

# Growth Projections - 2022

Final Draft

December 2022



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Growth Projections - 2022

## Prepared for:

Central Otago District Council

## Quality Assurance Statement

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# Table of Contents

|  |           |
|--|-----------|
| <b>Glossary</b> .....                  | <b>6</b>  |
| Output Definitions .....               | 6         |
| Other Definitions .....                | 6         |
| <b>Background</b> .....                | <b>7</b>  |
| <b>1.1 Purpose</b> .....               | <b>7</b>  |
| <b>1.2 Context</b> .....               | <b>7</b>  |
| <b>Part A: Outputs</b> .....           | <b>8</b>  |
| <b>2 District</b> .....                | <b>9</b>  |
| <b>2.1 Summary</b> .....               | <b>10</b> |
| <b>2.2 Outputs</b> .....               | <b>10</b> |
| <b>3 Cromwell Ward</b> .....           | <b>12</b> |
| 3.1.1 Summary .....                    | 13        |
| 3.1.2 Outputs.....                     | 13        |
| <b>3.2 Cromwell SA2</b> .....          | <b>15</b> |
| 3.2.1 Summary .....                    | 16        |
| 3.2.2 Outputs.....                     | 16        |
| <b>3.3 Bannockburn</b> .....           | <b>18</b> |
| 3.3.1 Summary .....                    | 19        |
| 3.3.2 Outputs.....                     | 19        |
| <b>3.4 Pisa Moorings</b> .....         | <b>21</b> |
| 3.4.1 Summary .....                    | 22        |
| 3.4.2 Outputs.....                     | 22        |
| <b>4 Vincent Ward</b> .....            | <b>23</b> |
| 4.1.1 Summary .....                    | 24        |
| 4.1.2 Outputs.....                     | 24        |
| <b>4.2 Alexandra</b> .....             | <b>26</b> |
| 4.2.1 Summary .....                    | 27        |
| 4.2.2 Outputs.....                     | 27        |
| <b>4.3 Clyde</b> .....                 | <b>29</b> |
| 4.3.1 Summary .....                    | 30        |
| 4.3.2 Outputs.....                     | 30        |
| <b>4.4 Omakau &amp; Ophir</b> .....    | <b>32</b> |
| 4.4.1 Summary .....                    | 32        |
| 4.4.2 Outputs.....                     | 33        |
| <b>5 Teviot Ward</b> .....             | <b>34</b> |
| 5.1.1 Summary .....                    | 35        |
| 5.1.2 Outputs.....                     | 35        |
| <b>5.2 Roxburgh</b> .....              | <b>37</b> |
| 5.2.1 Summary .....                    | 38        |
| 5.2.2 Outputs.....                     | 38        |
| <b>5.3 Lake Roxburgh Village</b> ..... | <b>39</b> |
| 5.3.1 Summary .....                    | 40        |

|                                  |  |           |
|----------------------------------|--|-----------|
| 5.3.2                            | Outputs.....                                       | 40        |
| <b>5.4</b>                       | <b>Ettrick.....</b>                                | <b>41</b> |
| 5.4.1                            | Summary .....                                      | 42        |
| 5.4.2                            | Outputs.....                                       | 42        |
| <b>5.5</b>                       | <b>Millers Flat .....</b>                          | <b>43</b> |
| 5.5.1                            | Summary .....                                      | 44        |
| 5.5.2                            | Outputs.....                                       | 44        |
| <b>6</b>                         | <b>Maniototo Ward .....</b>                        | <b>45</b> |
| 6.1.1                            | Summary .....                                      | 46        |
| 6.1.2                            | Outputs.....                                       | 46        |
| <b>6.2</b>                       | <b>Ranfurly .....</b>                              | <b>48</b> |
| 6.2.1                            | Summary .....                                      | 49        |
| 6.2.2                            | Outputs.....                                       | 49        |
| <b>6.3</b>                       | <b>Naseby.....</b>                                 | <b>50</b> |
| 6.3.1                            | Summary .....                                      | 51        |
| 6.3.2                            | Outputs.....                                       | 51        |
| <b>6.4</b>                       | <b>Patearoa .....</b>                              | <b>52</b> |
| 6.4.1                            | Summary .....                                      | 53        |
| 6.4.2                            | Outputs.....                                       | 53        |
| <b>7</b>                         | <b>Rating Units Forecast Growth for 2022 .....</b> | <b>54</b> |
| <b>Part B: Methodology .....</b> |  | <b>55</b> |
| <b>1</b>                         | <b>Scope.....</b>                                  | <b>56</b> |
| 1.1                              | Ward Boundaries .....                              | 57        |
| 1.2                              | Statistical Area 2 Boundaries.....                 | 57        |
| 1.3                              | Rural Township Boundaries .....                    | 58        |
| <b>2</b>                         | <b>Economic Context and Historical Growth.....</b> | <b>59</b> |
| 2.1                              | Economic Context .....                             | 59        |
| 2.2                              | Population Breakdown.....                          | 60        |
| 2.3                              | Regional Context.....                              | 61        |
| <b>3</b>                         | <b>Key Updates and Areas of Recast Growth.....</b> | <b>61</b> |
| <b>4</b>                         | <b>Growth Model .....</b>                          | <b>61</b> |
| <b>4.1</b>                       | <b>Population Model .....</b>                      | <b>61</b> |
| 4.1.1                            | Employment Projections .....                       | 62        |
| 4.1.2                            | Migration.....                                     | 63        |
| 4.1.3                            | Population Projections .....                       | 63        |
| <b>4.2</b>                       | <b>Outputs Model.....</b>                          | <b>63</b> |
| 4.2.1                            | Usually Resident Population.....                   | 63        |
| 4.2.2                            | Dwelling Projections.....                          | 63        |
| 4.2.3                            | Peak Day Population and Visitor Projections .....  | 63        |
| 4.2.4                            | Rateable units .....                               | 64        |
| 4.2.5                            | Custom Area - Patearoa .....                       | 64        |
| 4.2.6                            | Water and Wastewater Connections .....             | 65        |
| <b>4.3</b>                       | <b>Data sources.....</b>                           | <b>65</b> |

|   |           |
|---|-----------|
| <b>5 Growth Drivers by Area</b> .....             | <b>66</b> |
| <b>5.1 Cromwell</b> .....                         | <b>66</b> |
| 5.1.1 Employment .....                            | 66        |
| 5.1.2 Migration.....                              | 67        |
| <b>5.2 Clyde</b> .....                            | <b>69</b> |
| 5.2.1 Employment .....                            | 69        |
| 5.2.2 Migration.....                              | 70        |
| <b>5.3 Alexandra</b> .....                        | <b>72</b> |
| 5.3.1 Employment .....                            | 72        |
| 5.3.2 Migration.....                              | 73        |
| <b>5.4 Dunstan-Galloway</b> .....                 | <b>75</b> |
| 5.4.1 Employment .....                            | 75        |
| 5.4.2 Migration.....                              | 76        |
| <b>5.5 Earnscliffe</b> .....                      | <b>78</b> |
| 5.5.1 Employment .....                            | 78        |
| 5.5.2 Migration.....                              | 79        |
| <b>5.6 Manuherikia-Ida Valleys</b> .....          | <b>81</b> |
| 5.6.1 Employment .....                            | 81        |
| 5.6.2 Migration.....                              | 82        |
| <b>5.7 Lindis-Nevis Valleys</b> .....             | <b>84</b> |
| 5.7.1 Employment .....                            | 84        |
| 5.7.2 Migration.....                              | 85        |
| <b>5.8 Teviot Valley</b> .....                    | <b>87</b> |
| 5.8.1 Employment .....                            | 87        |
| 5.8.2 Migration.....                              | 88        |
| <b>5.9 Maniototo</b> .....                        | <b>90</b> |
| 5.9.1 Employment .....                            | 90        |
| 5.9.2 Migration.....                              | 91        |
| <b>5.10 Rural Townships</b> .....                 | <b>93</b> |
| <b>5.11 Water and Wastewater Schemes</b> .....    | <b>94</b> |
| <b>6 Growth Scenarios</b> .....                   | <b>95</b> |
| <b>Appendix A: Growth Model Methodology</b> ..... | <b>96</b> |

# Glossary

## OUTPUT DEFINITIONS

| Term   | Definition   |
|--|--|
| <b>Usually Resident Population (URP)</b>           | The number of people who usually live in an area.  |
| <b>Total Dwellings</b>                             | Any building structure, or any part of a building structure, that is used or intended to be used for human habitation.   |
| <b>Occupied Dwellings</b>                          | Any dwelling which usually has people residing in it.  |
| <b>Unoccupied Dwellings</b>                        | Any dwelling which usually does not have people residing in it. These are primarily holiday homes.   |
| <b>Total Rating Units</b>                          | The total number of rating units. This is the sum of the individual rating units below.  |
| <b>Rating Units – Residential &amp; Lifestyle</b>  | The number of rating units who are charged under the residential or lifestyle rate.  |
| <b>Rating Units - Commercial &amp; Industrials</b> | The number of rating units who are charged under the commercial and industrial rate.   |
| <b>Rating Units - Other</b>                        | The number of rating units who are charged under some other rate.  |
| <b>Peak Day Population</b>                         | The total population (Usually Resident Population plus Peak Day Visitors) that are within an area at any time in the day, on the busiest night within a 12-month period. |
| <b>Peak Day Visitors</b>                           | The number of visitors that are within an area at any time in the day, on the busiest night within a 12-month period.  |

## OTHER DEFINITIONS

| Term                            | Definition   |
|---------------------------------|--|
| <b>Rating Unit</b>              | The unit of liability for rates is the rating unit. It is based on the concept of ownership – where, in particular, 1 certificate of title = 1 rating unit. Valuation rules allow for exceptions and oddities, as not all land in New Zealand has a certificate of title.  |
| <b>Statistical Area 2 (SA2)</b> | The main purpose of the SA2 geography is to provide an output for higher aggregations of population data than can be provided at the SA1 level. The SA2 geography aims to reflect communities that interact together socially and economically. In populated areas, SA2s generally contain similar-sized populations. SA2s either define or aggregate to define urban-rural areas, territorial authorities, and regional councils. |
| <b>Net Migration</b>            | People moving into an area, less the people moving out of an area.   |

# 1 Background

## 1.1 Purpose

*How much growth is going to occur in Central Otago over the next 30 years? Where is it going to occur?  
And what are its likely drivers?*

The purpose of this project is understanding how Central Otago may grow over the next 30 years in terms of various measures such as population, number of dwellings, rating units and visitors. These are all extremely important inputs to the district's future planning.

This report is split into two sections:

- **Part A** provides several outputs for each area which can be used to inform a range of key projects, plans and strategies, including: District Plan Review, Spatial Planning, Infrastructure Strategy, Asset Management Plans, District Plan changes, Tourism Strategy, Long Term Plan.
- **Part B** covers the methodology used to calculate the projected growth, including the data used and assumptions that have been made. This part includes detail on jobs, age and migration.

## 1.2 Context

Rationale developed the previous growth projections for Central Otago District Council (CODC) in 2020. As these were developed in the emerging Covid-19 pandemic, six-monthly and annual "check ins" were recommended to assess monitor the impact of Covid-19 and reproject growth if necessary. The first of the six-monthly reviews suggested that Covid-19 is having minimal impact on growth in CODC, and the recommended scenario was changed to reflect this. Recent population estimates from Stats NZ suggest that growth is occurring faster than projected in CODC.

Rationale has updated the projections to reflect the latest information using a similar methodology to that used for the 2020 projections. This report presents the new projections at different area levels as agreed upon in the project plan. Water and wastewater scheme outputs have not been included in this report as they are dependent on the update of scheme boundaries, which is expected to happen later this year.

The figure below shows the difference between the new 2022 projections and the 2020 projections by Rationale, as well as the 2018 projections by Stats NZ. In both cases, we see that the 2022 projections have a more positive outlook on the growth of the district. The low scenario of the updated projections closely matches the high scenario of the Stats NZ 2018 projections, a clear reflection of the higher-than-anticipated growth the district has overseen in the last few years.

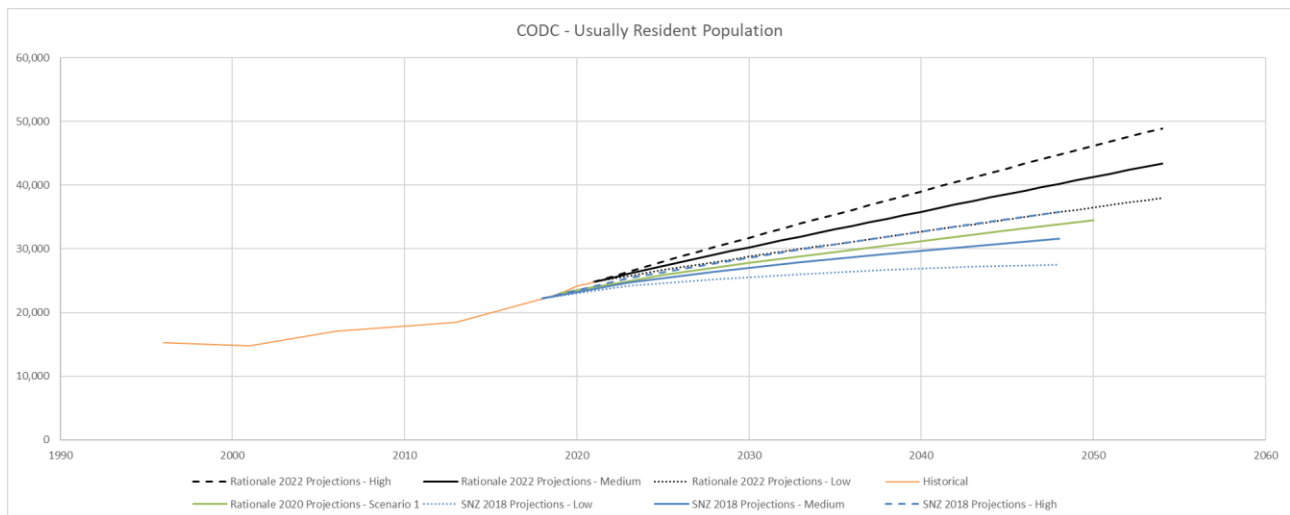


Figure 1: Comparison between Rationale 2022 Projections, Rationale 2020 Projections and SNZ 2018 Projections

# Part A: Outputs



## 2 District

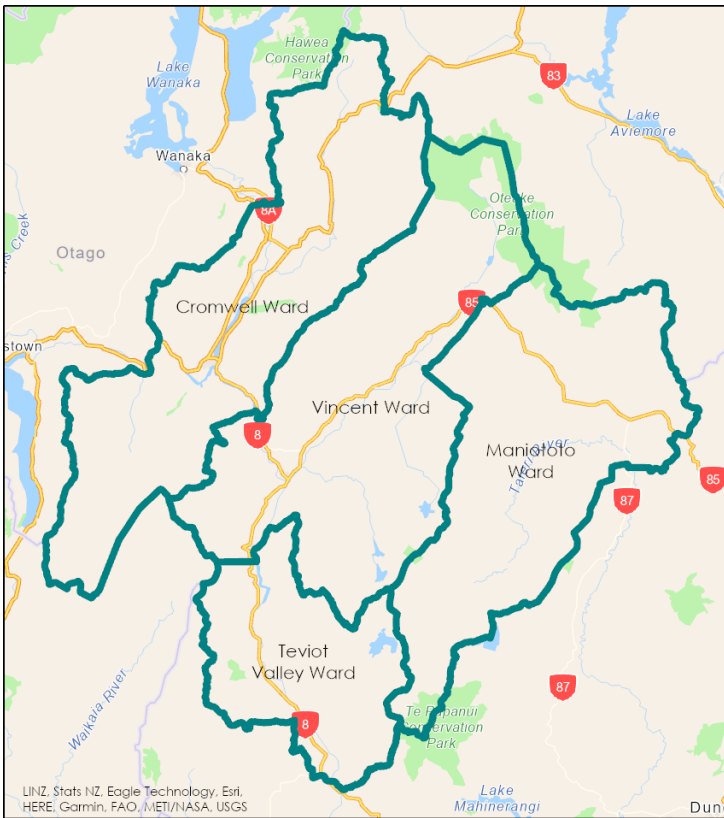


Figure 2: Area of Interest - CODC District

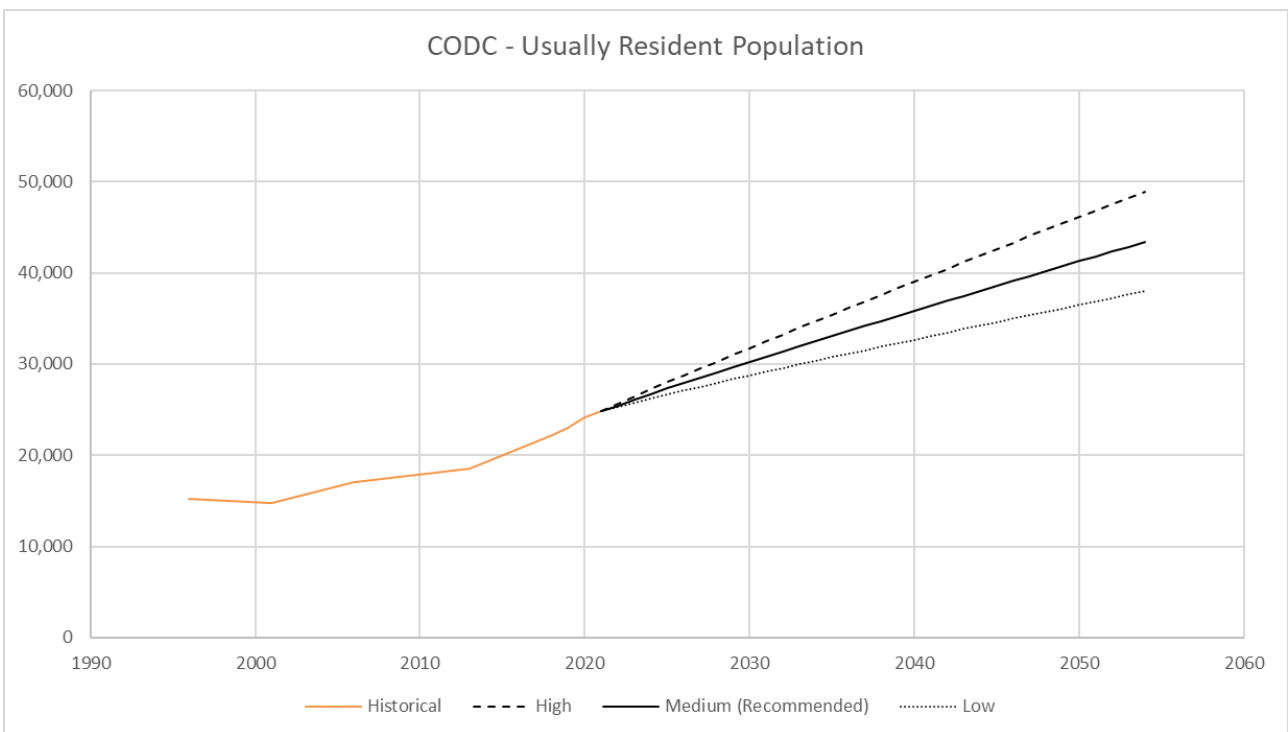


Figure 3: CODC – Usually Resident Population

## 2.1 Summary

CODC has experienced a marked period of faster growth in resident population since 2013 with an average annual growth rate of 3.7%. This is much higher than the growth seen from 2006-2013 which was at an annual average of 1.2%. However, the last two years saw this growth slow down to a rate of 2.5%, due to impact of Covid-19.

Employment opportunities in the district have followed a similar pattern; a growth rate of 2.3% from 2006-2013 which then rose to 3.4% since 2013. This growth has been driven primarily by the agriculture industry, and to some lower extent by the construction and administrative and support services industries. Employment growth has been a strong driver for the resident population growth in the district.

The number of dwellings appears to be following the increasing demand of the resident population, although at a slightly lower growth rate than population, showing 2.7% average annual growth since 2013. This is compensated by the fact that people per dwelling numbers have slightly risen from 2.40 in 2013 to 2.46 in 2021, and the percentage of occupied dwellings has also risen from 76.9% to 81.3%. This means a higher proportion of the dwellings in the area are actually being used, and there are slightly more people living per dwelling.

Short term and long-term indicators suggest the population growth rate will continue at a rate similar to the last two years, rather than the more accelerated rate seen prior to that.

## 2.2 Outputs

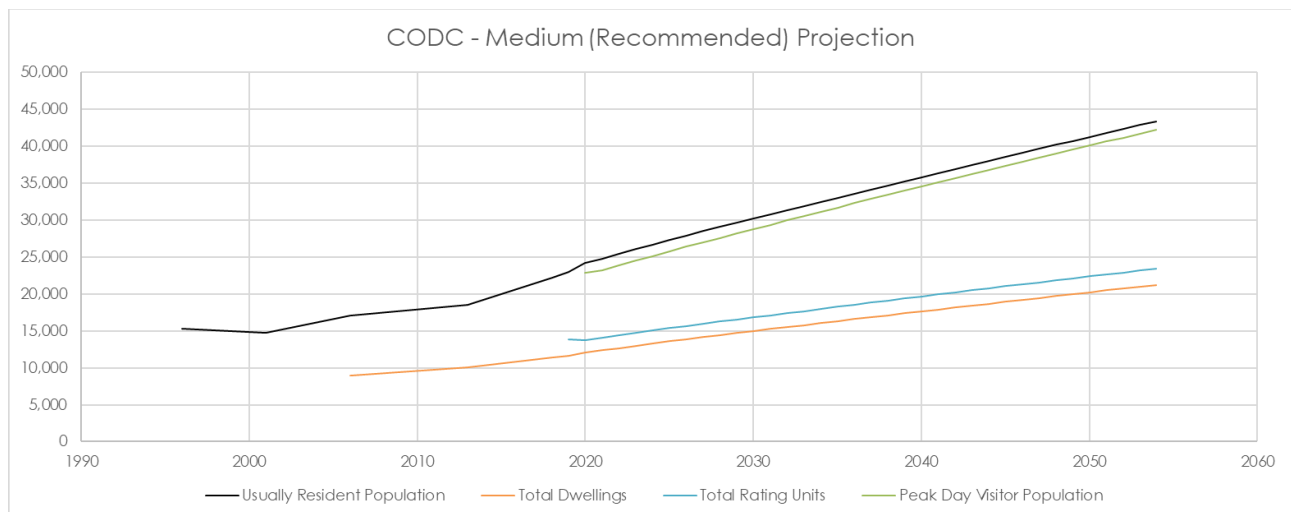


Figure 4: CODC – Medium Projection

Table 1: CODC - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006   | 2013   | 2018   | 2019   | 2020   | 2021   | 2024   | 2034   | 2054   |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Usually Resident Population</b>            | 17,050 | 18,500 | 22,200 | 23,000 | 24,200 | 24,800 | 26,707 | 32,501 | 43,390 |
| <b>Total Dwellings</b>                        | 8,952  | 10,020 | 11,382 | 11,675 | 12,126 | 12,360 | 13,283 | 16,064 | 21,239 |
| <b>Total Rating Units</b>                     |        |        |        | 13,805 | 13,761 | 14,081 | 15,049 | 17,981 | 23,457 |
| <b>Residential and Lifestyle Rating Units</b> |        | 9,718  | 10,765 | 11,024 | 11,376 | 11,613 | 12,536 | 15,317 | 20,492 |
| <b>Peak Day Population</b>                    |        |        |        |        | 47,034 | 48,028 | 51,857 | 63,637 | 85,621 |
| <b>Peak Day Visitors</b>                      |        |        |        |        | 22,834 | 23,228 | 25,150 | 31,136 | 42,231 |

Table 2: CODC - Growth Projections Summary - Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | 7,750                            | 516.7             | 2.5%                   | 7,701                                | 592.4             | 2.1%                   | 10,889                              | 544.5             | 1.5%                   |
| <b>Total Dwellings</b>                        | 3,408                            | 227.2             | 2.2%                   | 3,704                                | 284.9             | 2.0%                   | 5,175                               | 258.7             | 1.4%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 3,900                                | 300.0             | 1.9%                   | 5,476                               | 273.8             | 1.3%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 3,704                                | 284.9             | 2.2%                   | 5,175                               | 258.7             | 1.5%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 15,609                               | 1,200.7           | 2.2%                   | 21,984                              | 1,099.2           | 1.5%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 7,908                                | 608.3             | 2.3%                   | 11,095                              | 554.8             | 1.5%                   |

### 3 Cromwell Ward

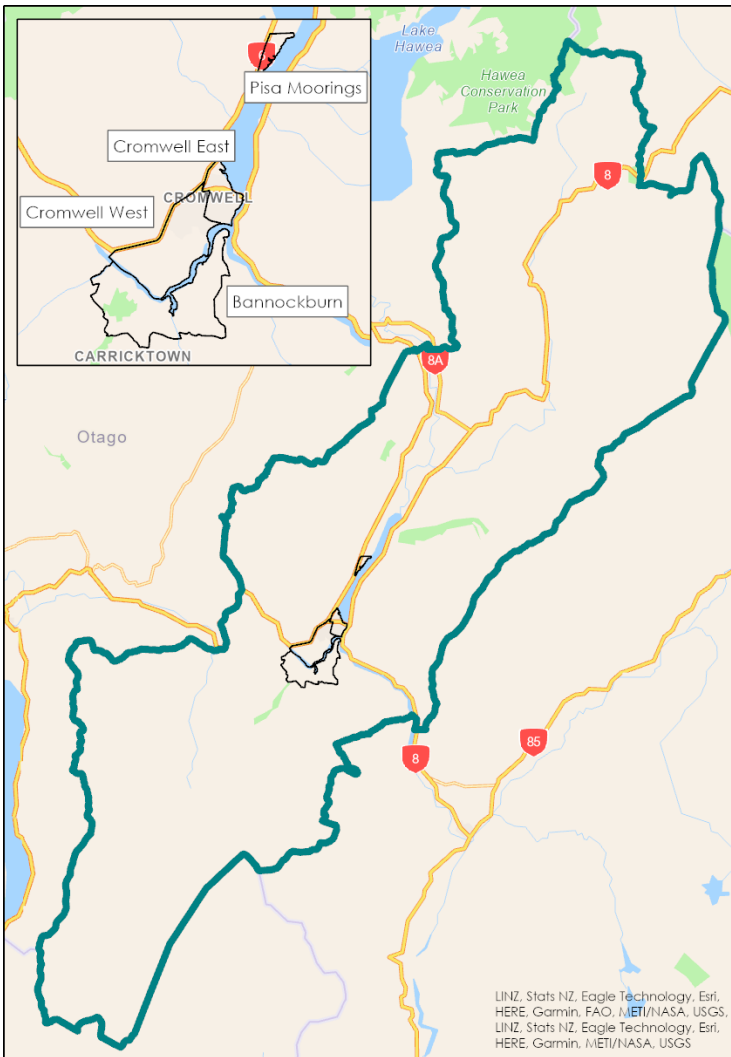


Figure 5: Area of Interest – Cromwell Ward

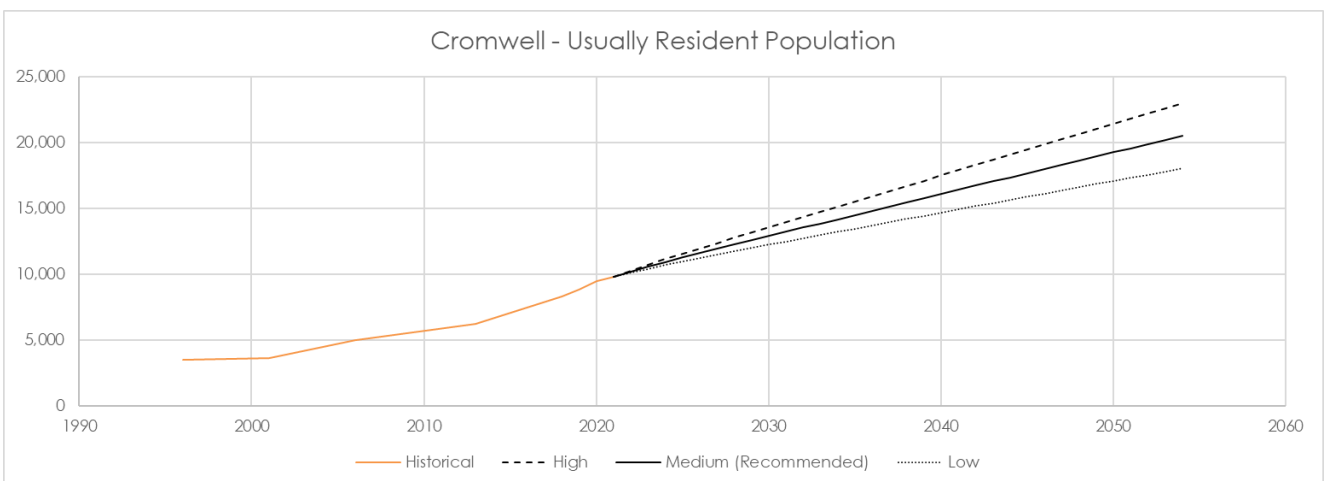


Figure 6: Cromwell Ward – Usually Resident Population

### 3.1.1 SUMMARY

Cromwell Ward's resident population has been growing at a higher rate than the rest of the district. Since 2013 the average annual growth rate has been 4.6%, which is 24% higher than the growth rate seen across the whole district.

