts	185	186	187	188	189	190	193	194	195	195	203	203	204	204
Rolleston	28000	30465	31363	32261	33160	34058	37271	38043	38814	39597	52902	53685	54467	55250
Sheffield	217	220	228	235	242	250	278	286	293	299	413	420	427	433
Southbridge	1058	1075	1111	1147	1184	1220	1361	1396	1430	1460	1956	1985	2015	2044
Springfield	370	377	393	410	426	443	507	523	540	555	813	829	844	859
Springston	472	484	490	496	502	508	530	535	541	545	613	617	621	625
Tai Tapu	717	747	777	806	835	864	974	1000	1027	1053	1485	1510	1536	1561
Waddington	150	152	155	157	160	163	174	176	179	181	223	225	227	230
West Melton	2640	2744	2865	2986	3108	3229	3687	3799	3912	4036	6152	6277	6401	6525
Whitecliffs	226	230	235	241	246	252	274	279	285	289	364	369	373	378
Rest of the District	22355	22993	23611	24230	24849	25468	27700	28237	28775	29304	38303	38833	39362	39891

Selwyn District Projected Households by Township (2022-2054)

Township	2022	2023	2024	2025	2026	2027	2031	2032	2033	2034	2051	2052	2053	2054
Arthurs Pass	31	31	31	31	31	31	31	31	31	31	32	32	32	32
Castle Hill	34	40	42	44	46	48	54	55	56	58	87	89	90	92
Coalgate	150	151	155	158	161	164	176	180	183	185	233	236	239	241
Darfield	1224	1254	1299	1345	1390	1436	1605	1647	1688	1731	2453	2495	2538	2580
Doyleston	124	125	127	130	132	135	144	146	148	150	184	186	188	190
Dunsandel	169	171	176	182	188	193	215	220	225	231	328	334	339	345
Glentunnel	74	74	76	77	78	80	85	86	88	89	109	110	112	113
Hororata	86	88	93	99	105	111	133	139	145	151	250	256	262	268
Kirwee	379	390	402	413	425	437	482	494	505	515	690	700	711	721
Lake Coleridge	51	52	52	52	52	53	53	54	54	54	57	57	58	58
Leeston	869	877	897	917	937	957	1027	1044	1061	1079	1383	1401	1419	1437
Lincoln	3501	3753	3889	4025	4162	4298	4822	4952	5081	5213	7452	7584	7716	7848
Prebbleton	1715	1753	1800	1847	1894	1942	2116	2158	2200	2236	2840	2875	2911	2946
Rakaia Huts	64	64	64	65	65	65	67	67	67	67	72	73	73	73
Rolleston	9447	10152	10475	10799	11123	11446	12658	12953	13249	13553	18717	19020	19324	19628
Sheffield	78	79	81	84	87	89	99	102	105	107	151	154	156	159
Southbridge	365	370	383	395	408	420	469	481	493	505	697	708	720	731
Springfield	133	135	141	147	152	158	181	187	193	199	298	304	309	315
Springston	179	181	183	185	187	189	196	198	199	201	232	234	236	237
Tai Tapu	245	254	264	274	284	295	333	342	352	362	533	543	553	563
Waddington	54	54	55	56	57	58	62	63	64	65	81	82	83	84
West Melton	850	880	924	967	1011	1055	1228	1271	1314	1362	2183	2231	2280	2328
Whitecliffs	88	89	91	93	95	97	105	107	109	111	141	143	145	147
Rest of the District	7794	7977	8204	8431	8658	8885	9750	9963	10175	10379	13840	14043	14247	14450

Selwyn District Projected Dwellings by Township (2022-2054)

Township	2022	2023	2024	2025	2026	2027	2031	2032	2033	2034	2051	2052	2053	2054
Arthurs Pass	40	40	40	40	40	40	40	40	40	41	41	41	41	41
Castle Hill	56	63	65	68	70	72	78	80	81	83	115	117	119	121
Coalgate	153	155	158	162	165	169	182	186	189	192	245	248	251	254
Darfield	1312	1345	1395	1445	1495	1545	1732	1778	1824	1871	2667	2714	2761	2808
Doyleston	124	125	128	130	133	136	146	149	151	153	190	193	195	197
Dunsandel	169	171	177	183	189	196	219	225	231	237	344	351	357	363
Glentunnel	80	81	82	84	85	87	93	94	96	97	119	121	122	123
Hororata	86	88	94	101	107	113	138	144	151	157	267	273	280	286
Kirwee	383	395	408	421	434	446	497	509	522	533	726	737	749	760
Lake Coleridge	57	58	58	58	59	59	60	60	60	60	64	64	64	65
Leeston	924	932	954	976	998	1020	1098	1117	1136	1155	1491	1511	1531	1551
Lincoln	3773	4051	4201	4352	4502	4652	5231	5373	5516	5661	8132	8277	8423	8568
Prebbleton	1780	1821	1874	1926	1978	2030	2222	2269	2315	2354	3021	3060	3099	3138
Rakaia Huts	67	67	67	68	68	69	70	70	71	71	76	76	77	77
Rolleston	10062	10839	11196	11553	11910	12267	13603	13930	14256	14591	20287	20622	20957	21292
Sheffield	78	79	82	85	88	90	102	105	107	110	159	162	164	167
Southbridge	365	371	384	398	412	426	480	493	507	519	731	744	756	769
Springfield	133	135	142	148	154	161	186	193	199	205	315	321	328	334
Springston	182	184	187	189	191	193	201	203	205	207	241	243	245	247
Tai Tapu	245	255	266	277	288	300	342	353	363	374	562	573	584	596
Waddington	54	54	55	57	58	59	63	64	65	66	84	85	86	88
West Melton	890	923	971	1019	1068	1116	1307	1354	1402	1455	2360	2414	2467	2520
Whitecliffs	88	89	91	94	96	98	107	109	111	113	147	149	151	153
Rest of the District	9458	9660	9911	10161	10411	10662	11616	11851	12085	12310	16127	16352	16576	16801

Selwyn District Projected Household Size (2022-2054)

Township	2022	2023	2024	2025	2026	2027	2031	2032	2033	2034	2051	2052	2053	2054
Arthurs Pass	1.5	1.6	1.6	1.7	1.8	1.8	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.1
Castle Hill	1.5	1.6	1.7	1.7	1.8	1.8	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.1
Coalgate	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Darfield	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Doyleston	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6
Dunsandel	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.8
Glentunnel	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Hororata	2.9	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.8
Kirwee	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6
Lake Coleridge	1.5	1.6	1.6	1.7	1.8	1.8	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.1
Leeston	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Lincoln	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.6	2.6
Prebbleton	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.9
Rakaia Huts	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.8
Rolleston	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.8
Sheffield	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.7
Southbridge	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.8
Springfield	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.7
Springston	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6
Tai Tapu	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.8
Waddington	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.7
West Melton	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	2.8	2.8	2.8	2.8
Whitecliffs	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Rest of the District	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8