The growth in this area has been driven by a steady rise in job opportunities since 2013, which has accelerated the last three years. The average annual growth rate in jobs since 2013 has been 6.8%, almost 6 times that of the other wards in the district. In 2021 Cromwell Ward overtook Vincent Ward as the ward with the most jobs in CODC. For reference, back in 2005 Vincent Ward had over double the job opportunities as Cromwell Ward. This strong growth has been primarily led by a thriving agriculture industry, which has seen an average annual growth rate of 21% the last three years and is well positioned as the dominating employment industry of the ward.

Migration into this ward has become more popular with young adults (25-34 years) in the last 3 years compared to 2013-2018.

The number of dwellings has also shown a growth rate higher than the rest of the district, at an annual average of 3.1%. As with other areas in the district, this lower growth in dwellings compared to population is coupled with an increase in the dwelling occupancy rate and the percentage of occupied dwellings.

Short term and long term indicators suggest the growth in this ward will continue to be higher than the rest of the district, although it will slow down in comparison to the growth shown since 2013.

### 3.1.2 OUTPUTS

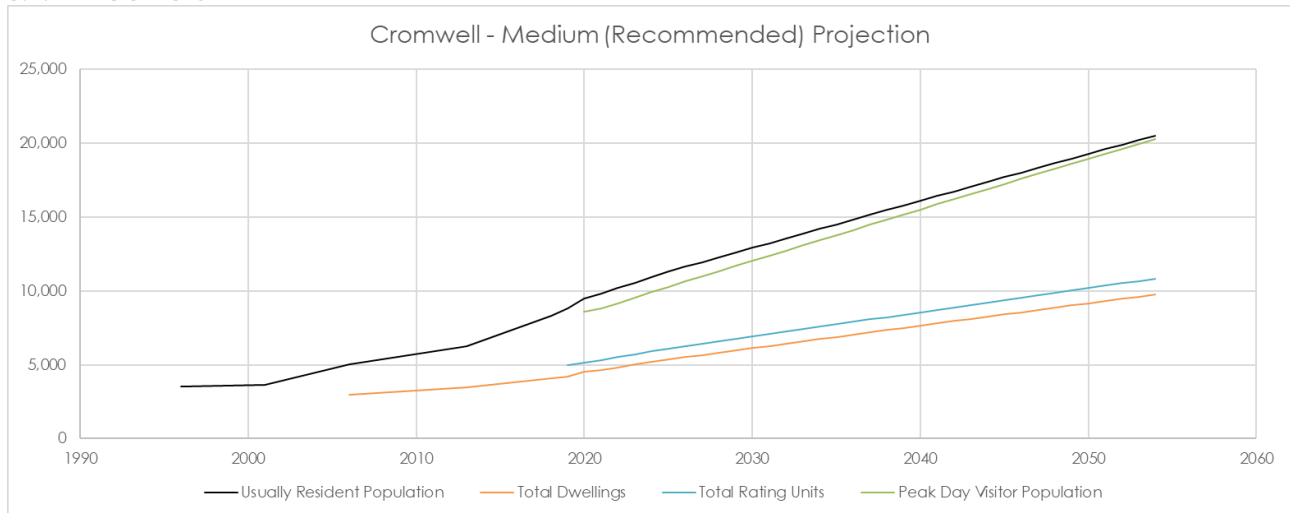


Figure 7: Cromwell Ward – Medium Projection

Table 3: Cromwell Ward - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006  | 2013  | 2018  | 2019  | 2020   | 2021   | 2024   | 2034   | 2054   |
|---|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| <b>Usually Resident Population</b>            | 5,020 | 6,250 | 8,310 | 8,840 | 9,470  | 9,840  | 10,941 | 14,202 | 20,522 |
| <b>Total Dwellings</b>                        | 2,970 | 3,453 | 4,074 | 4,227 | 4,519  | 4,664  | 5,188  | 6,743  | 9,756  |
| <b>Total Rating Units</b>                     |       |       |       | 4,960 | 5,149  | 5,340  | 5,901  | 7,578  | 10,836 |
| <b>Residential and Lifestyle Rating Units</b> |       | 3,225 | 3,954 | 4,095 | 4,350  | 4,496  | 5,020  | 6,574  | 9,588  |
| <b>Peak Day Population</b>                    |       |       |       |       | 18,064 | 18,649 | 20,857 | 27,640 | 40,798 |
| <b>Peak Day Visitors</b>                      |       |       |       |       | 8,594  | 8,809  | 9,916  | 13,438 | 20,276 |

Table 4: Cromwell Ward - Growth Projections Summary - Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | 4,820                            | 321.3             | 4.6%                   | 4,362                                | 335.6             | 2.9%                   | 6,320                               | 316.0             | 1.9%                   |
| <b>Total Dwellings</b>                        | 1,694                            | 112.9             | 3.1%                   | 2,078                                | 159.9             | 2.9%                   | 3,013                               | 150.7             | 1.9%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 2,238                                | 172.1             | 2.7%                   | 3,258                               | 162.9             | 1.8%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 2,078                                | 159.9             | 3.0%                   | 3,013                               | 150.7             | 1.9%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 8,991                                | 691.6             | 3.1%                   | 13,159                              | 657.9             | 2.0%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 4,629                                | 356.1             | 3.3%                   | 6,839                               | 341.9             | 2.1%                   |

### 3.2 Cromwell



Figure 8: Cromwell small urban area boundary

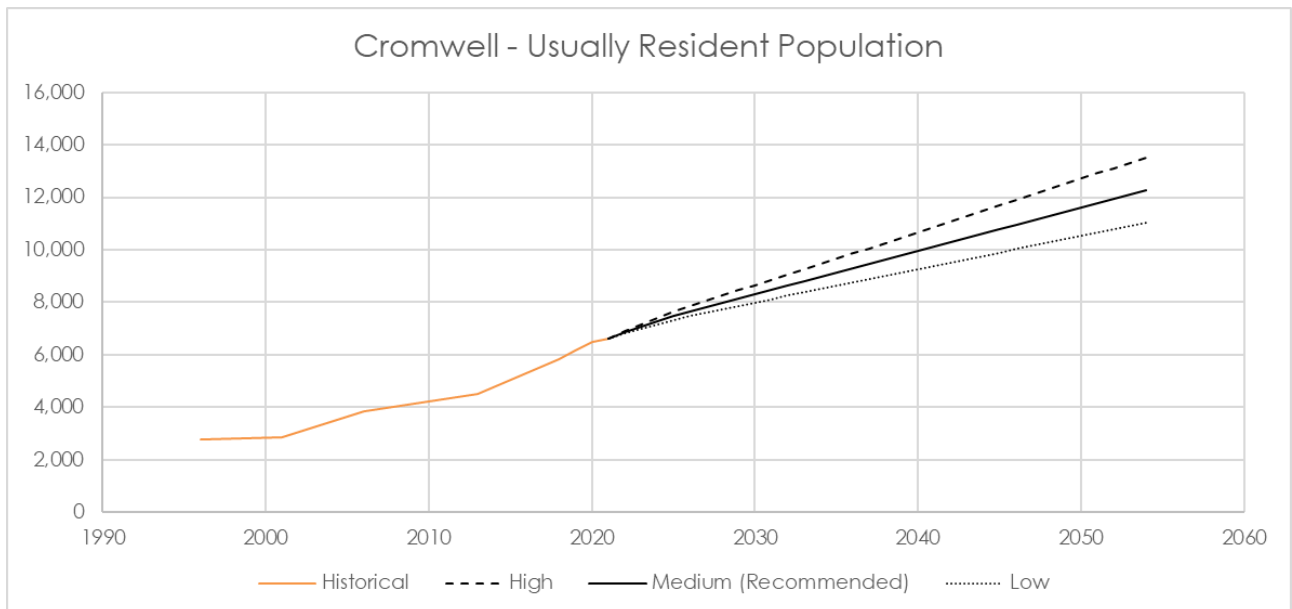


Figure 9: Cromwell – Usually Resident Population

### 3.2.1 SUMMARY

- Resident population has grown at an annual average of 3.7% in Cromwell, compared to 4.6% for the ward.
- The growth rate in Cromwell is in line with the district-level growth; that is, the town is growing at an average rate for the district.
- Growth is driven by employment opportunities in Cromwell and in the Lindis-Nevis Valley, as well as some spill-over population from Queenstown.
- Key recent industries driving growth for employment are retail and wholesale trade, as well as the healthcare sector. Construction continues to be Cromwell's most important industry but hasn't shown growth the last few years.
- Since 2013, net migration has been positive amongst almost all age groups. The area is attracting a large number of adults in their early stages of their career (25-34 years).

### 3.2.2 OUTPUTS

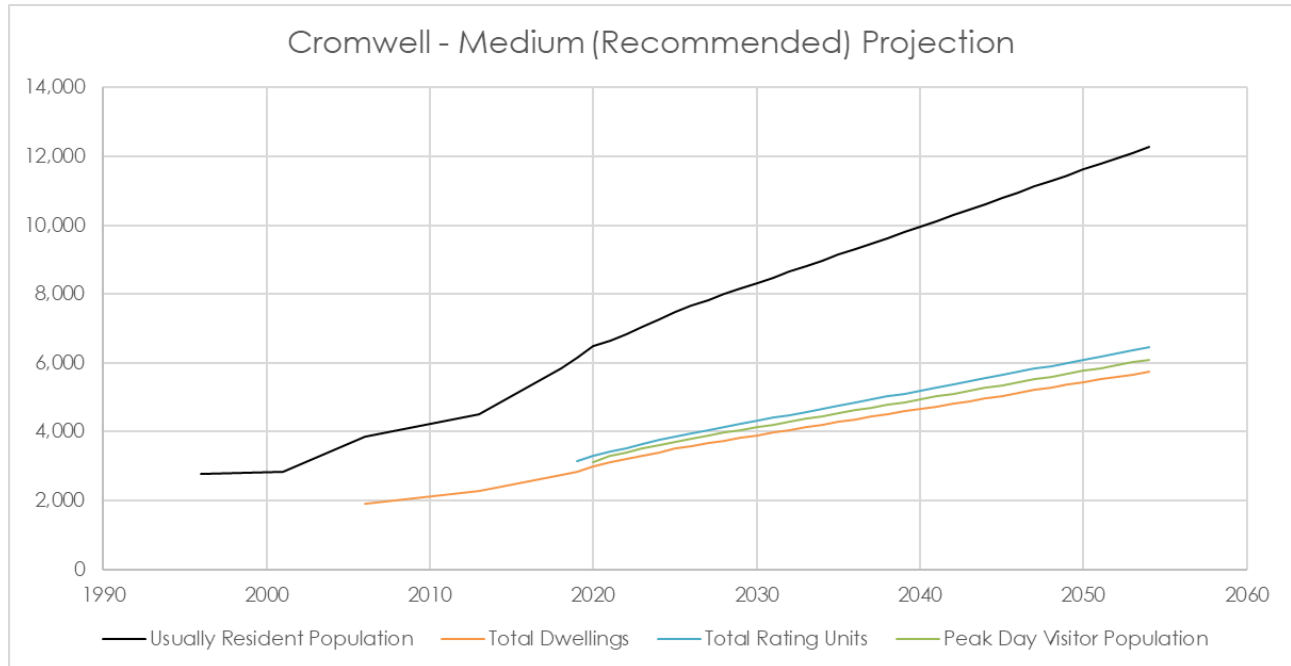


Figure 10: Cromwell – Medium Projection

Table 5: Cromwell – Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006  | 2013  | 2018  | 2019  | 2020  | 2021  | 2024   | 2034   | 2054   |
|---|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Usually Resident Population</b>            | 3,850 | 4,500 | 5,830 | 6,140 | 6,480 | 6,630 | 7,273  | 8,977  | 12,270 |
| <b>Total Dwellings</b>                        | 1,911 | 2,271 | 2,736 | 2,821 | 3,002 | 3,104 | 3,404  | 4,202  | 5,744  |
| <b>Total Rating Units</b>                     |       |       |       | 3,152 | 3,307 | 3,416 | 3,752  | 4,668  | 6,445  |
| <b>Residential and Lifestyle Rating Units</b> |       | 2,200 | 2,625 | 2,710 | 2,891 | 2,993 | 3,294  | 4,092  | 5,633  |
| <b>Peak Day Population</b>                    |       |       |       |       | 9,595 | 9,920 | 10,882 | 13,433 | 18,359 |
| <b>Peak Day Visitors</b>                      |       |       |       |       | 3,115 | 3,290 | 3,609  | 4,455  | 6,089  |



Table 6: Cromwell – Growth Projections Summary – Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | 2,780                            | 185.3             | 3.7%                   | 2,347                                | 180.6             | 2.4%                   | 3,292                               | 164.6             | 1.6%                   |
| <b>Total Dwellings</b>                        | 1,193                            | 79.5              | 3.3%                   | 1,099                                | 84.5              | 2.4%                   | 1,541                               | 77.1              | 1.6%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 1,252                                | 96.3              | 2.4%                   | 1,777                               | 88.8              | 1.6%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 1,099                                | 84.5              | 2.4%                   | 1,541                               | 77.1              | 1.6%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 3,512                                | 270.2             | 2.4%                   | 4,927                               | 246.3             | 1.6%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 1,165                                | 89.6              | 2.4%                   | 1,634                               | 81.7              | 1.6%                   |

### 3.3 Bannockburn

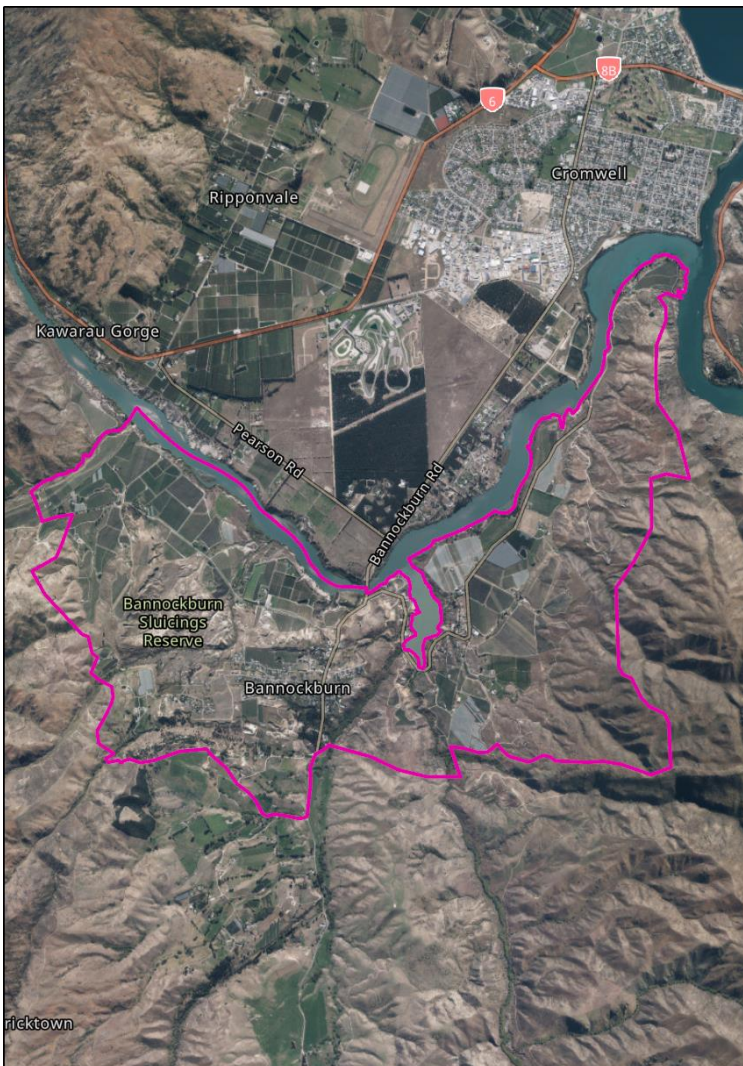


Figure 11: Bannockburn rural settlement boundary

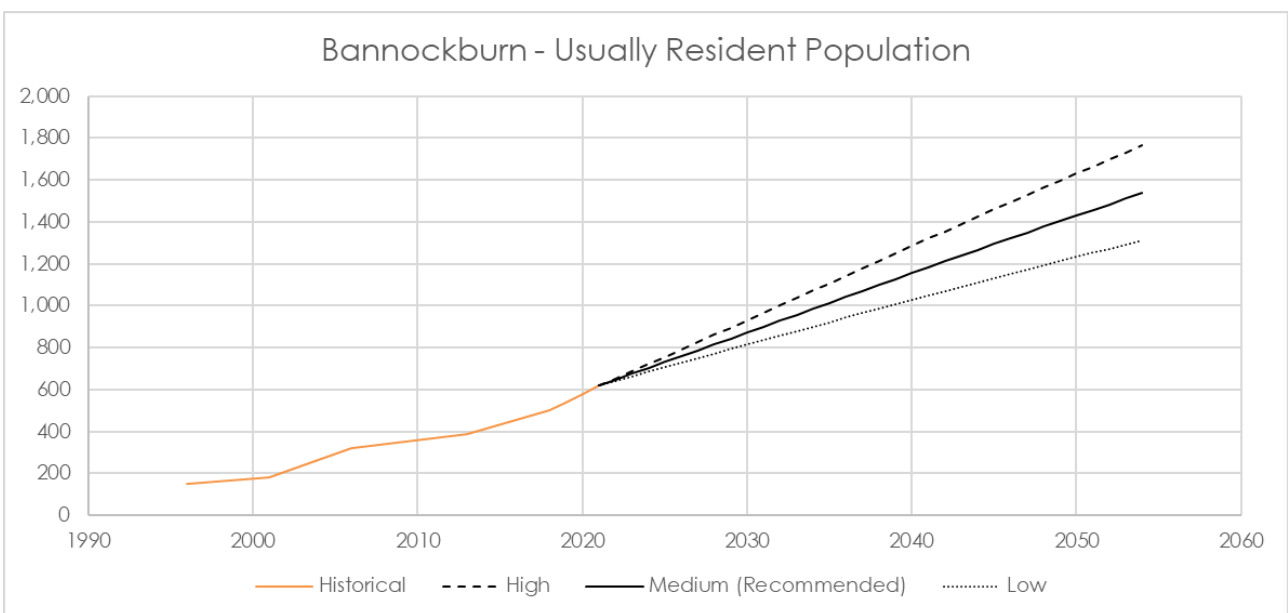


Figure 12: Bannockburn – Usually Resident Population

### 3.3.1 SUMMARY

- The growth rate of resident population in Bannockburn is higher than the district-wide levels.
- Short-term indicators suggest the number of dwellings will grow faster to meet the demand from the growing population.
- This area has high influence from visitors, with the peak day visitor population being over double the resident population.

### 3.3.2 OUTPUTS

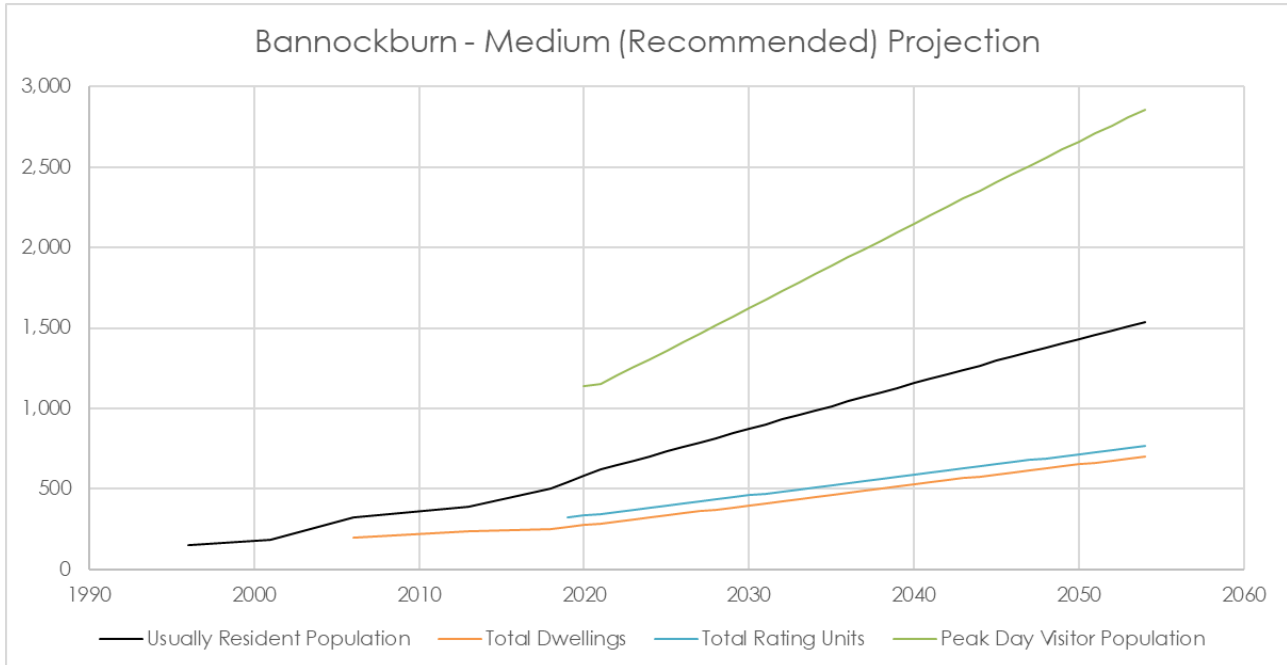


Figure 13: Bannockburn – Medium Projection

Table 7: Bannockburn - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006 | 2013 | 2018 | 2019 | 2020  | 2021  | 2024  | 2034  | 2054  |
|---|------|------|------|------|-------|-------|-------|-------|-------|
| <b>Usually Resident Population</b>            | 320  | 390  | 500  | 540  | 580   | 620   | 703   | 986   | 1,537 |
| <b>Total Dwellings</b>                        | 195  | 237  | 252  | 263  | 275   | 282   | 320   | 449   | 700   |
| <b>Total Rating Units</b>                     |      |      |      | 325  | 335   | 342   | 380   | 511   | 764   |
| <b>Residential and Lifestyle Rating Units</b> |      | 203  | 252  | 263  | 275   | 282   | 320   | 449   | 700   |
| <b>Peak Day Population</b>                    |      |      |      |      | 1,721 | 1,772 | 2,011 | 2,820 | 4,393 |
| <b>Peak Day Visitors</b>                      |      |      |      |      | 1,141 | 1,152 | 1,307 | 1,833 | 2,857 |

Table 8: Bannockburn - Growth Projections Summary - Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | 300                              | 20.0              | 4.5%                   | 366                                  | 28.2              | 3.6%                   | 550                                 | 27.5              | 2.2%                   |
| <b>Total Dwellings</b>                        | 87                               | 5.8               | 2.5%                   | 167                                  | 12.8              | 3.6%                   | 251                                 | 12.5              | 2.2%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 169                                  | 13.0              | 3.1%                   | 253                                 | 12.7              | 2.0%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 167                                  | 12.8              | 3.6%                   | 251                                 | 12.5              | 2.2%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 1,047                                | 80.6              | 3.6%                   | 1,574                               | 78.7              | 2.2%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 681                                  | 52.4              | 3.6%                   | 1,023                               | 51.2              | 2.2%                   |

### 3.4 Pisa Moorings



Figure 14: Pisa Moorings rural settlement boundary

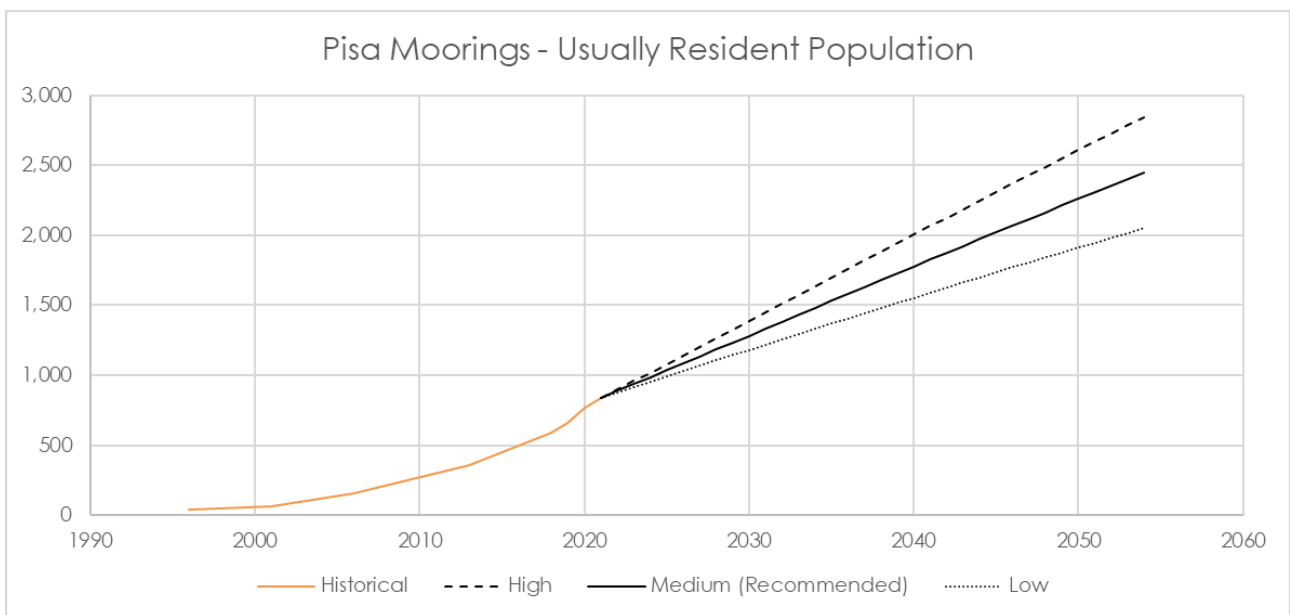


Figure 15: Pisa Moorings – Usually Resident Population

### 3.4.1 SUMMARY

- This township has seen very high growth rates since 2006. Resident population has grown at an annual average of 11.7%, while the number of dwellings at an annual average of 9.2%.
- Short and long-term indicators suggest growth will slow down compared to the last three years.
- Visitor population is relatively large in this town, with various commercial accommodation places available.

### 3.4.2 OUTPUTS

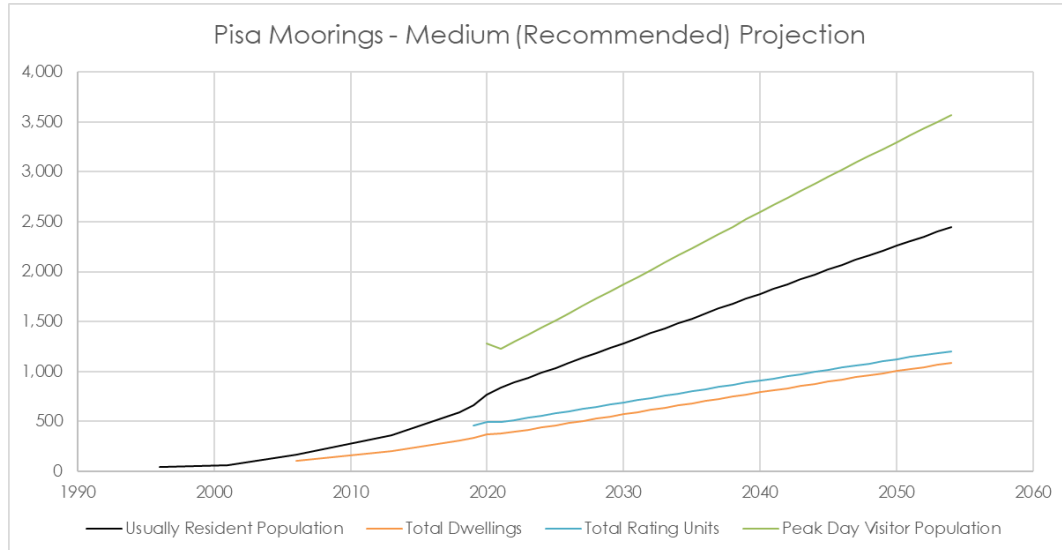


Figure 16: Pisa Moorings – Medium Projection

Table 9: Pisa Moorings - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006 | 2013 | 2018 | 2019 | 2020  | 2021  | 2024  | 2034  | 2054  |
|---|------|------|------|------|-------|-------|-------|-------|-------|
| <b>Usually Resident Population</b>            | 160  | 360  | 590  | 660  | 770   | 840   | 986   | 1,481 | 2,444 |
| <b>Total Dwellings</b>                        | 99   | 201  | 309  | 335  | 371   | 373   | 437   | 657   | 1,084 |
| <b>Total Rating Units</b>                     |      |      |      | 459  | 489   | 491   | 556   | 776   | 1,204 |
| <b>Residential and Lifestyle Rating Units</b> |      | 257  | 418  | 444  | 480   | 482   | 547   | 766   | 1,194 |
| <b>Peak Day Population</b>                    |      |      |      |      | 2,045 | 2,066 | 2,425 | 3,643 | 6,013 |
| <b>Peak Day Visitors</b>                      |      |      |      |      | 1,275 | 1,226 | 1,439 | 2,162 | 3,569 |

Table 10: Pisa Moorings - Growth Projections Summary - Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | 680                              | 45.3              | 11.7%                  | 641                                  | 49.3              | 4.5%                   | 963                                 | 48.2              | 2.5%                   |
| <b>Total Dwellings</b>                        | 274                              | 18.2              | 9.2%                   | 284                                  | 21.9              | 4.5%                   | 427                                 | 21.4              | 2.5%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 285                                  | 21.9              | 3.6%                   | 428                                 | 21.4              | 2.2%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 284                                  | 21.9              | 3.6%                   | 427                                 | 21.4              | 2.2%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 1,577                                | 121.3             | 4.5%                   | 2,370                               | 118.5             | 2.5%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 936                                  | 72.0              | 4.5%                   | 1,406                               | 70.3              | 2.5%                   |

## 4 Vincent Ward

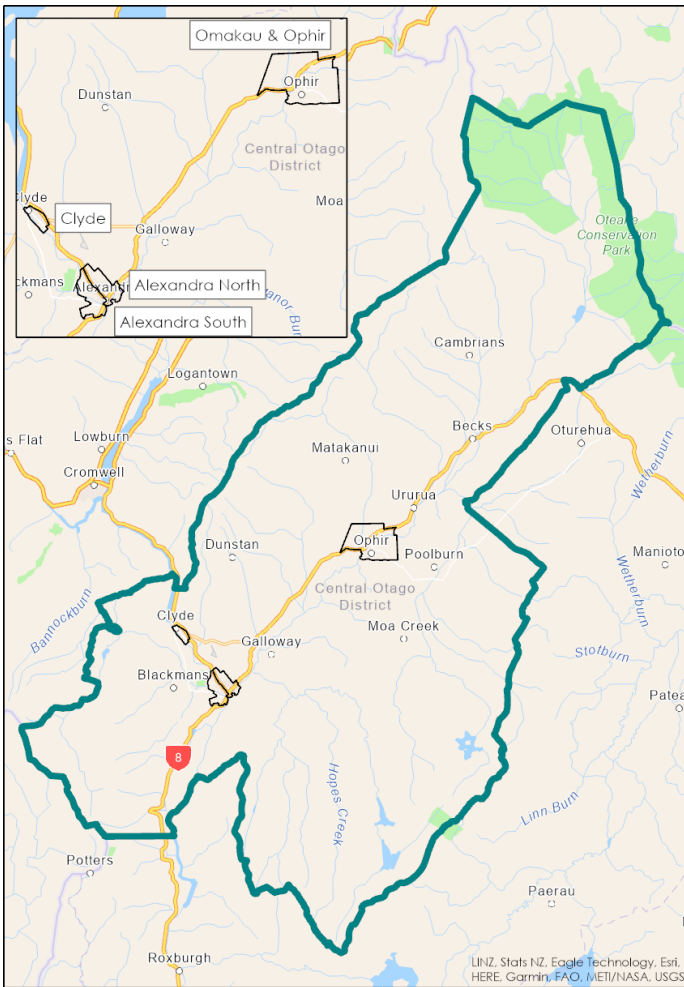


Figure 17: Area of Interest – Vincent Ward

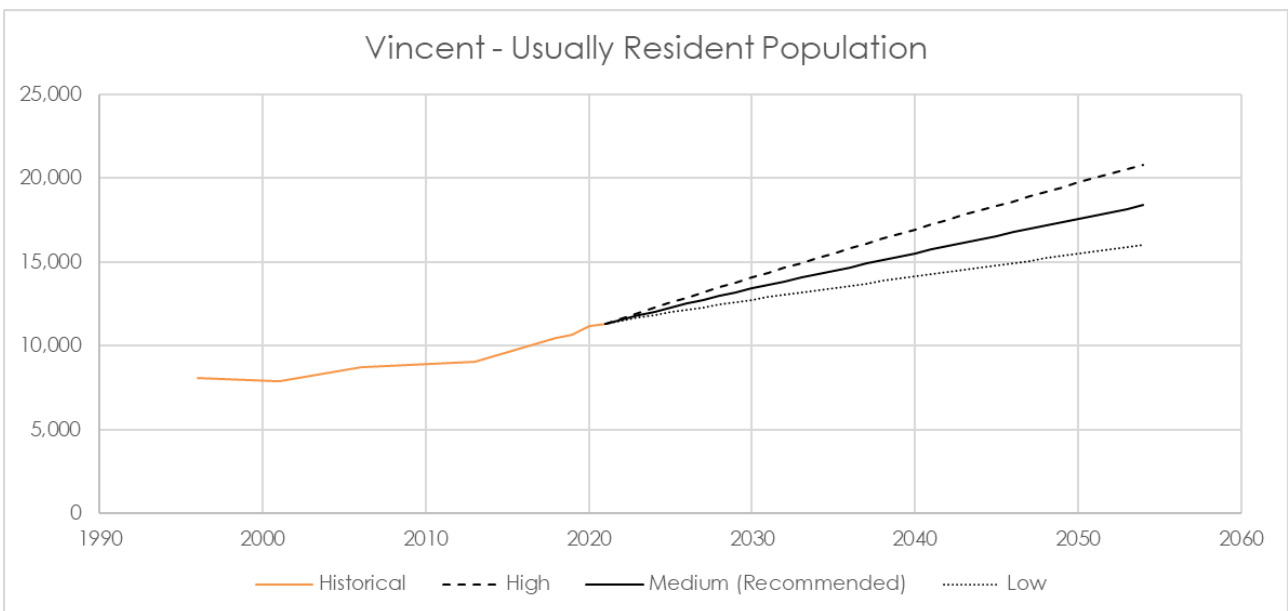


Figure 18: Vincent Ward – Usually Resident Population

#### 4.1.1 SUMMARY

This ward has shown a lower growth rate than the district-wide level, with an annual average growth rate in resident population of 1.8% since 2006. Prior to 2013, there was very little growth in this ward. Since then, the growth rate has slightly increased, a pattern similar to the rest of the district.

The growth in dwellings has been steadier, albeit still below the district-wide level. The dwelling occupancy rate has slightly increased since 2013, although it is still lower than that observed in 2006.

The relatively low growth across the ward is congruent with the trend of employment opportunities, which has shown slow growth since 2006 growing at an annual rate of 1.1%.

Short-term indicators suggest annual growth in the ward will accelerate in the near future before settling to a steady level in the long-term.

#### 4.1.2 OUTPUTS

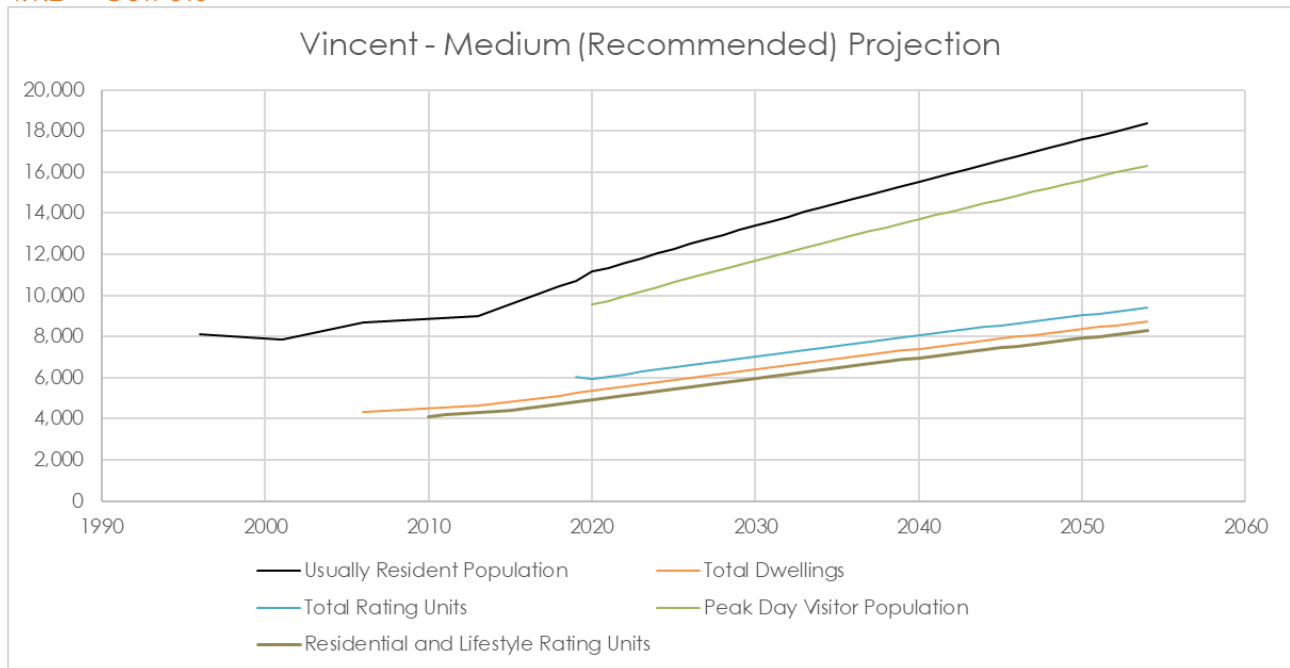


Figure 19: Vincent Ward – Medium Projection

Table 11: Vincent Ward - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006  | 2013  | 2018   | 2019   | 2020   | 2021   | 2024   | 2034   | 2054   |
|---|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| <b>Usually Resident Population</b>            | 8,710 | 9,020 | 10,430 | 10,680 | 11,170 | 11,330 | 12,041 | 14,261 | 18,365 |
| <b>Total Dwellings</b>                        | 4,332 | 4,668 | 5,121  | 5,247  | 5,384  | 5,452  | 5,787  | 6,828  | 8,728  |
| <b>Total Rating Units</b>                     |       |       |        | 6,041  | 5,962  | 6,052  | 6,395  | 7,459  | 9,405  |
| <b>Residential and Lifestyle Rating Units</b> |       | 4,319 | 4,734  | 4,849  | 4,938  | 5,007  | 5,343  | 6,383  | 8,283  |
| <b>Peak Day Population</b>                    |       |       |        |        | 20,738 | 21,072 | 22,460 | 26,785 | 34,690 |
| <b>Peak Day Visitors</b>                      |       |       |        |        | 9,568  | 9,742  | 10,419 | 12,524 | 16,324 |



Table 12: Vincent Ward - Growth Projections Summary – Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | 2,620                            | 174.7             | 1.8%                   | 2,931                                | 225.5             | 1.8%                   | 4,104                               | 205.2             | 1.3%                   |
| <b>Total Dwellings</b>                        | 1,120                            | 74.6              | 1.5%                   | 1,376                                | 105.9             | 1.7%                   | 1,900                               | 95.0              | 1.2%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 1,407                                | 108.2             | 1.6%                   | 1,946                               | 97.3              | 1.2%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 1,376                                | 105.9             | 1.9%                   | 1,900                               | 95.0              | 1.3%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 5,713                                | 439.5             | 1.9%                   | 7,905                               | 395.2             | 1.3%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 2,782                                | 214.0             | 2.0%                   | 3,801                               | 190.0             | 1.3%                   |

## 4.2 Alexandra

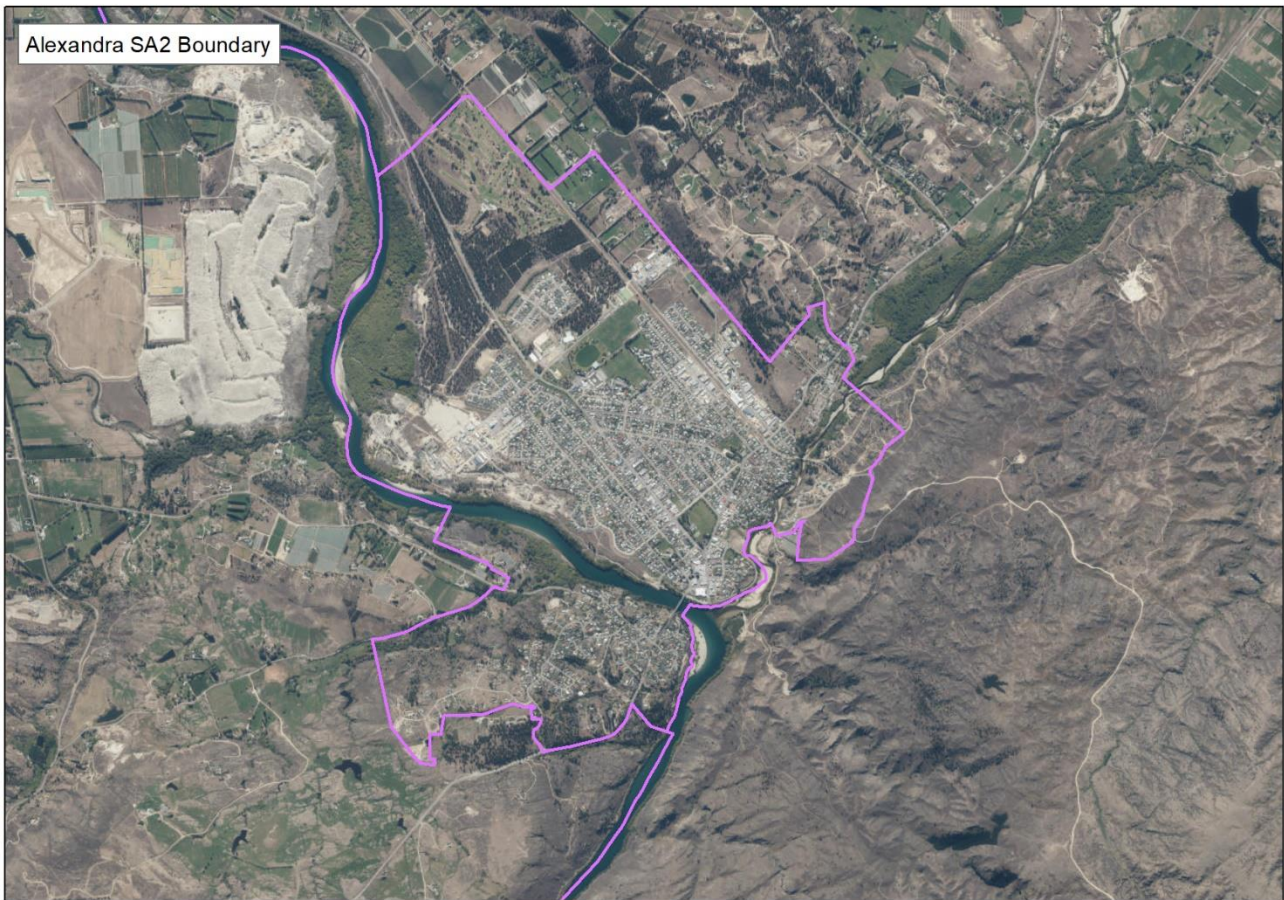


Figure 20: Alexandra small urban area boundary

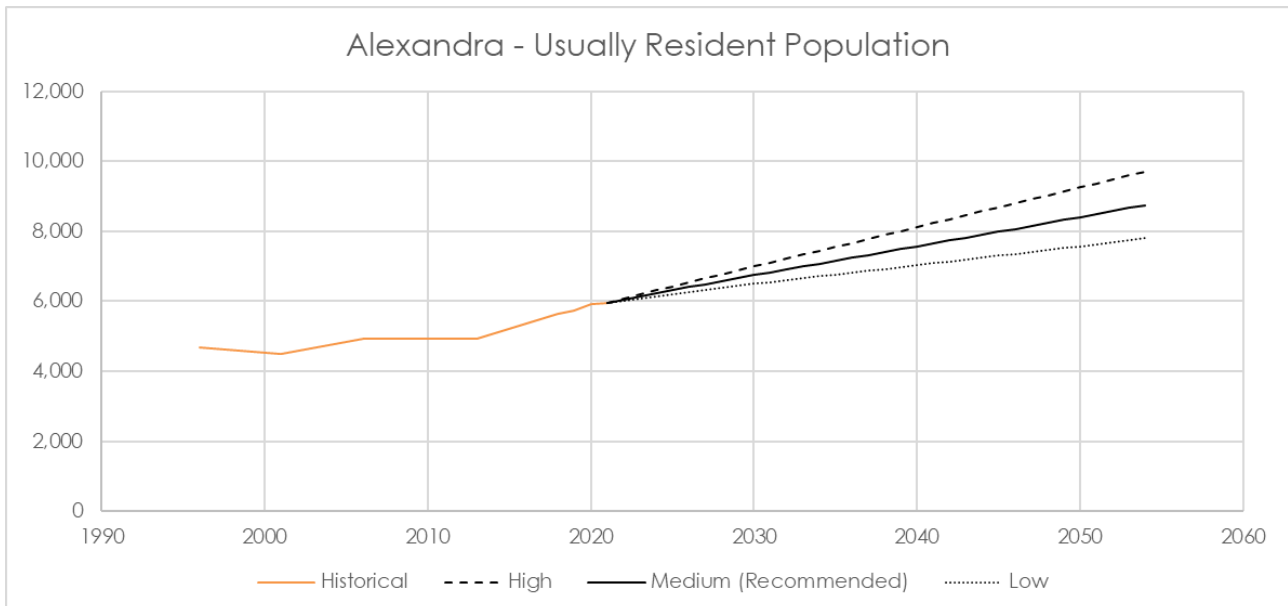


Figure 21: Alexandra – Usually Resident Population

#### 4.2.1 SUMMARY

- Growth pattern in line with that shown by Vincent Ward, although growth rates are even lower and suggest Alexandra is growing at a slow pace.
- Employment growth in this area similar to that of Vincent Ward, growing at an annual average rate of 1.1%.
- Migration into the area driven by job opportunities and lifestyle/retirement. Migration out is driven by young people leaving for education or career reasons, and older adults seeking better healthcare.
- There was a significant increase in migration of adults (25-39 years) with their kids into the area during the last three years compared to 2013-2018. There has also been a significant increase in 15-24 year-old people migrating out of the area in the past three years, likely driven by educational and career reasons.
- Short and long-term indicators suggest resident population growth will slow down compared to the last 8 years, while dwelling growth is expected to remain steadier.

#### 4.2.2 OUTPUTS

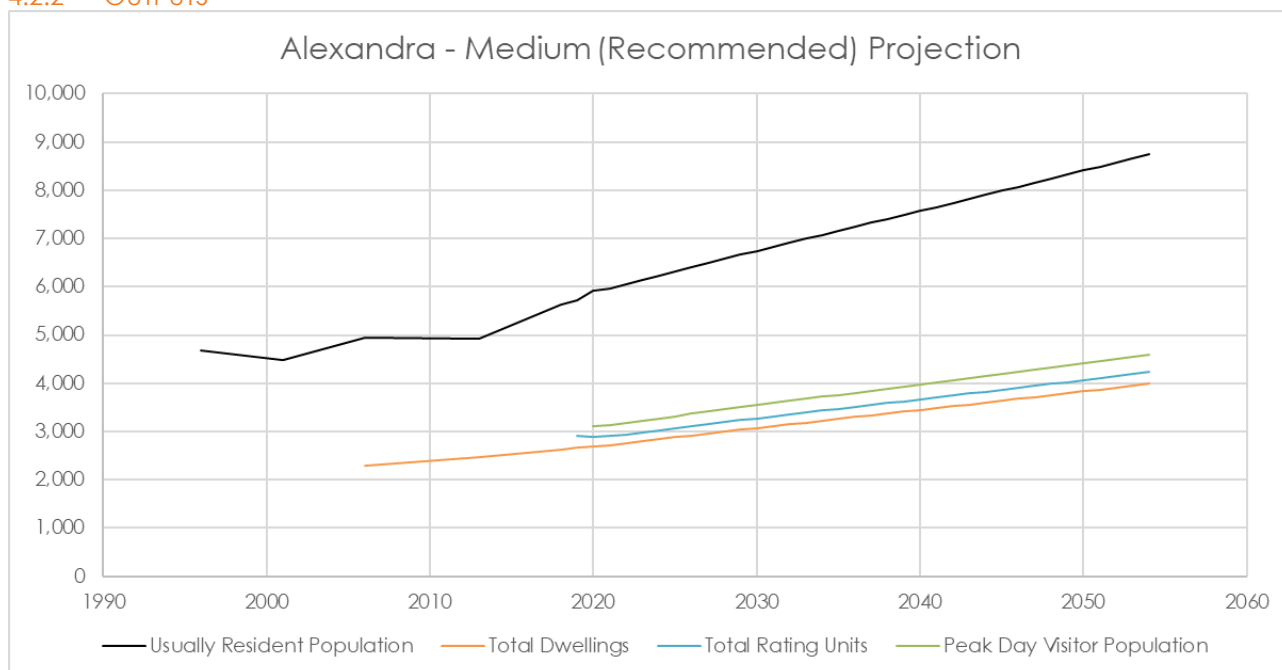


Figure 22: Alexandra – Medium Projection

Table 13: Alexandra - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006  | 2013  | 2018  | 2019  | 2020  | 2021  | 2024  | 2034   | 2054   |
|---|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Usually Resident Population</b>            | 4,940 | 4,920 | 5,630 | 5,720 | 5,910 | 5,960 | 6,229 | 7,076  | 8,744  |
| <b>Total Dwellings</b>                        | 2,301 | 2,463 | 2,631 | 2,675 | 2,697 | 2,715 | 2,838 | 3,224  | 3,983  |
| <b>Total Rating Units</b>                     |       |       |       | 2,900 | 2,878 | 2,900 | 3,028 | 3,432  | 4,227  |
| <b>Residential and Lifestyle Rating Units</b> |       | 2,347 | 2,502 | 2,546 | 2,568 | 2,586 | 2,709 | 3,095  | 3,854  |
| <b>Peak Day Population</b>                    |       |       |       |       | 9,023 | 9,091 | 9,502 | 10,794 | 13,339 |
| <b>Peak Day Visitors</b>                      |       |       |       |       | 3,113 | 3,131 | 3,273 | 3,718  | 4,594  |

Table 14: Alexandra - Growth Projections Summary – Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | 1,020                            | 68.0              | 1.3%                   | 1,116                                | 85.9              | 1.3%                   | 1,668                               | 83.4              | 1.1%                   |
| <b>Total Dwellings</b>                        | 414                              | 27.6              | 1.1%                   | 509                                  | 39.1              | 1.3%                   | 760                                 | 38.0              | 1.1%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 532                                  | 40.9              | 1.3%                   | 795                                 | 39.8              | 1.0%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 509                                  | 39.1              | 1.4%                   | 760                                 | 38.0              | 1.1%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 1,703                                | 131.0             | 1.3%                   | 2,544                               | 127.2             | 1.1%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 587                                  | 45.1              | 1.3%                   | 876                                 | 43.8              | 1.1%                   |

### 4.3 Clyde



Figure 23: Clyde rural settlement boundary

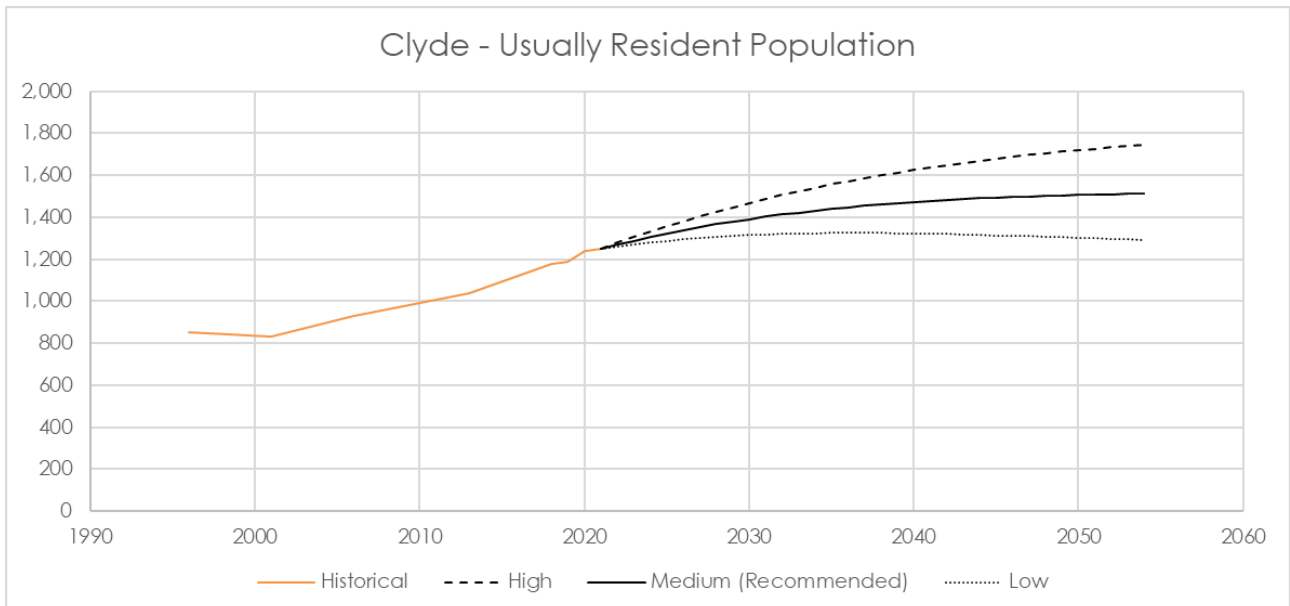


Figure 24: Clyde – Usually Resident Population

### 4.3.1 SUMMARY

- Steady population growth since 2001. Growth slightly lower than that of the whole district.
- Very high influence of visitors; peak day visitor population significantly higher than resident population.
- Migration in driven by lifestyle/retirement reasons and commuting to work into Alexandra or Cromwell. Migration out driven by young people leaving for education or career reasons, and older adults seeking better healthcare.
- Increase in migration of adults (25-49 years old) into the area during the last three years.
- Growth in resident population and dwellings expected to slow down over the short-term, and even more over the long-term. This is driven by a projected plateauing of employment opportunities.

### 4.3.2 OUTPUTS

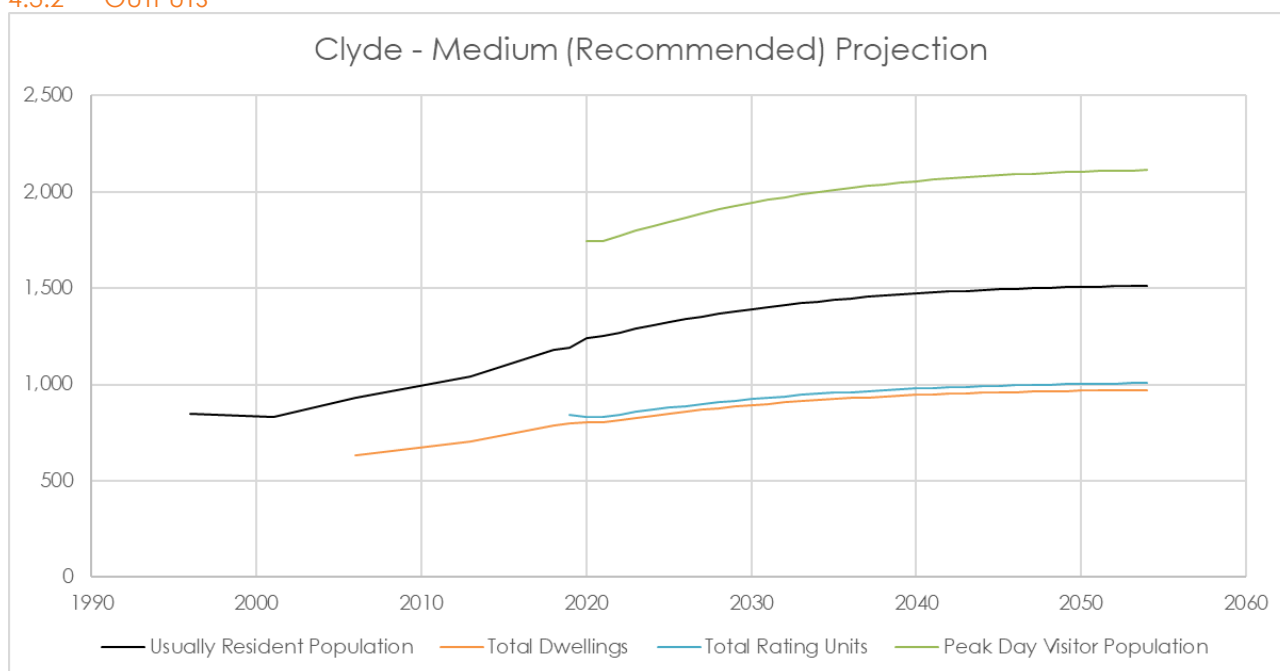


Figure 25: Clyde – Medium Projection

Table 15: Clyde - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006 | 2013  | 2018  | 2019  | 2020  | 2021  | 2024  | 2034  | 2054  |
|---|------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Usually Resident Population</b>            | 930  | 1,040 | 1,180 | 1,190 | 1,240 | 1,250 | 1,305 | 1,431 | 1,513 |
| <b>Total Dwellings</b>                        | 633  | 702   | 786   | 799   | 801   | 802   | 838   | 919   | 971   |
| <b>Total Rating Units</b>                     |      |       |       | 841   | 831   | 832   | 868   | 951   | 1,007 |
| <b>Residential and Lifestyle Rating Units</b> |      | 686   | 767   | 780   | 782   | 783   | 819   | 899   | 952   |
| <b>Peak Day Population</b>                    |      |       |       |       | 2,983 | 2,995 | 3,128 | 3,430 | 3,625 |
| <b>Peak Day Visitors</b>                      |      |       |       |       | 1,743 | 1,745 | 1,823 | 1,998 | 2,112 |

Table 16: Clyde - Growth Projections Summary – Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | 320                              | 21.3              | 2.0%                   | 181                                  | 14.0              | 1.0%                   | 82                                  | 4.1               | 0.3%                   |
| <b>Total Dwellings</b>                        | 169                              | 11.3              | 1.6%                   | 116                                  | 9.0               | 1.0%                   | 52                                  | 2.6               | 0.3%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 119                                  | 9.1               | 1.0%                   | 56                                  | 2.8               | 0.3%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 116                                  | 9.0               | 1.1%                   | 52                                  | 2.6               | 0.3%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 435                                  | 33.4              | 1.0%                   | 196                                 | 9.8               | 0.3%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 253                                  | 19.5              | 1.0%                   | 114                                 | 5.7               | 0.3%                   |

## 4.4 Omakau & Ophir

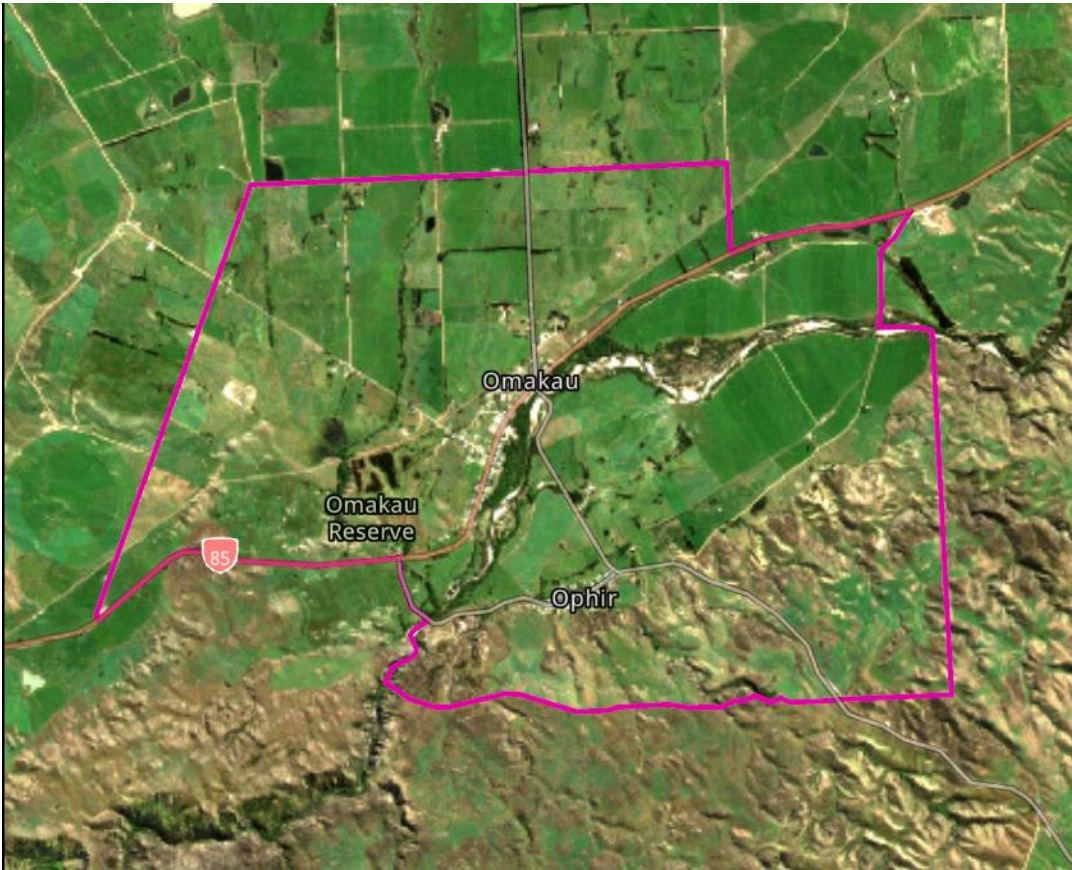


Figure 26: Omakau rural settlement boundary

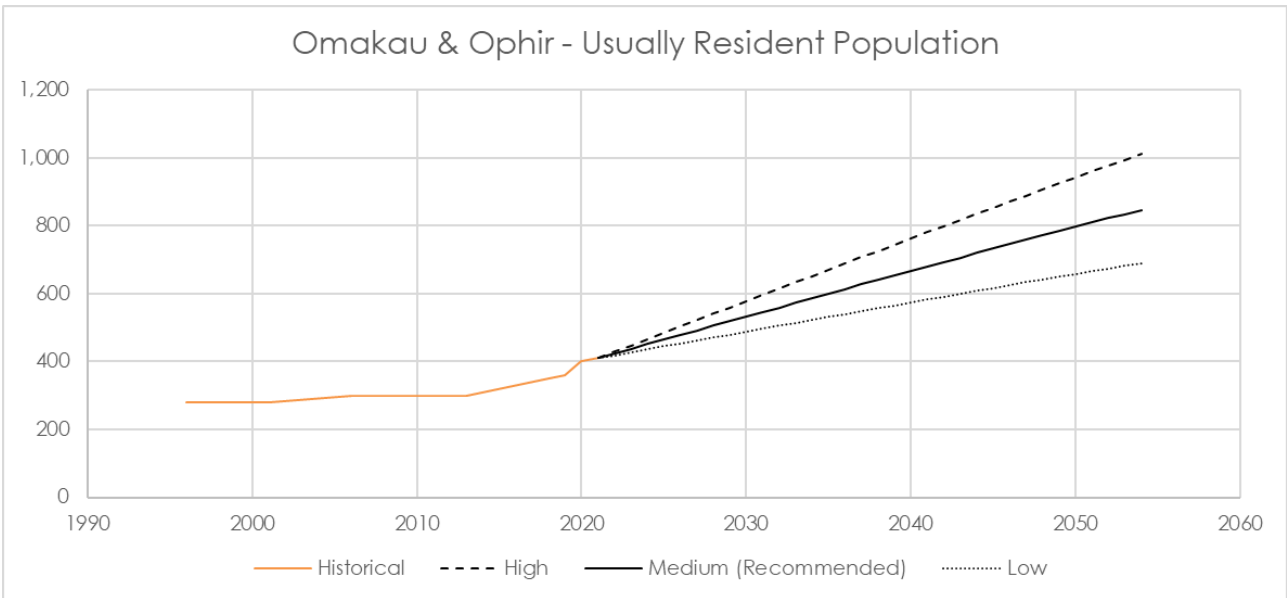


Figure 27: Omakau & Ophir – Usually Resident Population

### 4.4.1 SUMMARY

- Resident population growth slightly lower than the district level but higher than the ward level, with an average annual growth of 2.1% since 2006, and 4% since 2013.
- Peak day visitor population exceeds resident population.
- Short and long-term indicators suggest growth will remain steady at the rate seen since 2013.



#### 4.4.2 OUTPUTS

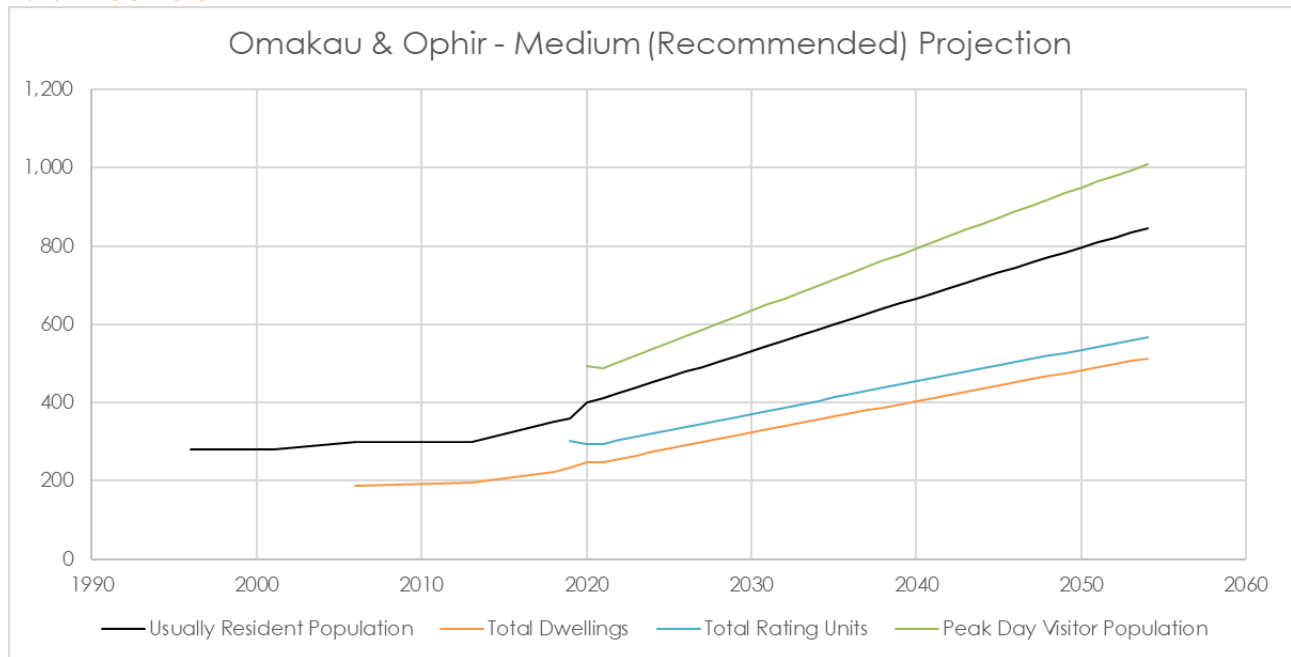


Figure 28: Omakau & Ophir – Medium Projection

Table 17: Omakau & Ophir - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006 | 2013 | 2018 | 2019 | 2020 | 2021 | 2024 | 2034  | 2054  |
|---|------|------|------|------|------|------|------|-------|-------|
| <b>Usually Resident Population</b>            | 300  | 300  | 350  | 360  | 400  | 410  | 451  | 586   | 846   |
| <b>Total Dwellings</b>                        | 186  | 195  | 222  | 235  | 249  | 249  | 273  | 355   | 513   |
| <b>Total Rating Units</b>                     |      |      |      | 303  | 295  | 295  | 320  | 404   | 566   |
| <b>Residential and Lifestyle Rating Units</b> |      | 183  | 216  | 229  | 243  | 243  | 268  | 350   | 507   |
| <b>Peak Day Population</b>                    |      |      |      |      | 894  | 899  | 988  | 1,285 | 1,854 |
| <b>Peak Day Visitors</b>                      |      |      |      |      | 494  | 489  | 537  | 699   | 1,008 |

Table 18: Omakau & Ophir - Growth Projections Summary – Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | 110                              | 7.3               | 2.1%                   | 176                                  | 13.6              | 2.8%                   | 260                                 | 13.0              | 1.9%                   |
| <b>Total Dwellings</b>                        | 63                               | 4.2               | 2.0%                   | 107                                  | 8.2               | 2.8%                   | 158                                 | 7.9               | 1.9%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 109                                  | 8.4               | 2.5%                   | 161                                 | 8.1               | 1.7%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 107                                  | 8.2               | 2.8%                   | 158                                 | 7.9               | 1.9%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 386                                  | 29.7              | 2.8%                   | 570                                 | 28.5              | 1.9%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 210                                  | 16.1              | 2.8%                   | 310                                 | 15.5              | 1.9%                   |

## 5 Teviot Ward

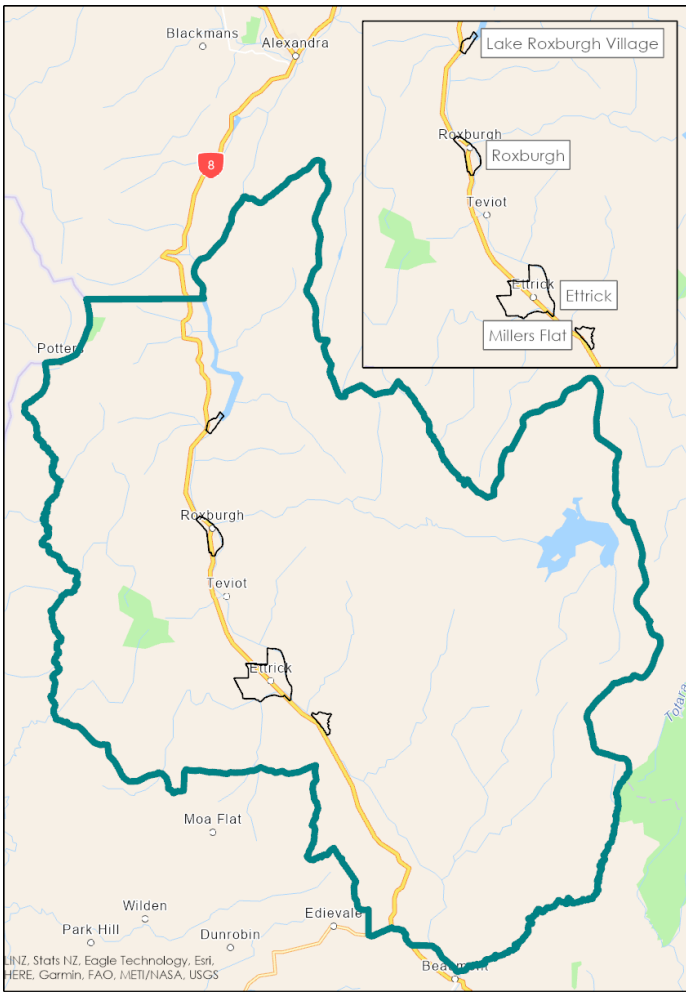


Figure 29: Area of Interest – Teviot Ward

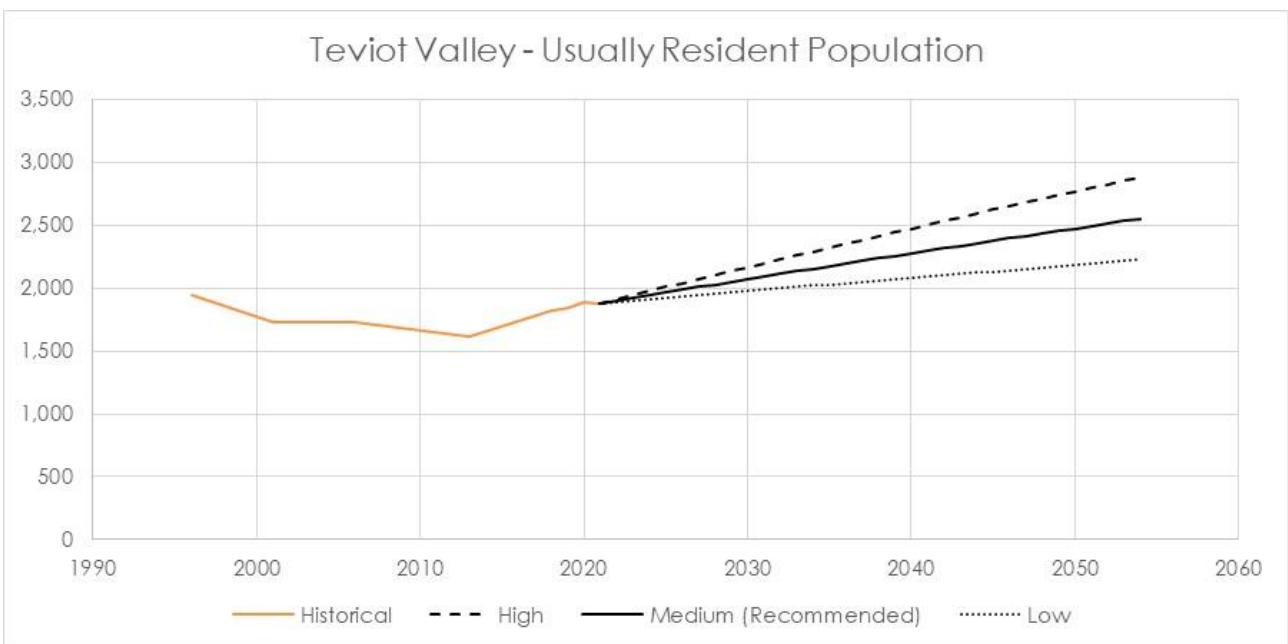


Figure 30: Teviot Valley – Usually Resident Population

### 5.1.1 SUMMARY

Since 2013, Teviot has experienced steady population growth, albeit at a slower rate than the rest of the district. This is contrary to local employment opportunities (driven by the agriculture and horticulture industries) which have remained unchanged.

The northern end of Teviot, which contains Roxburgh and Lake Roxburgh Village, is within commuting distance of Alexandra, while providing relatively affordable housing. This affordable alternative has attracted young workers in their 20s and 30s. At the 2018 Census, approximately 10% of workers who lived in Teviot commuted to Alexandra.

The southern portion of Teviot is further removed from employment hubs but provides an opportunity for those seeking a rural early/semi-retirement.

From 2013 to 2018, there has been minimal growth in dwellings, however the rate of dwelling occupancy has been increasing. It is likely that dwelling occupancies have reached an equilibrium, and population growth is starting to drive growth in dwellings.

Longer term growth in Teviot is dependent on continuing growth and employment opportunities in Alexandra.

### 5.1.2 OUTPUTS

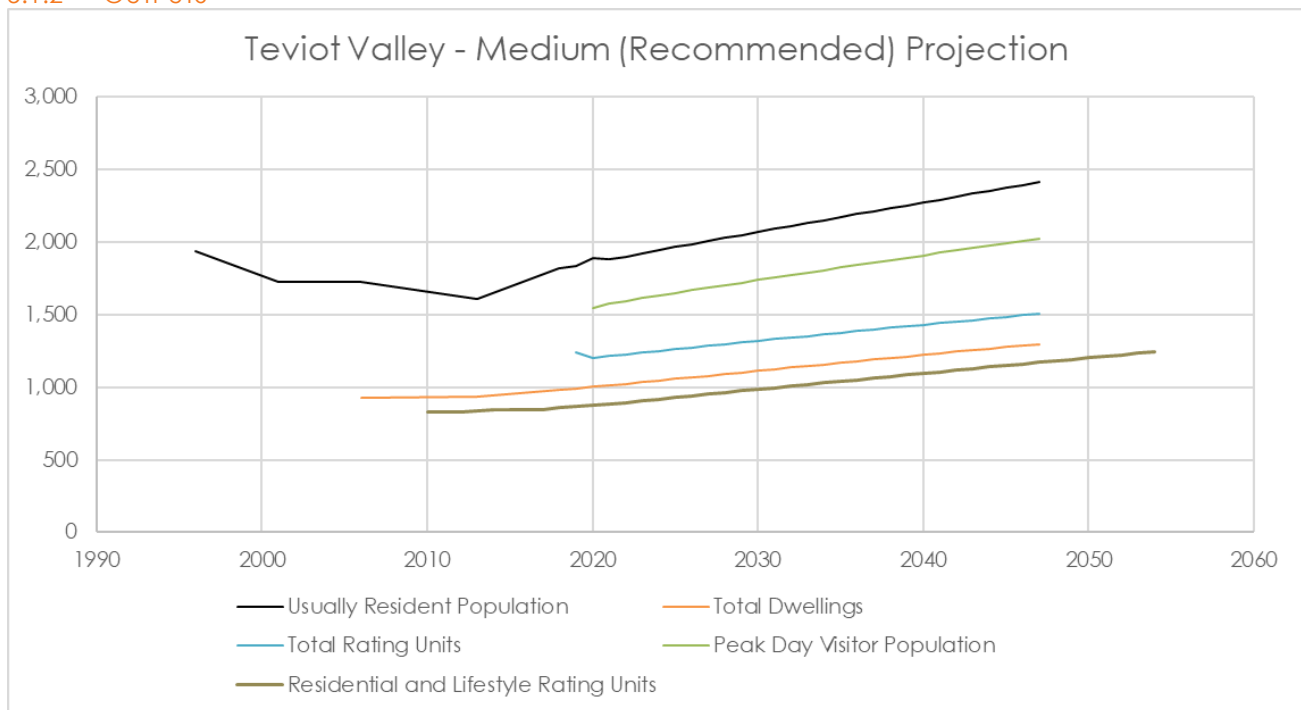


Figure 31: Teviot Valley - Growth Projections Outputs

Table 19: Teviot Valley - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006  | 2013  | 2018  | 2019  | 2020  | 2021  | 2024  | 2034  | 2054  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Usually Resident Population</b>            | 1,730 | 1,610 | 1,820 | 1,840 | 1,890 | 1,880 | 1,945 | 2,153 | 2,548 |
| <b>Total Dwellings</b>                        | 924   | 936   | 984   | 992   | 1,004 | 1,011 | 1,046 | 1,158 | 1,371 |
| <b>Total Rating Units</b>                     |       |       |       | 1,237 | 1,201 | 1,217 | 1,252 | 1,365 | 1,580 |
| <b>Residential and Lifestyle Rating Units</b> |       | 839   | 858   | 867   | 877   | 884   | 919   | 1,031 | 1,244 |
| <b>Peak Day Population</b>                    |       |       |       |       | 3,433 | 3,459 | 3,578 | 3,960 | 4,688 |
| <b>Peak Day Visitors</b>                      |       |       |       |       | 1,543 | 1,579 | 1,633 | 1,808 | 2,140 |

Table 20: Teviot Valley - Growth Projections Summary - Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | 150                              | 10.0              | 0.6%                   | 273                                  | 21.0              | 1.0%                   | 396                                 | 19.8              | 0.8%                   |
| <b>Total Dwellings</b>                        | 87                               | 5.8               | 0.6%                   | 147                                  | 11.3              | 1.0%                   | 213                                 | 10.6              | 0.8%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 148                                  | 11.4              | 0.9%                   | 215                                 | 10.8              | 0.7%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 147                                  | 11.3              | 1.2%                   | 213                                 | 10.6              | 0.9%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 502                                  | 38.6              | 1.0%                   | 728                                 | 36.4              | 0.8%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 229                                  | 17.6              | 1.0%                   | 332                                 | 16.6              | 0.8%                   |

## 5.2 Roxburgh

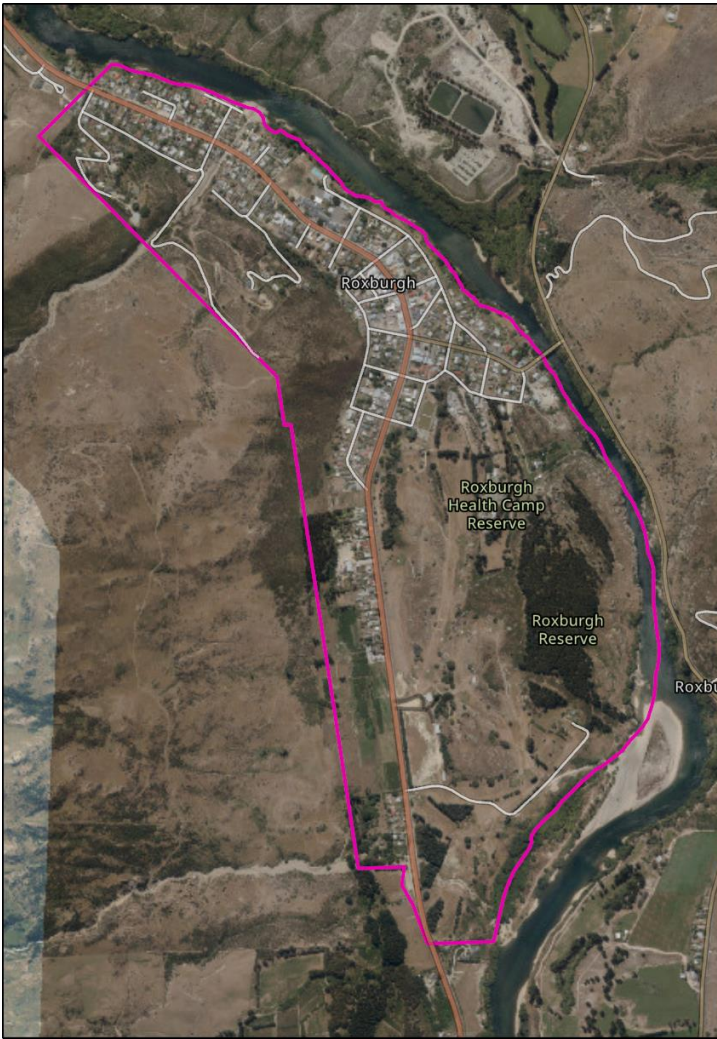


Figure 32: Roxburgh rural settlement boundary

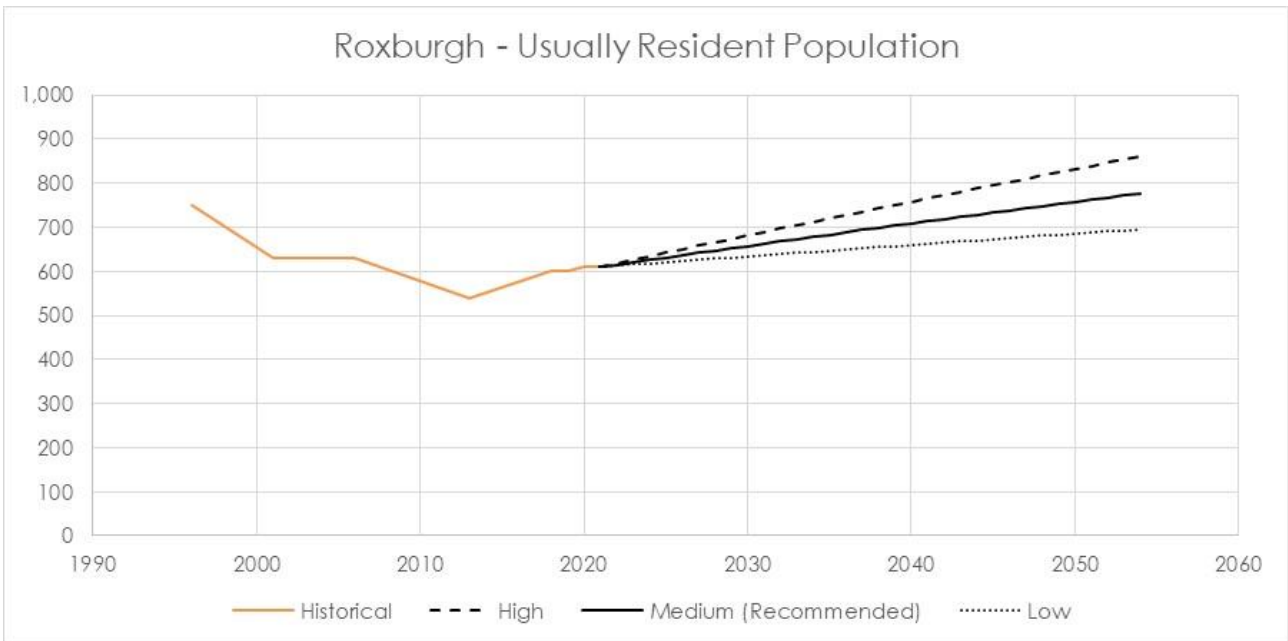


Figure 33: Roxburgh - Usually Resident Population

### 5.2.1 SUMMARY

- Steady decline in resident population until 2013, some modest growth after that.
- Population growth driven by people working in Alexandra and commuting.
- Unoccupied dwellings starting to become occupied and new dwellings being built to service growth.

### 5.2.2 OUTPUTS

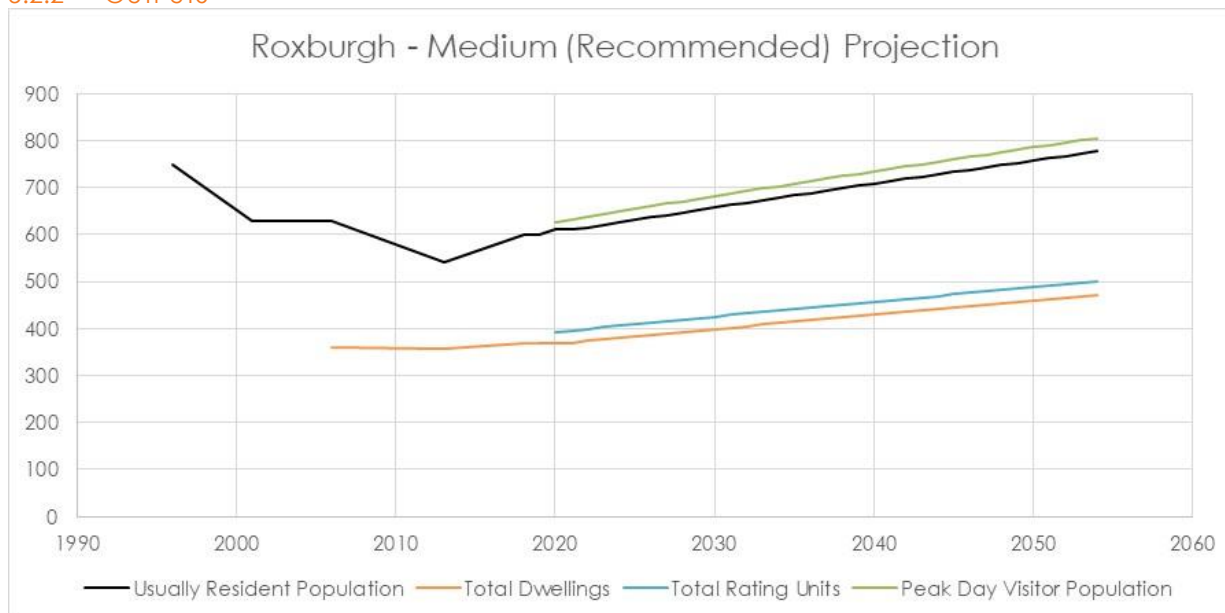


Figure 34: Roxburgh - Growth Projections Outputs

Table 21: Roxburgh - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006 | 2013 | 2018 | 2019 | 2020  | 2021  | 2024  | 2034  | 2054  |
|---|------|------|------|------|-------|-------|-------|-------|-------|
| <b>Usually Resident Population</b>            | 630  | 540  | 600  | 600  | 610   | 610   | 626   | 678   | 777   |
| <b>Total Dwellings</b>                        | 360  | 357  | 369  | 369  | 368   | 370   | 380   | 411   | 471   |
| <b>Total Rating Units</b>                     |      |      |      | 401  | 392   | 396   | 406   | 438   | 500   |
| <b>Residential and Lifestyle Rating Units</b> |      | 334  | 337  | 337  | 336   | 338   | 348   | 379   | 439   |
| <b>Peak Day Population</b>                    |      |      |      |      | 1,235 | 1,242 | 1,275 | 1,381 | 1,583 |
| <b>Peak Day Visitors</b>                      |      |      |      |      | 625   | 632   | 649   | 703   | 806   |

Table 22: Roxburgh - Growth Projections Summary – Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | -20                              | -1.3              | -0.2%                  | 68                                   | 5.2               | 0.8%                   | 99                                  | 4.9               | 0.7%                   |
| <b>Total Dwellings</b>                        | 10                               | 0.7               | 0.2%                   | 41                                   | 3.2               | 0.8%                   | 60                                  | 3.0               | 0.7%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 42                                   | 3.3               | 0.8%                   | 61                                  | 3.1               | 0.7%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 41                                   | 3.2               | 0.9%                   | 60                                  | 3.0               | 0.7%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 139                                  | 10.7              | 0.8%                   | 202                                 | 10.1              | 0.7%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 71                                   | 5.4               | 0.8%                   | 103                                 | 5.1               | 0.7%                   |

### 5.3 Lake Roxburgh Village



Figure 35: Lake Roxburgh Village rural settlement boundary

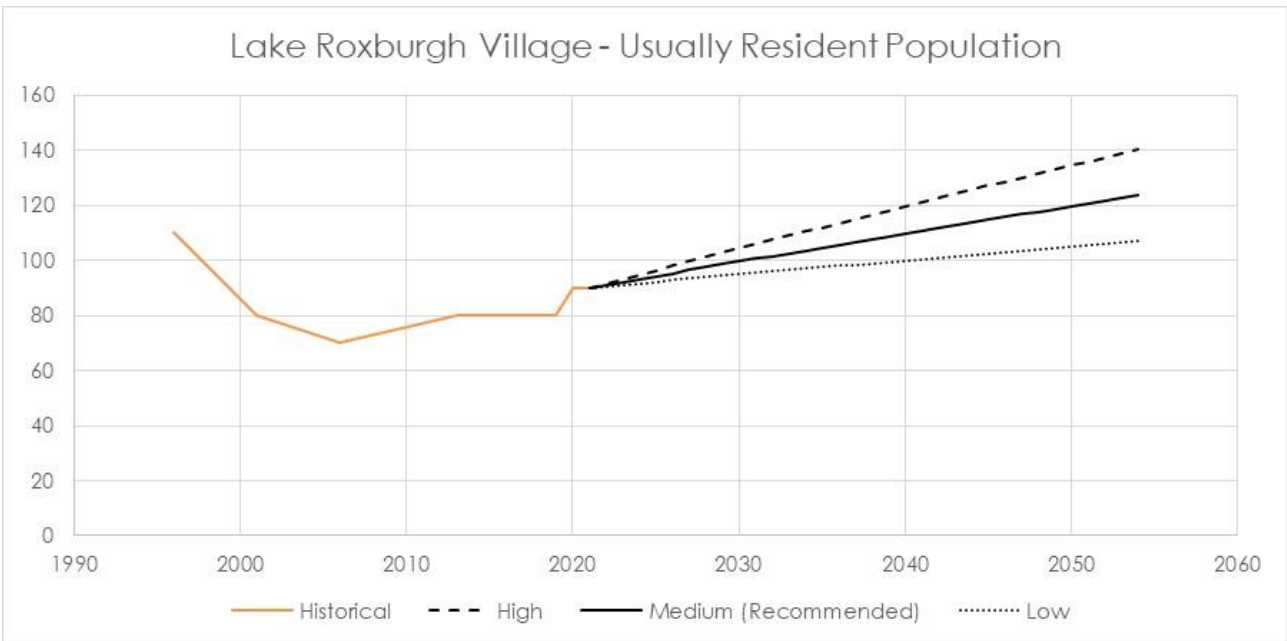


Figure 36: Lake Roxburgh Village - Usually Resident Population

### 5.3.1 SUMMARY

- Population growth driven by people working in Alexandra and commuting.
- Unoccupied dwellings starting to become occupied and new dwellings being built to service growth.
- Lake Roxburgh Village might be constrained but this assessment is for unconstrained demand.

### 5.3.2 OUTPUTS

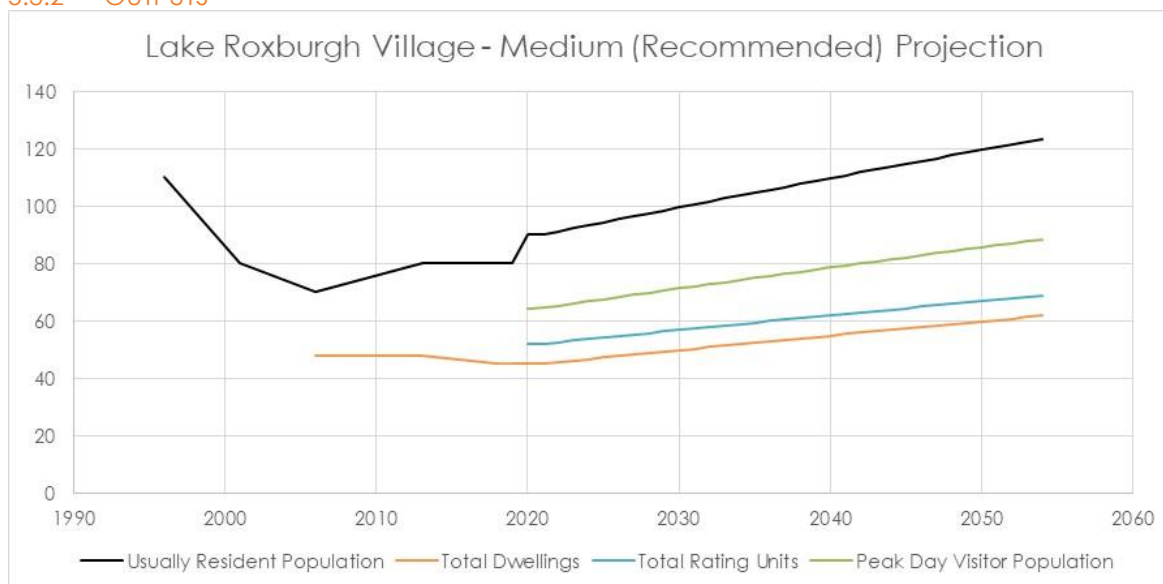


Figure 37: Lake Roxburgh Village - Growth Projections Outputs

Table 23: Lake Roxburgh Village - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006 | 2013 | 2018 | 2019 | 2020 | 2021 | 2024 | 2034 | 2054 |
|---|------|------|------|------|------|------|------|------|------|
| <b>Usually Resident Population</b>            | 70   | 80   | 80   | 80   | 90   | 90   | 93   | 104  | 123  |
| <b>Total Dwellings</b>                        | 48   | 48   | 45   | 45   | 45   | 45   | 47   | 52   | 62   |
| <b>Total Rating Units</b>                     |      |      |      | 53   | 52   | 52   | 54   | 59   | 69   |
| <b>Residential and Lifestyle Rating Units</b> |      | 49   | 49   | 49   | 49   | 49   | 51   | 56   | 66   |
| <b>Peak Day Population</b>                    |      |      |      |      | 154  | 154  | 160  | 178  | 212  |
| <b>Peak Day Visitors</b>                      |      |      |      |      | 64   | 64   | 67   | 74   | 88   |

Table 24: Lake Roxburgh Village - Growth Projections Summary – Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | 20                               | 1.3               | 1.7%                   | 14                                   | 1.0               | 1.1%                   | 20                                  | 1.0               | 0.9%                   |
| <b>Total Dwellings</b>                        | -3                               | -0.2              | -0.4%                  | 7                                    | 0.5               | 1.1%                   | 10                                  | 0.5               | 0.9%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 7                                    | 0.5               | 1.0%                   | 10                                  | 0.5               | 0.8%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 7                                    | 0.5               | 1.0%                   | 10                                  | 0.5               | 0.8%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 23                                   | 1.8               | 1.1%                   | 34                                  | 1.7               | 0.9%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 10                                   | 0.8               | 1.1%                   | 14                                  | 0.7               | 0.9%                   |



## 5.4 Ettrick

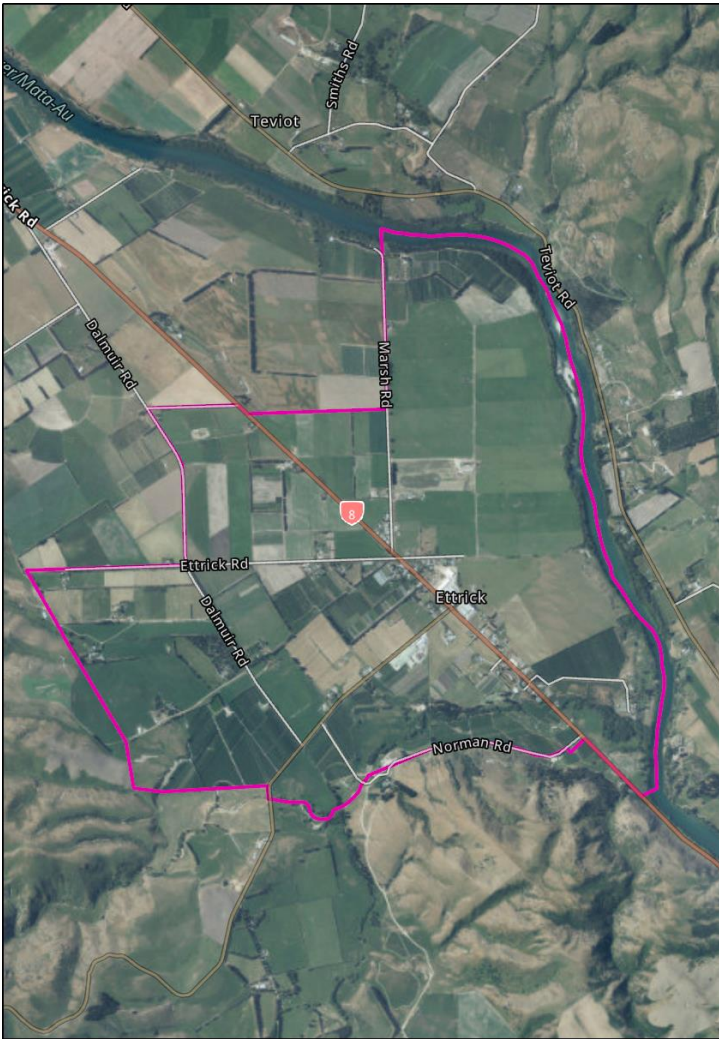


Figure 38: Ettrick rural settlement boundary

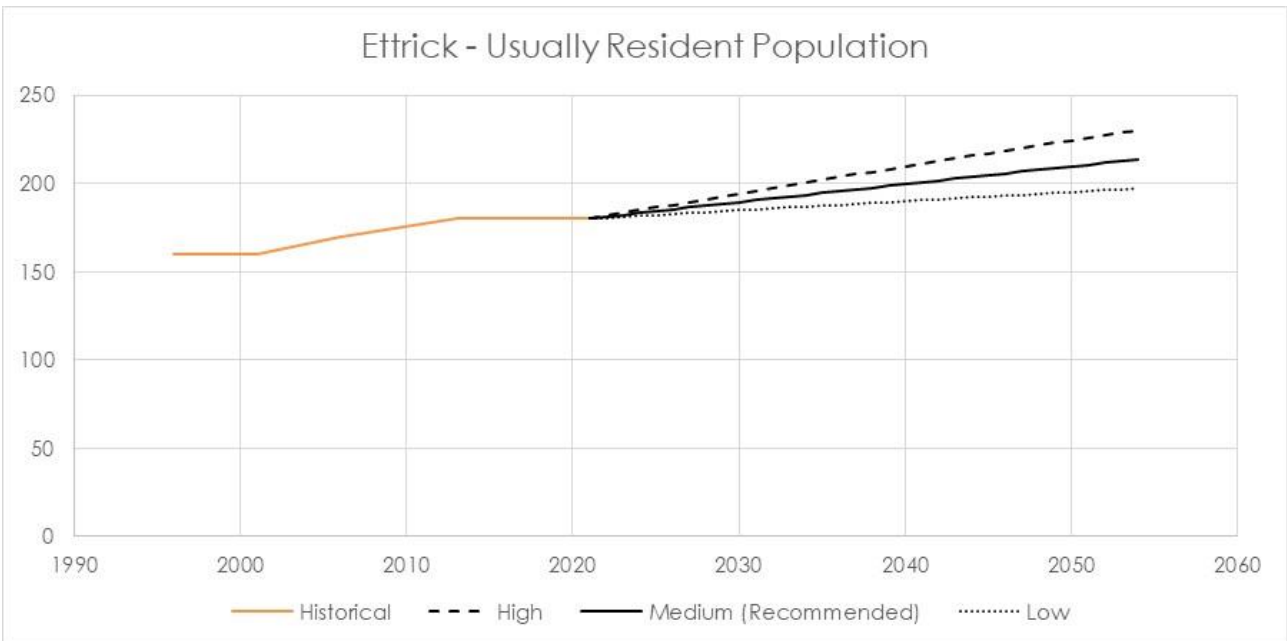


Figure 39: Ettrick - Usually Resident Population

#### 5.4.1 SUMMARY

- Resident population has remained stable with no signs of growth since 2013.
- Some growth projected in the short and long term, at a rate of 1 person per year.
- Any growth likely to be driven by lifestyle early/semi-retirees

#### 5.4.2 OUTPUTS

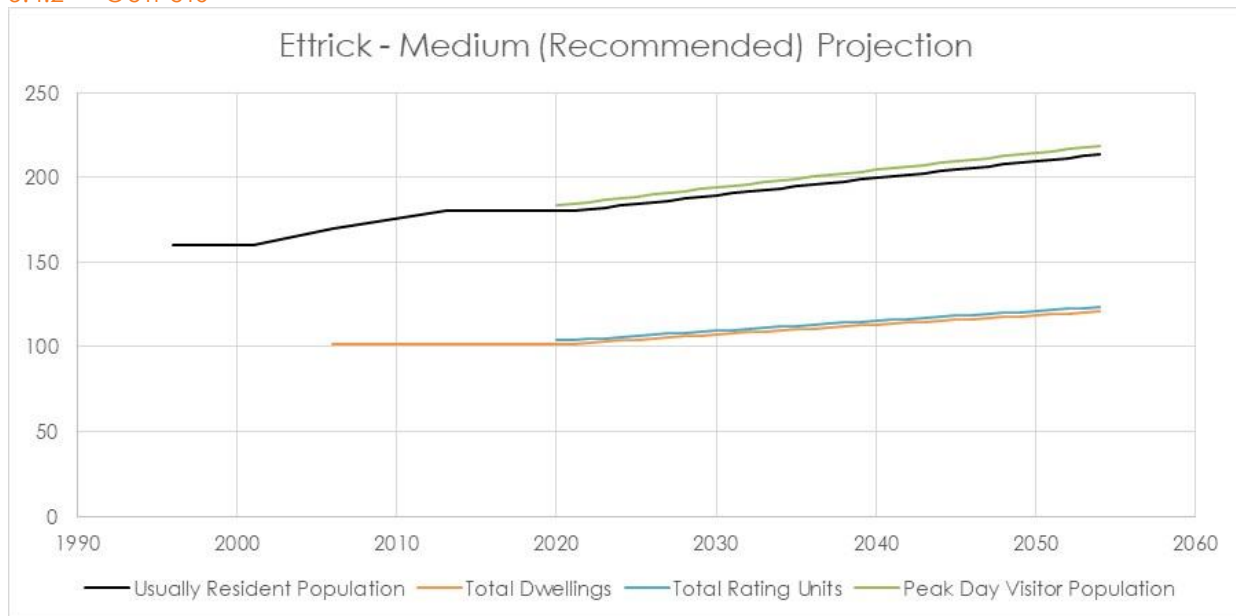


Figure 40: Ettrick - Growth Projections Outputs

Table 25: Ettrick - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006 | 2013 | 2018 | 2019 | 2020 | 2021 | 2024 | 2034 | 2054 |
|---|------|------|------|------|------|------|------|------|------|
| <b>Usually Resident Population</b>            | 170  | 180  | 180  | 180  | 180  | 180  | 183  | 194  | 213  |
| <b>Total Dwellings</b>                        | 102  | 102  | 102  | 102  | 102  | 102  | 104  | 110  | 121  |
| <b>Total Rating Units</b>                     |      |      |      | 105  | 104  | 104  | 106  | 112  | 123  |
| <b>Residential and Lifestyle Rating Units</b> |      | 87   | 85   | 85   | 85   | 85   | 87   | 93   | 104  |
| <b>Peak Day Population</b>                    |      |      |      |      | 364  | 364  | 371  | 392  | 432  |
| <b>Peak Day Visitors</b>                      |      |      |      |      | 184  | 184  | 188  | 198  | 219  |

Table 26: Ettrick - Growth Projections Summary – Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | 10                               | 0.7               | 0.4%                   | 14                                   | 1.0               | 0.6%                   | 20                                  | 1.0               | 0.5%                   |
| <b>Total Dwellings</b>                        | 0                                | 0.0               | 0.0%                   | 8                                    | 0.6               | 0.6%                   | 11                                  | 0.6               | 0.5%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 8                                    | 0.6               | 0.6%                   | 12                                  | 0.6               | 0.5%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 8                                    | 0.6               | 0.7%                   | 11                                  | 0.6               | 0.6%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 28                                   | 2.1               | 0.6%                   | 40                                  | 2.0               | 0.5%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 14                                   | 1.1               | 0.6%                   | 20                                  | 1.0               | 0.5%                   |

## 5.5 Millers Flat

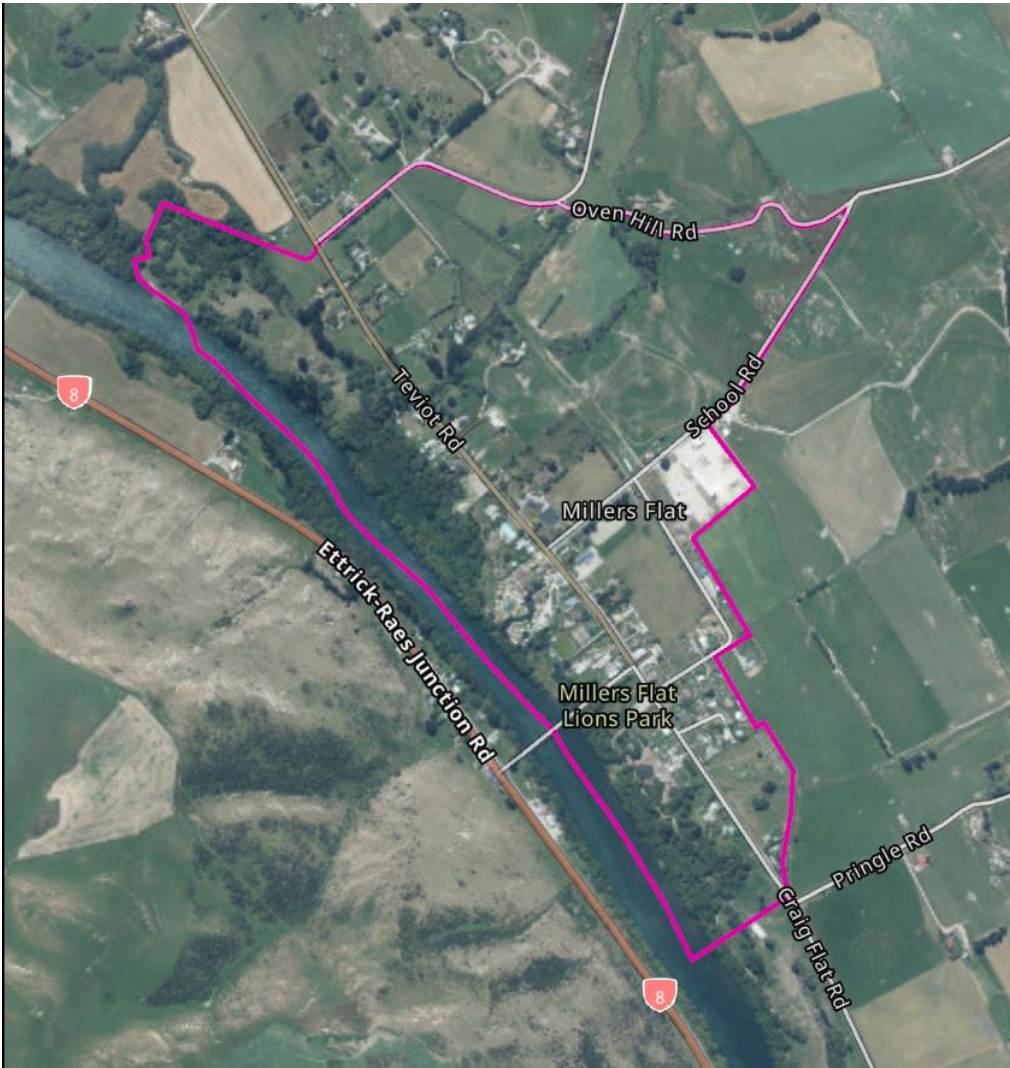


Figure 41: Millers Flat rural settlement boundary

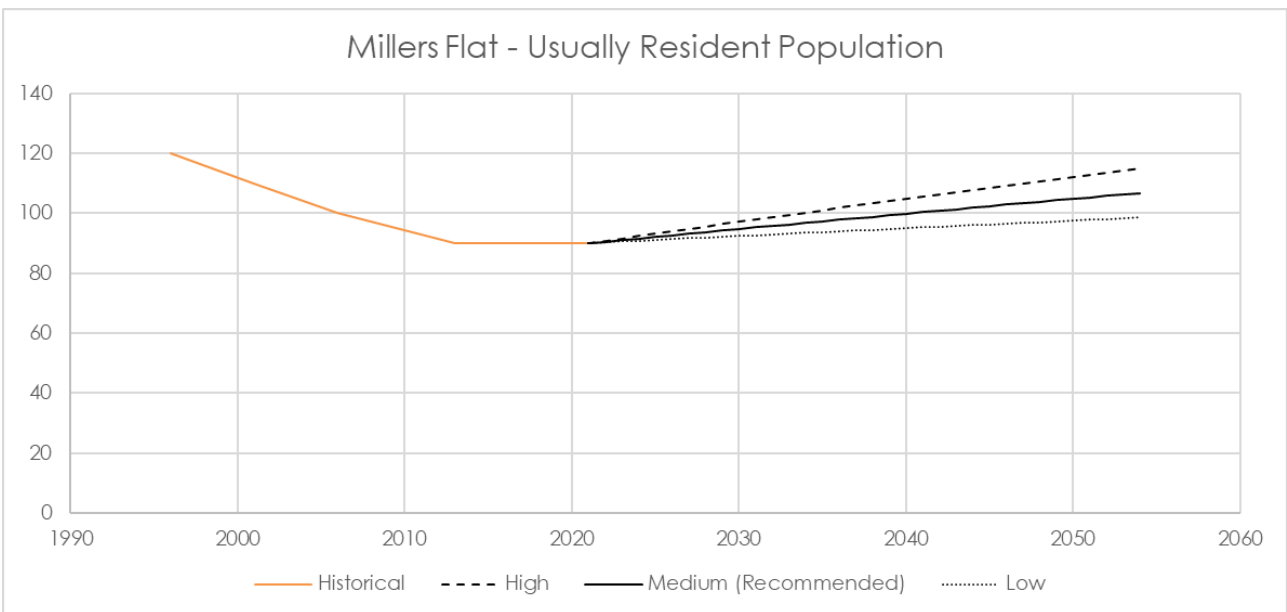


Figure 42: Millers Flat - Usually Resident Population

### 5.5.1 SUMMARY

- Resident population has declined over the last 21 years.
- Any growth likely to be driven by lifestyle early/semi-retirees.
- Relative strong influence from visitor population.
- Very low growth projected in the short and long term.

### 5.5.2 OUTPUTS

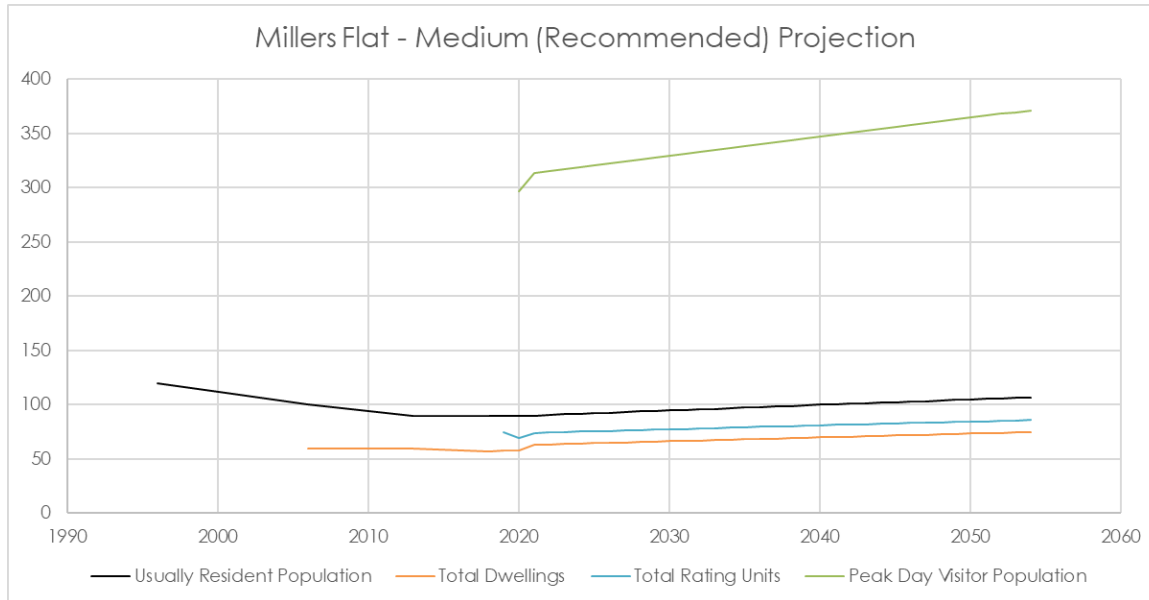


Figure 43: Millers Flat - Growth Projections Outputs

Table 27: Millers Flat - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006 | 2013 | 2018 | 2019 | 2020 | 2021 | 2024 | 2034 | 2054 |
|---|------|------|------|------|------|------|------|------|------|
| <b>Usually Resident Population</b>            | 100  | 90   | 90   | 90   | 90   | 90   | 92   | 97   | 107  |
| <b>Total Dwellings</b>                        | 60   | 60   | 57   | 58   | 58   | 63   | 64   | 68   | 75   |
| <b>Total Rating Units</b>                     |      |      |      | 75   | 69   | 74   | 75   | 79   | 86   |
| <b>Residential and Lifestyle Rating Units</b> |      | 56   | 59   | 60   | 60   | 65   | 66   | 70   | 77   |
| <b>Peak Day Population</b>                    |      |      |      |      | 387  | 403  | 410  | 434  | 478  |
| <b>Peak Day Visitors</b>                      |      |      |      |      | 297  | 313  | 319  | 337  | 371  |

Table 28: Millers Flat - Growth Projections Summary – Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | -10                              | -0.7              | -0.7%                  | 7                                    | 0.5               | 0.6%                   | 10                                  | 0.5               | 0.5%                   |
| <b>Total Dwellings</b>                        | 3                                | 0.2               | 0.3%                   | 5                                    | 0.4               | 0.6%                   | 7                                   | 0.3               | 0.5%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 5                                    | 0.4               | 0.5%                   | 7                                   | 0.4               | 0.4%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 5                                    | 0.4               | 0.5%                   | 7                                   | 0.3               | 0.5%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 31                                   | 2.3               | 0.6%                   | 44                                  | 2.2               | 0.5%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 24                                   | 1.8               | 0.6%                   | 34                                  | 1.7               | 0.5%                   |

## 6 Maniototo Ward

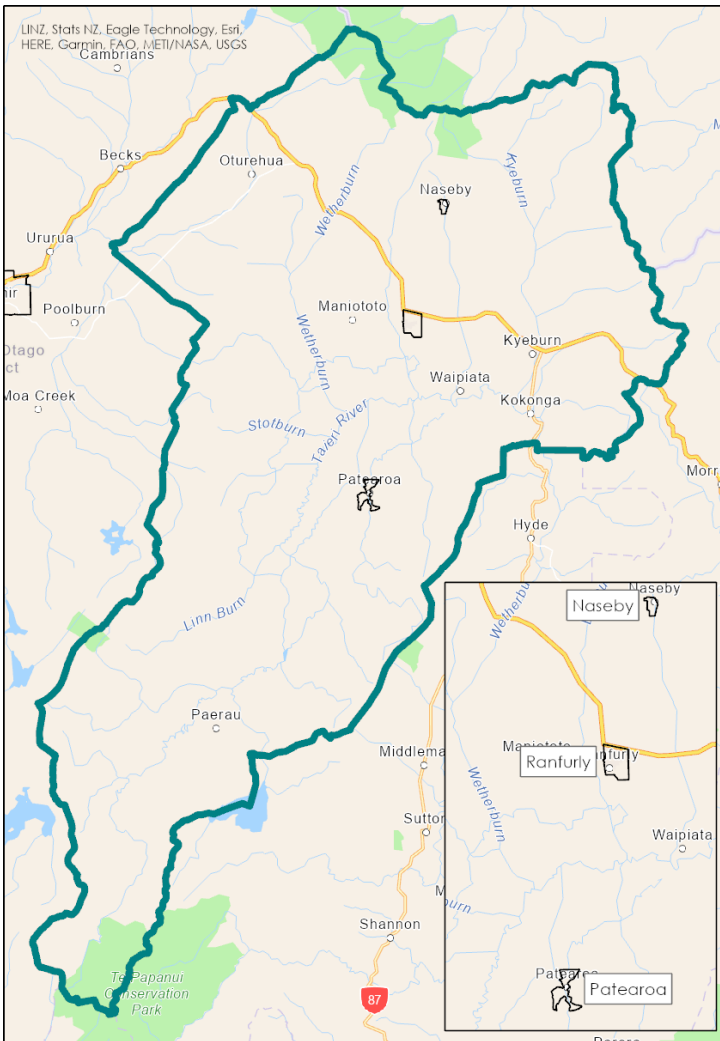


Figure 44: Area of Interest – Maniototo Ward

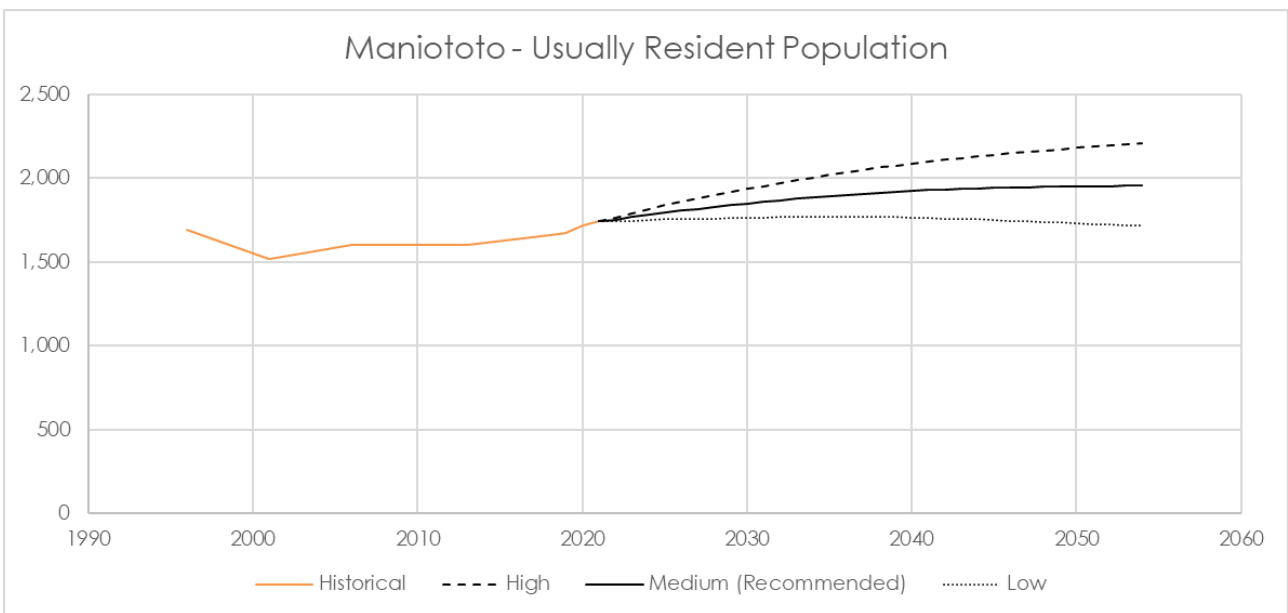


Figure 45: Maniototo Ward – Usually Resident Population

### 6.1.1 SUMMARY

Maniototo Ward is the slowest growing ward in the district. The resident population has been growing at an annual average rate of 0.6% since 2006, and 1.1% since 2013. The growth in dwellings follows a similar trend.

This ward has seen very little growth in employment opportunities over the last 20 years. The main sector for employment is agriculture and horticulture industries which has not grown significantly in the last 10 years.

There has been an increase in migration out of Maniototo by young people (15-19 years old) in the last three years, driven likely by education reasons. There has also been an increase in older adults in their 70s migrating out.

Short-term growth is expected to be similar to that seen since 2006, but longer term growth is expected to slow down and plateau.

### 6.1.2 OUTPUTS

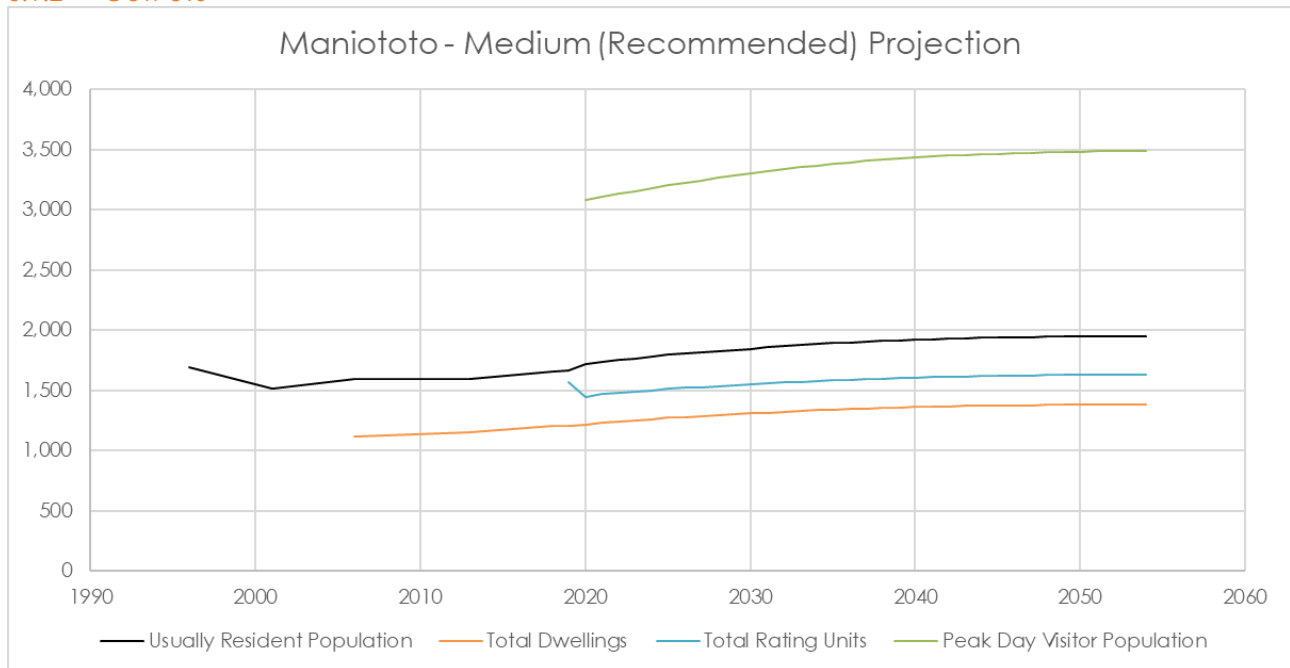


Figure 46: Maniototo Ward – Medium Projection

Table 29: Maniototo Ward - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006  | 2013  | 2018  | 2019  | 2020  | 2021  | 2024  | 2034  | 2054  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Usually Resident Population</b>            | 1,600 | 1,600 | 1,660 | 1,670 | 1,720 | 1,740 | 1,781 | 1,885 | 1,954 |
| <b>Total Dwellings</b>                        | 1,116 | 1,155 | 1,203 | 1,209 | 1,219 | 1,233 | 1,262 | 1,336 | 1,385 |
| <b>Total Rating Units</b>                     |       |       |       | 1,567 | 1,449 | 1,472 | 1,502 | 1,579 | 1,635 |
| <b>Residential and Lifestyle Rating Units</b> |       | 1,066 | 1,088 | 1,097 | 1,101 | 1,116 | 1,145 | 1,218 | 1,267 |
| <b>Peak Day Population</b>                    |       |       |       |       | 4,799 | 4,849 | 4,962 | 5,252 | 5,445 |
| <b>Peak Day Visitors</b>                      |       |       |       |       | 3,079 | 3,109 | 3,182 | 3,368 | 3,491 |

Table 30: Maniototo Ward - Growth Projections Summary – Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | 140                              | 9.3               | 0.6%                   | 145                                  | 11.1              | 0.6%                   | 69                                  | 3.5               | 0.2%                   |
| <b>Total Dwellings</b>                        | 117                              | 7.8               | 0.7%                   | 102                                  | 7.9               | 0.6%                   | 49                                  | 2.4               | 0.2%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 107                                  | 8.2               | 0.5%                   | 56                                  | 2.8               | 0.2%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 102                                  | 7.9               | 0.7%                   | 49                                  | 2.4               | 0.2%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 403                                  | 31.0              | 0.6%                   | 193                                 | 9.6               | 0.2%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 258                                  | 19.9              | 0.6%                   | 123                                 | 6.2               | 0.2%                   |

## 6.2 Ranfurly

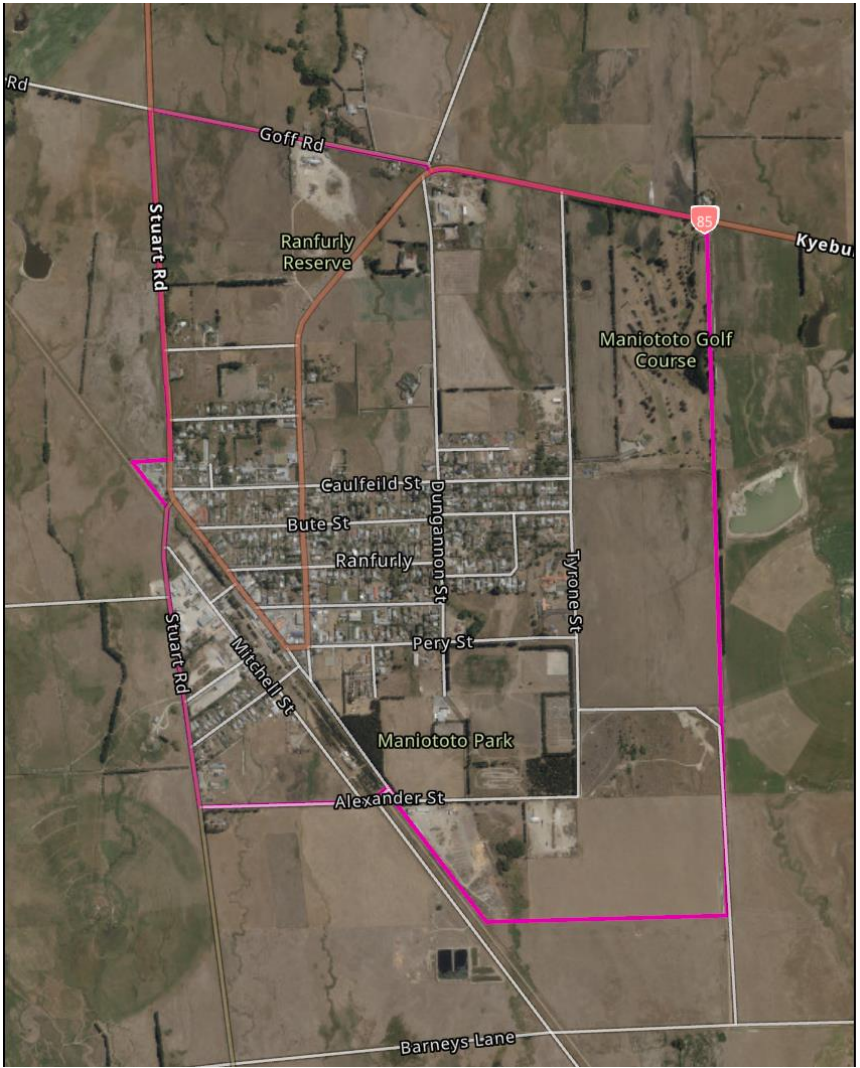


Figure 47: Ranfurly rural settlement boundary

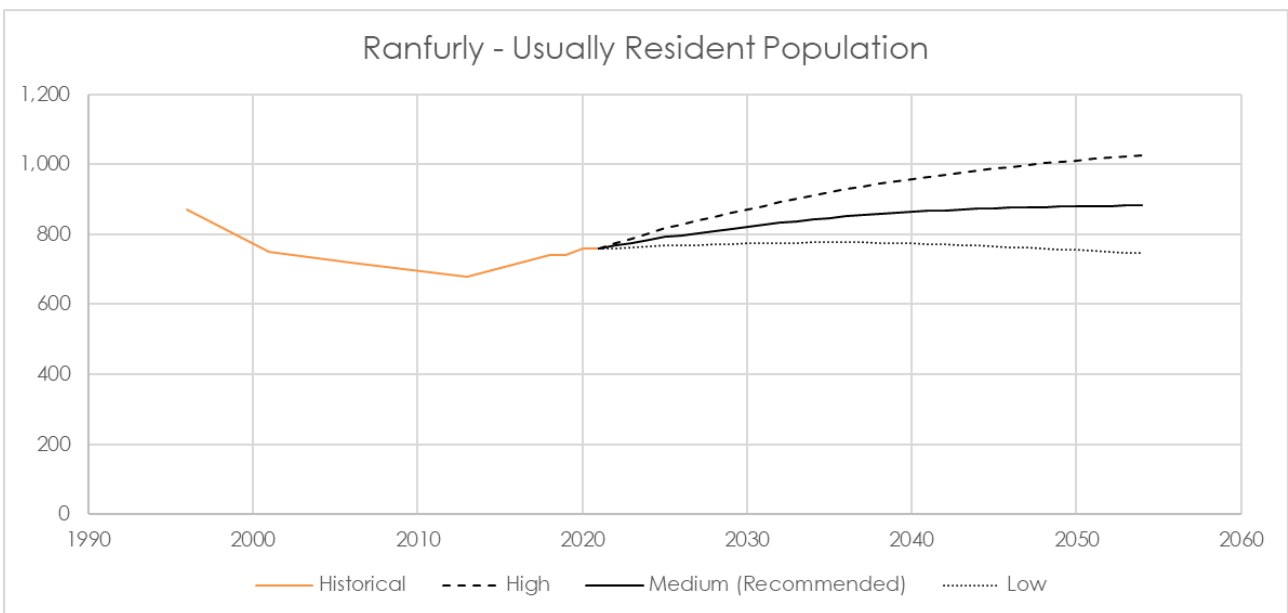


Figure 48: Ranfurly – Usually Resident Population



### 6.2.1 SUMMARY

- Decline in resident population until 2013, and some steady growth since then at an annual average rate of 1.4% which is still well behind the district-level growth.
- Large influence of visitor population being a small town with tourist attractions.
- Growth expected to slightly decelerate in the short term, and plateau in the long term.

### 6.2.2 OUTPUTS

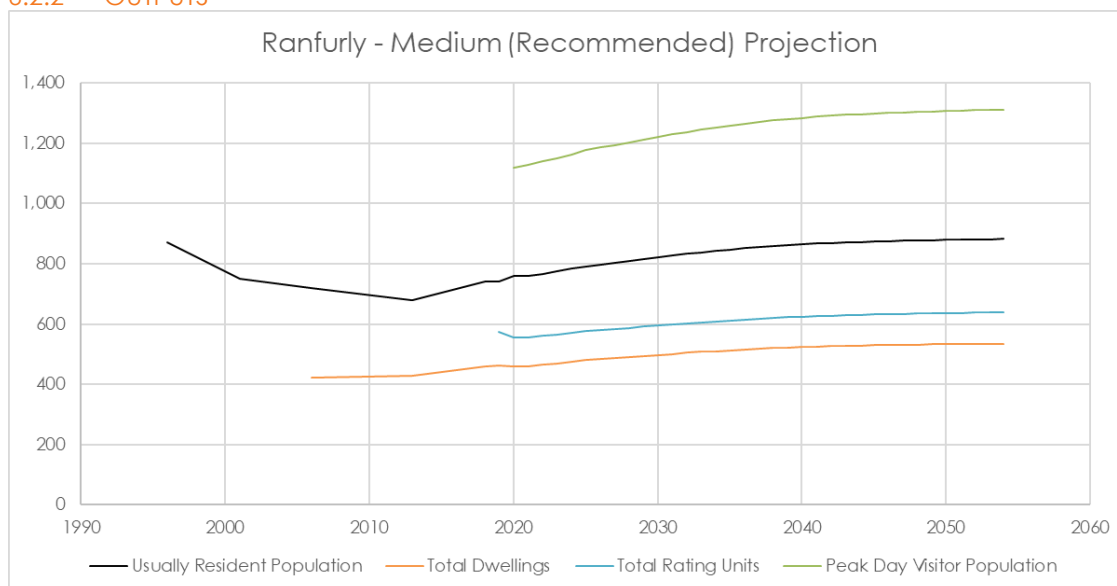


Figure 49: Ranfurly – Medium Projection

Table 31: Ranfurly - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006 | 2013 | 2018 | 2019 | 2020  | 2021  | 2024  | 2034  | 2054  |
|---|------|------|------|------|-------|-------|-------|-------|-------|
| <b>Usually Resident Population</b>            | 720  | 680  | 740  | 740  | 760   | 760   | 783   | 843   | 882   |
| <b>Total Dwellings</b>                        | 423  | 429  | 459  | 461  | 458   | 460   | 474   | 510   | 534   |
| <b>Total Rating Units</b>                     |      |      |      | 575  | 554   | 556   | 571   | 609   | 639   |
| <b>Residential and Lifestyle Rating Units</b> |      | 426  | 436  | 438  | 435   | 437   | 451   | 487   | 511   |
| <b>Peak Day Population</b>                    |      |      |      |      | 1,879 | 1,889 | 1,947 | 2,095 | 2,193 |
| <b>Peak Day Visitors</b>                      |      |      |      |      | 1,119 | 1,129 | 1,164 | 1,252 | 1,311 |

Table 32: Ranfurly - Growth Projections Summary – Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | 40                               | 2.7               | 0.4%                   | 83                                   | 6.4               | 0.8%                   | 39                                  | 2.0               | 0.2%                   |
| <b>Total Dwellings</b>                        | 37                               | 2.5               | 0.6%                   | 50                                   | 3.8               | 0.8%                   | 24                                  | 1.2               | 0.2%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 53                                   | 4.1               | 0.7%                   | 29                                  | 1.5               | 0.2%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 50                                   | 3.8               | 0.8%                   | 24                                  | 1.2               | 0.2%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 205                                  | 15.8              | 0.8%                   | 98                                  | 4.9               | 0.2%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 123                                  | 9.4               | 0.8%                   | 59                                  | 2.9               | 0.2%                   |

### 6.3 Naseby

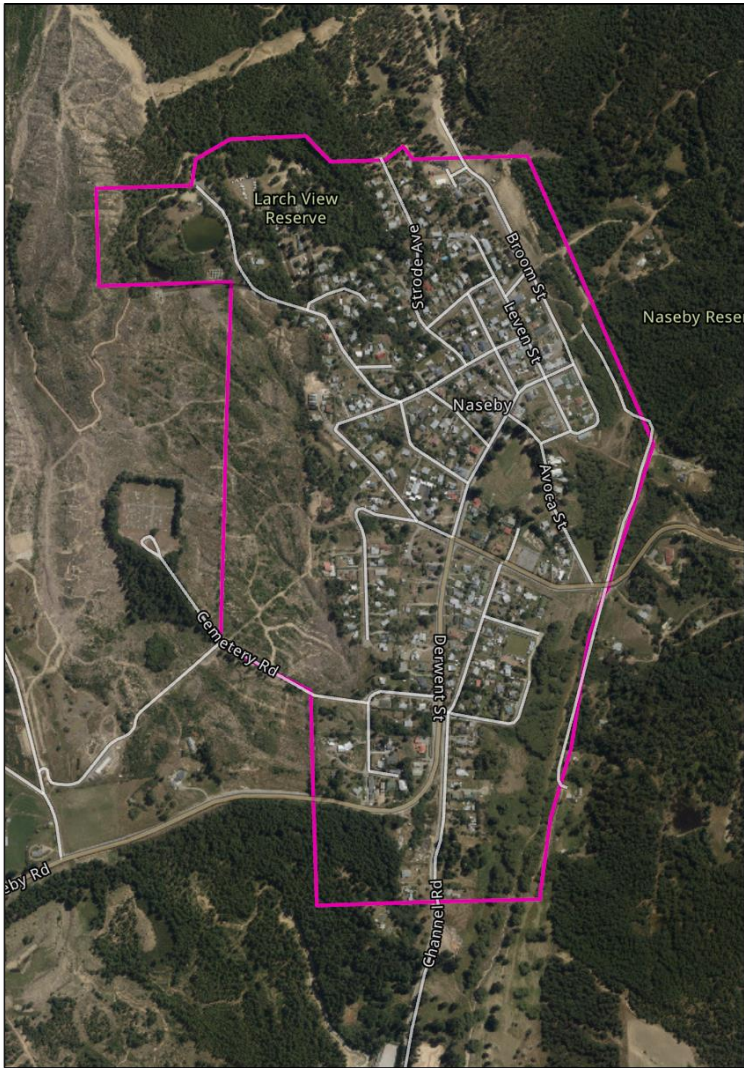


Figure 50: Naseby rural settlement boundary

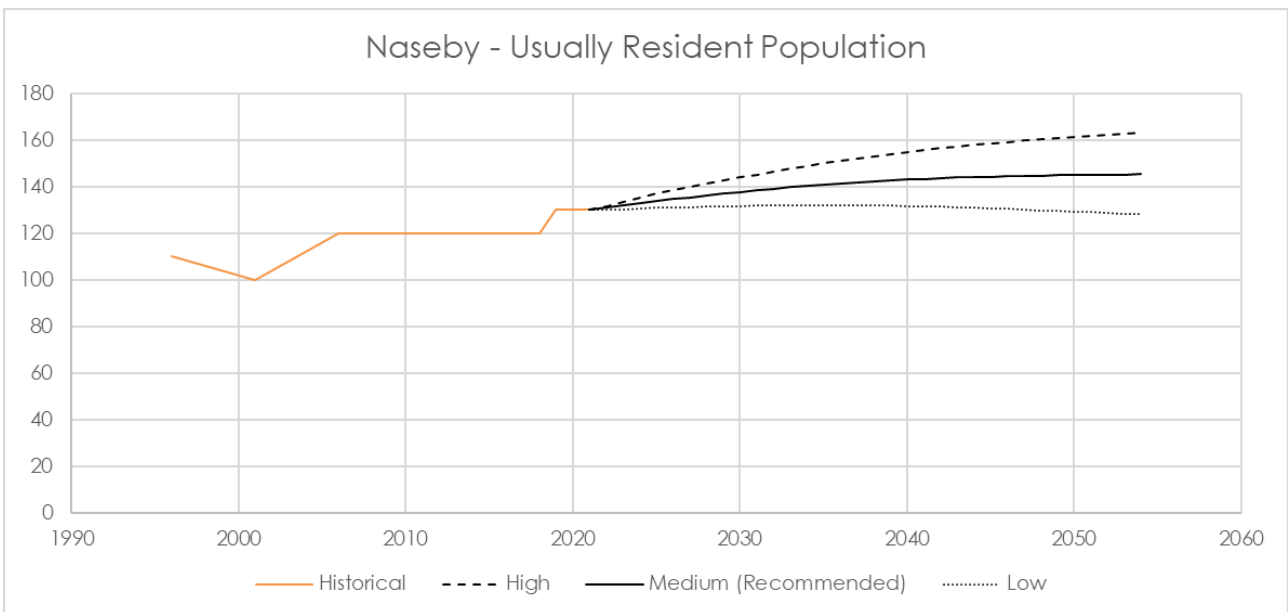


Figure 51: Naseby – Usually Resident Population

### 6.3.1 SUMMARY

- Slight increase in resident population since 2000 although very low compared to the district-wide trend.
- Largely isolated and away from bigger towns, growth in this town is driven by any growth in employment in the area.
- Large influence of visitor population being a very small town with tourist attractions.
- Indicators suggest short and long-term growth will remain low.

### 6.3.2 OUTPUTS

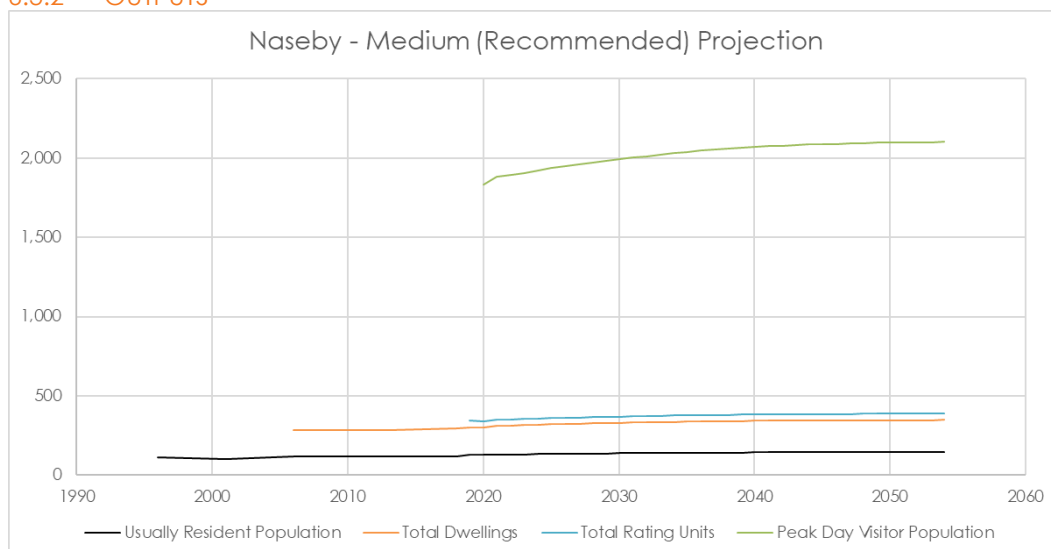


Figure 52: Naseby – Medium Projection

Table 33: Naseby - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2006 | 2013 | 2018 | 2019 | 2020  | 2021  | 2024  | 2034  | 2054  |
|---|------|------|------|------|-------|-------|-------|-------|-------|
| <b>Usually Resident Population</b>            | 120  | 120  | 120  | 130  | 130   | 130   | 133   | 140   | 145   |
| <b>Total Dwellings</b>                        | 285  | 282  | 297  | 298  | 302   | 311   | 318   | 336   | 348   |
| <b>Total Rating Units</b>                     |      |      |      | 345  | 341   | 350   | 357   | 375   | 388   |
| <b>Residential and Lifestyle Rating Units</b> |      | 302  | 308  | 309  | 313   | 322   | 329   | 347   | 359   |
| <b>Peak Day Population</b>                    |      |      |      |      | 1,962 | 2,010 | 2,055 | 2,170 | 2,246 |
| <b>Peak Day Visitors</b>                      |      |      |      |      | 1,832 | 1,880 | 1,922 | 2,030 | 2,101 |

Table 34: Naseby - Growth Projections Summary – Medium (Recommended) Projection

|   | Historic Growth<br>(2006 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | 10                               | 0.7               | 0.5%                   | 10                                   | 0.8               | 0.6%                   | 5                                   | 0.2               | 0.2%                   |
| <b>Total Dwellings</b>                        | 26                               | 1.7               | 0.6%                   | 25                                   | 1.9               | 0.6%                   | 12                                  | 0.6               | 0.2%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 25                                   | 1.9               | 0.5%                   | 13                                  | 0.6               | 0.2%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 25                                   | 1.9               | 0.6%                   | 12                                  | 0.6               | 0.2%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 160                                  | 12.3              | 0.6%                   | 76                                  | 3.8               | 0.2%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 149                                  | 11.5              | 0.6%                   | 71                                  | 3.6               | 0.2%                   |

## 6.4 Patearoa

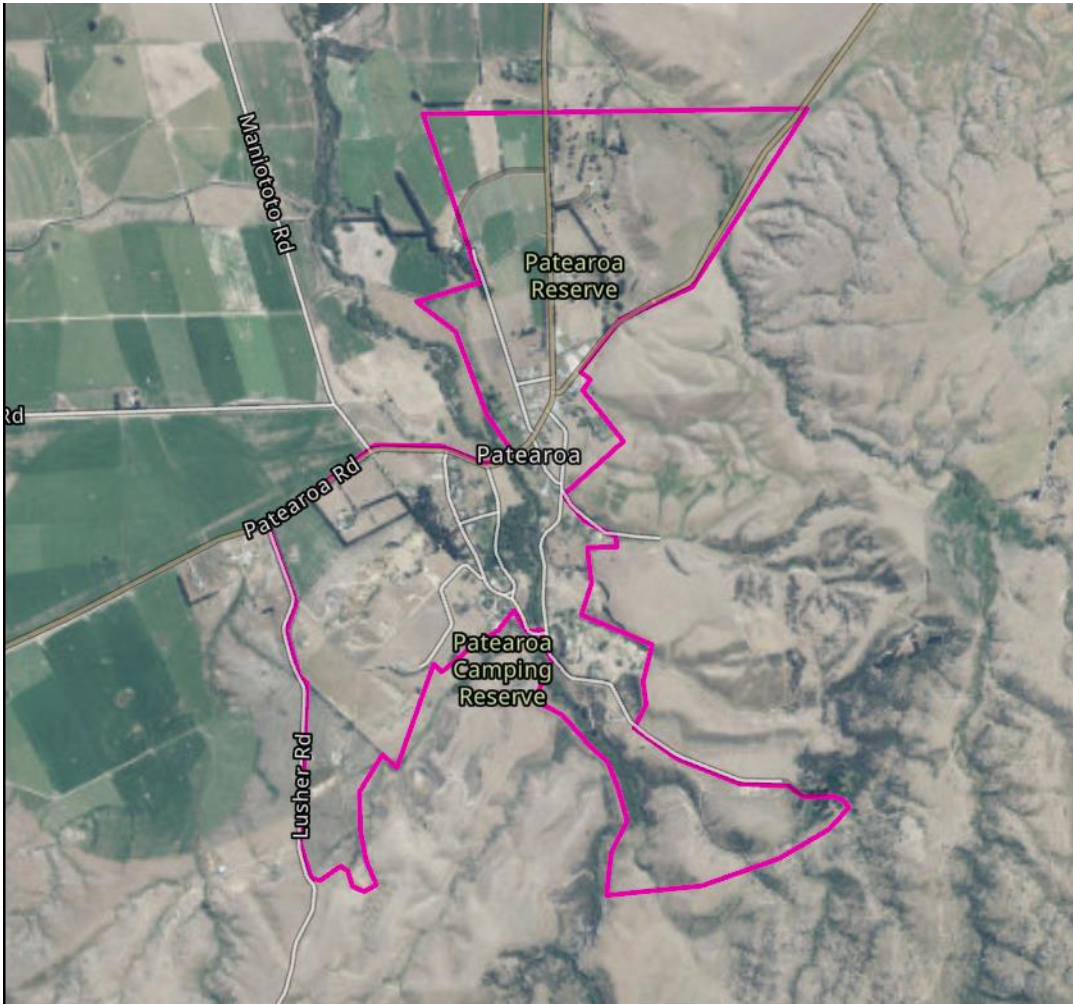


Figure 53: Patearoa scheme boundary

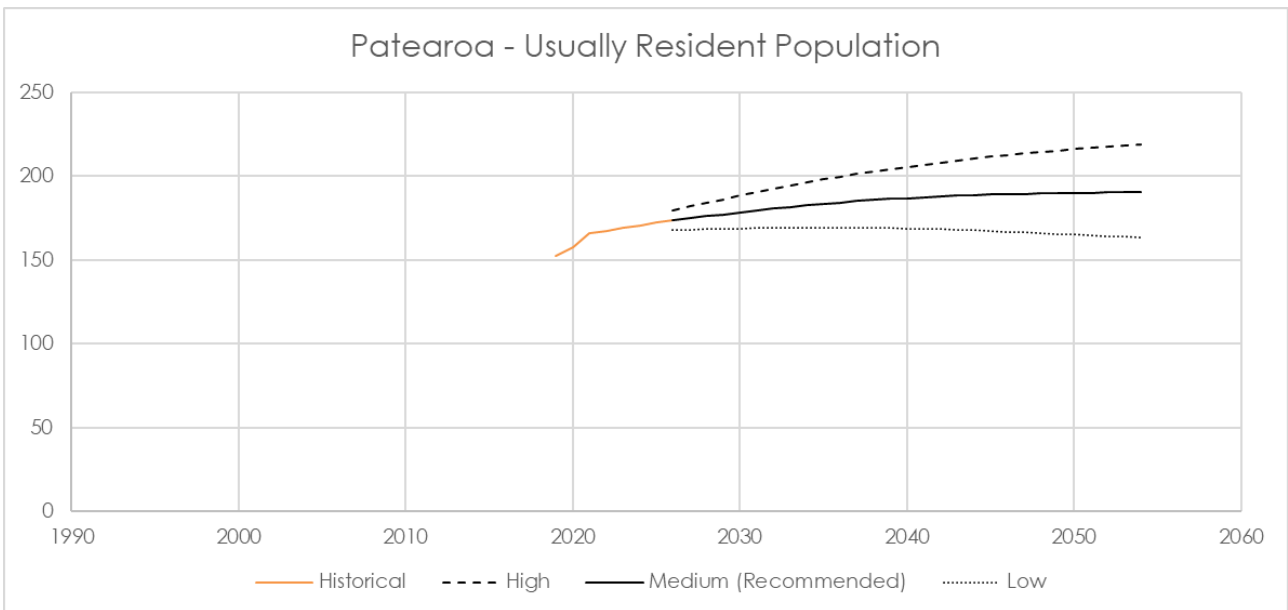


Figure 54: Patearoa- Usually Resident Population

### 6.4.1 SUMMARY

- Resident population has grown the last two years at a faster rate than the whole of the district.
- Number of dwellings has shown a similar trend driven by demand.
- Patearoa also has important influence from visitors, although not as much as Naseby.
- Short and long-term indicators suggest plateauing of growth as there are no strong drivers for migration into the area.

### 6.4.2 OUTPUTS

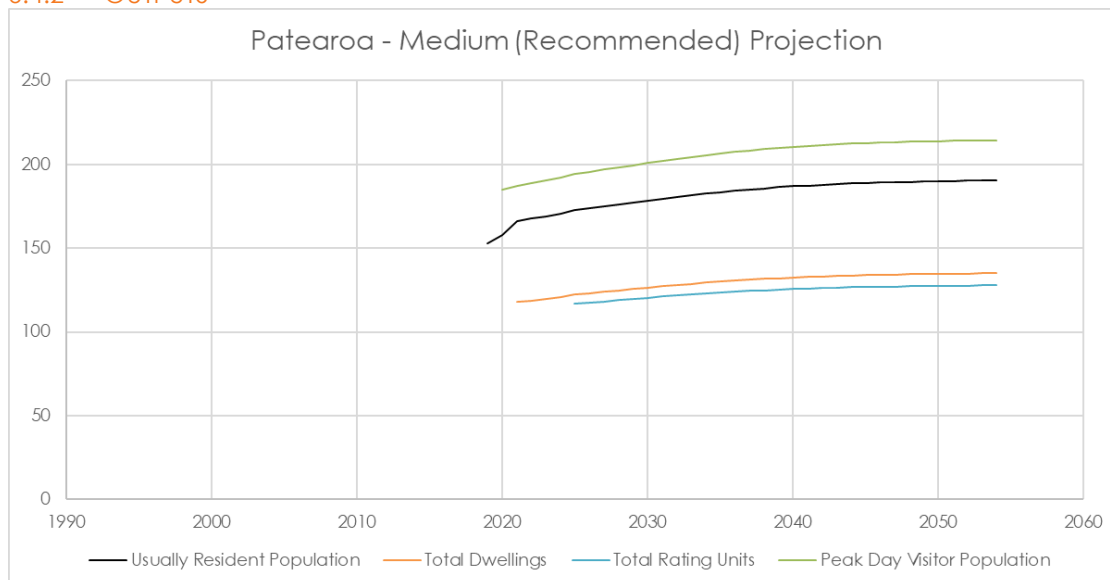


Figure 55: Patearoa – Medium Projection

Table 35: Patearoa - Growth Projections Outputs – Medium (Recommended) Projection

|   | 2019 | 2020 | 2021 | 2024 | 2034 | 2054 |
|---|------|------|------|------|------|------|
| <b>Usually Resident Population</b>            | 153  | 158  | 166  | 171  | 183  | 190  |
| <b>Total Dwellings</b>                        | 111  | 114  | 118  | 121  | 129  | 135  |
| <b>Total Rating Units</b>                     | 111  | 109  | 113  | 116  | 123  | 128  |
| <b>Residential and Lifestyle Rating Units</b> | 93   | 96   | 99   | 102  | 109  | 113  |
| <b>Peak Day Population</b>                    |      | 342  | 353  | 363  | 388  | 405  |
| <b>Peak Day Visitors</b>                      |      | 185  | 187  | 192  | 206  | 214  |

Table 36: Patearoa - Growth Projections Summary – Medium (Recommended) Projection

|   | Historic Growth<br>(2019 - 2021) |                   |                        | Short Term Forecast<br>(2021 - 2034) |                   |                        | Long Term Forecast<br>(2034 - 2054) |                   |                        |
|---|----------------------------------|-------------------|------------------------|--------------------------------------|-------------------|------------------------|-------------------------------------|-------------------|------------------------|
|   | Total Growth                     | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                         | Av. Annual Growth | Av. Annual Growth Rate | Total Growth                        | Av. Annual Growth | Av. Annual Growth Rate |
| <b>Usually Resident Population</b>            | 13                               | 6.7               | 4.3%                   | 16                                   | 1.3               | 0.7%                   | 8                                   | 0.4               | 0.2%                   |
| <b>Total Dwellings</b>                        | 7                                | 3.6               | 3.2%                   | 12                                   | 0.9               | 0.7%                   | 6                                   | 0.3               | 0.2%                   |
| <b>Total Rating Units</b>                     |                                  |                   |                        | 10                                   | 0.8               | 0.6%                   | 5                                   | 0.2               | 0.2%                   |
| <b>Residential and Lifestyle Rating Units</b> |                                  |                   |                        | 10                                   | 0.8               | 0.7%                   | 5                                   | 0.2               | 0.2%                   |
| <b>Peak Day Population</b>                    |                                  |                   |                        | 35                                   | 2.7               | 0.7%                   | 17                                  | 0.8               | 0.2%                   |
| <b>Peak Day Visitors</b>                      |                                  |                   |                        | 18                                   | 1.4               | 0.7%                   | 9                                   | 0.4               | 0.2%                   |

## 7 Rating Units Forecast Growth for 2022

The forecasted growth in rating units for 2022 is summarised below by township. This forecast is based on rating units growth from July 2020 to July 2021, and from July 2021 to February 2022. The average growth rate from these two periods has been used to forecast the growth for the 2022 year.

Out of the townships, Cromwell is expected to have by far the highest growth, with a forecast of 110 new rating units of which 102 are expected to be residential. Alexandra is second with 42 new rating units forecasted. Ranfurly, Clyde, Ettrick and Lake Roxburgh Village are expected to have zero growth in rating units.

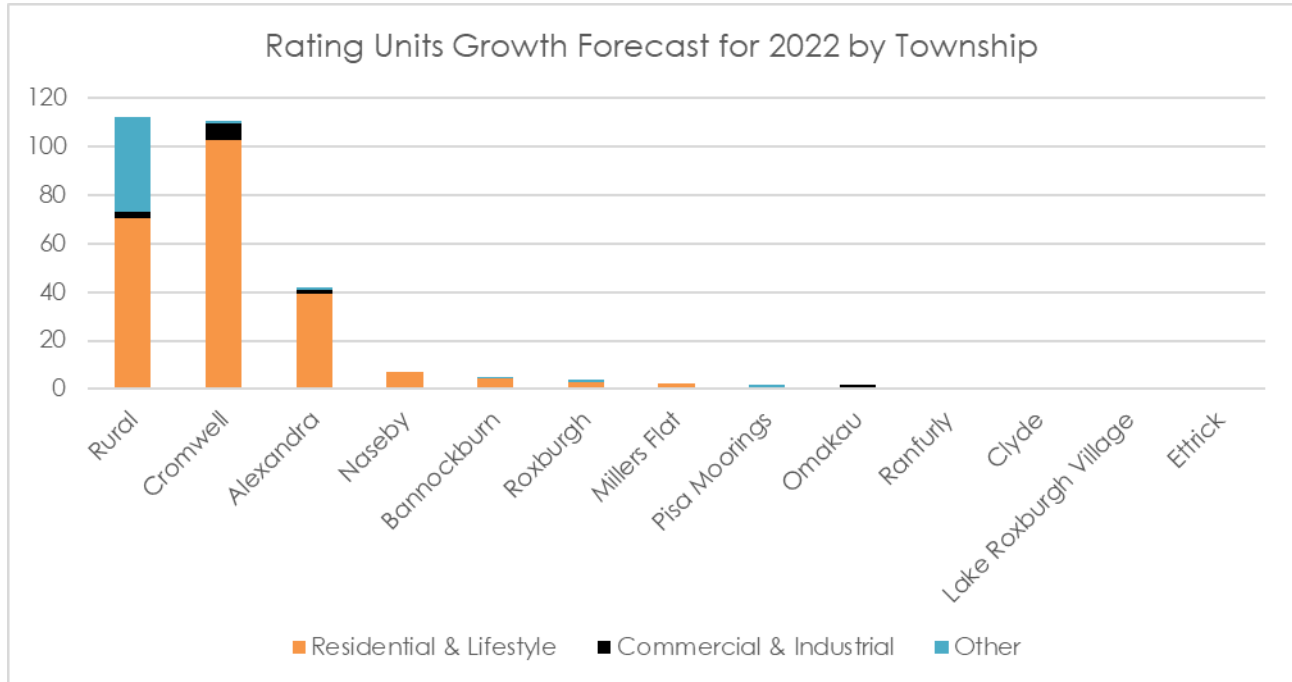


Figure 56: Rating Units Growth Forecast for 2022

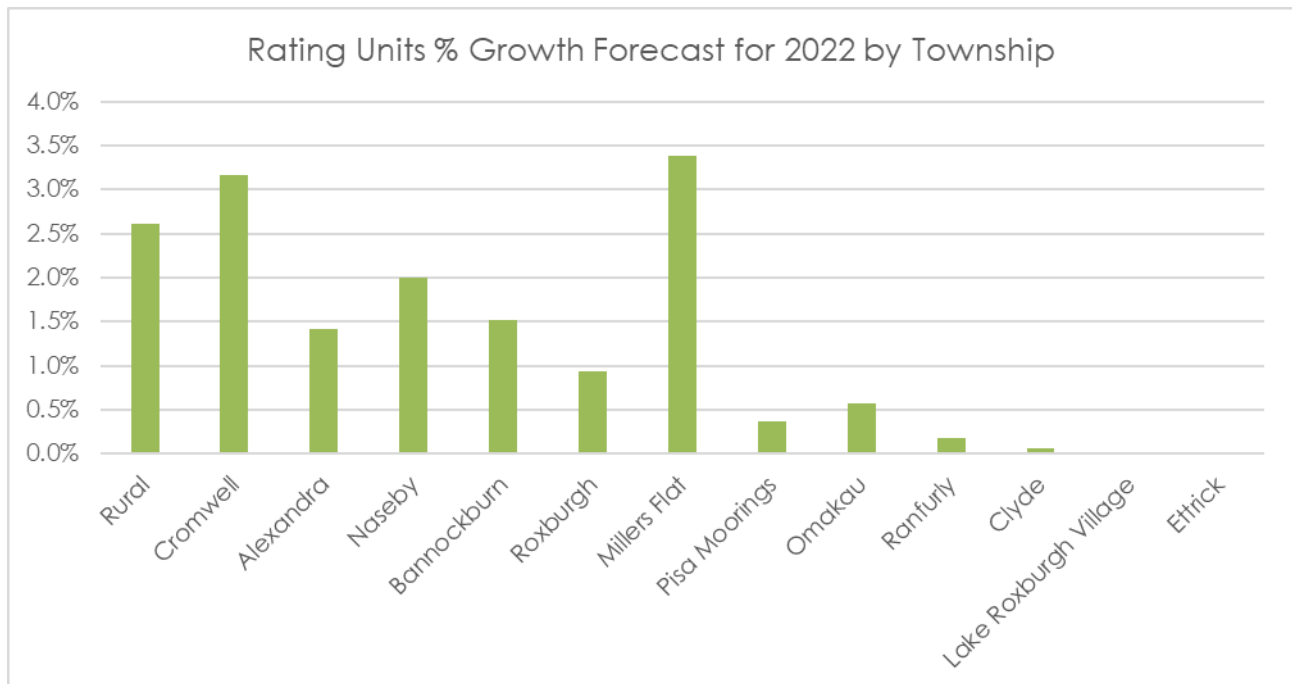


Figure 57: Rating Units % Growth Forecast for 2022

# Part B: Methodology

# 1 Scope

The growth projections have been developed based on different area types within Central Otago. Different area types have different outputs. This is described and illustrated below.

Table 37. Areas of focus.

| District | Ward          | Township<br><i>(See below for definitions)</i> | Water Schemes   | Wastewater Schemes  |
|----------|---------------|--|---|---|
| CODC     | Cromwell      | Cromwell (SA2)                                 | Cromwell (incl Bannockburn, Pisa, Lowburn and Ripponvale) | Cromwell (incl Bannockburn, Pisa, Lowburn and Ripponvale) |
|          |               | Pisa Moorings (UR)                             |   |   |
|          |               | Bannockburn (UR)                               |   |   |
|          | Vincent       | Clyde (SA2)                                    | Alexandra and Clyde                                       | Clyde   |
|          |               | Alexandra (SA2)                                |   | Alexandra   |
|          |               | Omakau and Ophir (UR)                          | Omakau and Ophir  | Omakau and Ophir  |
|          | Maniototo     | Naseby (UR)                                    | Naseby  | Naseby  |
|          |               | Ranfurly (UR)                                  | Ranfurly  | Ranfurly  |
|          |               | Patearoa (Other)                               | Patearoa  |   |
|          | Teviot Valley | Lake Roxburgh (UR)                             | Roxburgh and Lake Roxburgh Village                        | Roxburgh and Lake Roxburgh Village                        |
|          |               | Roxburgh (UR)                                  |   |   |
|          |               | Ettrick (UR)                                   |   |   |

### Geographical Definition of Township Boundaries

SA2 – Stats NZ Statistical Area 2

UR – Stats NZ Urban Rural Settlement

Other – Patearoa is not geographically defined by a Stats NZ area. A boundary that includes all of the settlement has been defined.

Table 38. Modelling outputs by area type.

| Townships, Wards and District  | Water and Wastewater Schemes  |
|--|---|
| <ul style="list-style-type: none"> <li>Usually Resident Population</li> <li>Peak Total Population</li> <li>Peak Visitor Population</li> <li>Total Dwellings</li> <li>Total Rating Units</li> </ul> | <ul style="list-style-type: none"> <li>Usually Resident Population</li> <li>Peak Total Population</li> <li>Peak Visitor Population</li> <li>Total Dwellings</li> <li>Total Rating Units</li> <li>Total Connections</li> </ul> |



## 1.1 Ward Boundaries

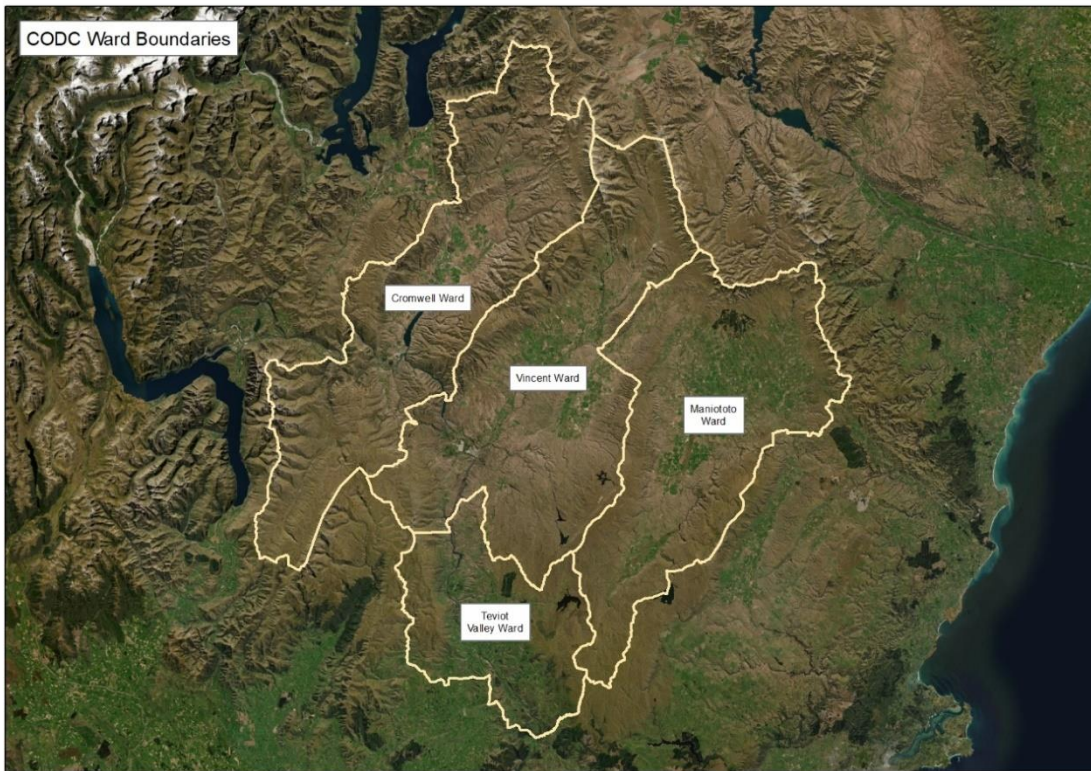


Figure 58: CODC Ward Boundaries

## 1.2 Statistical Area 2 Boundaries

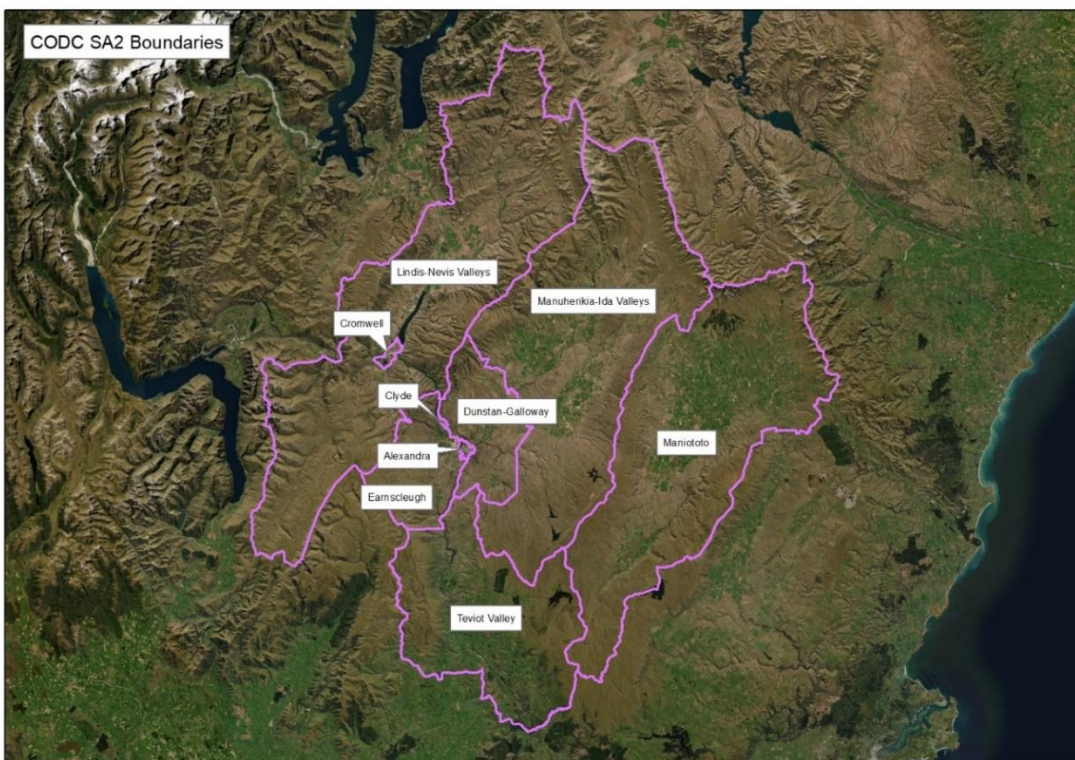


Figure 59: CODC SA2 Boundaries

### 1.3 Rural Township Boundaries

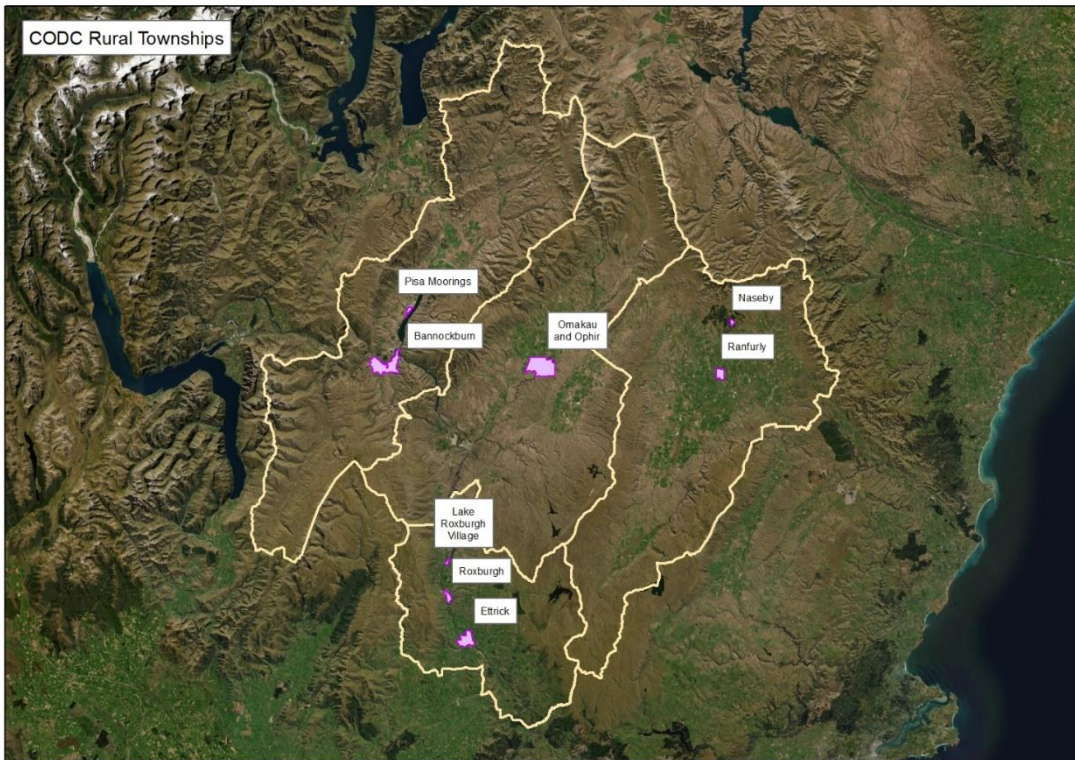


Figure 60: CODC Rural Townships

## 2 Economic Context and Historical Growth

### 2.1 Economic Context

The breakdown of the district's economy and its growth for the last 10 years puts into focus agriculture and construction as the primary industries for employment, with supporting services and retail to accommodate growth.

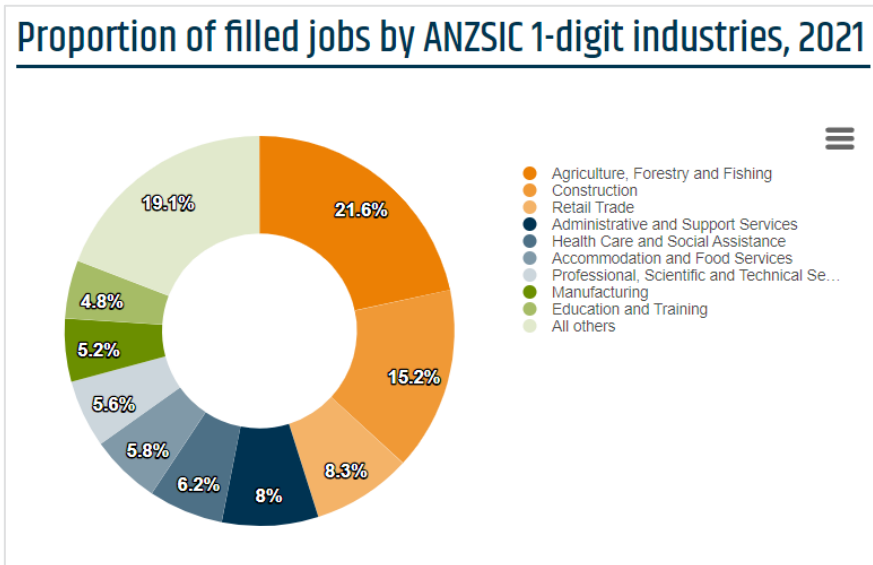


Figure 61: CODC Economic breakdown (Infometrics)

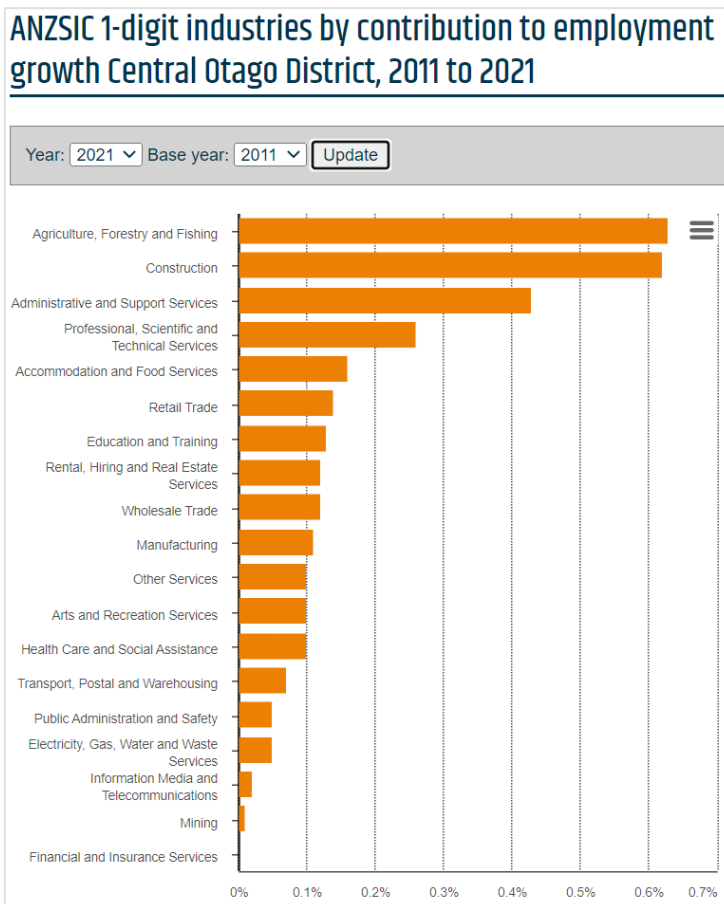


Figure 62: Employment growth by industry in CODC from 2011 to 2021 (Infometrics)

The comparison of employment opportunities by wards shows a contrasting story between the growing Cromwell and Vincent Wards against the stalled Teviot and Maniototo Wards. The Cromwell Ward has shown by far the highest growth rate in employment, surpassing the Vincent Ward in 2021 in terms of number of jobs.

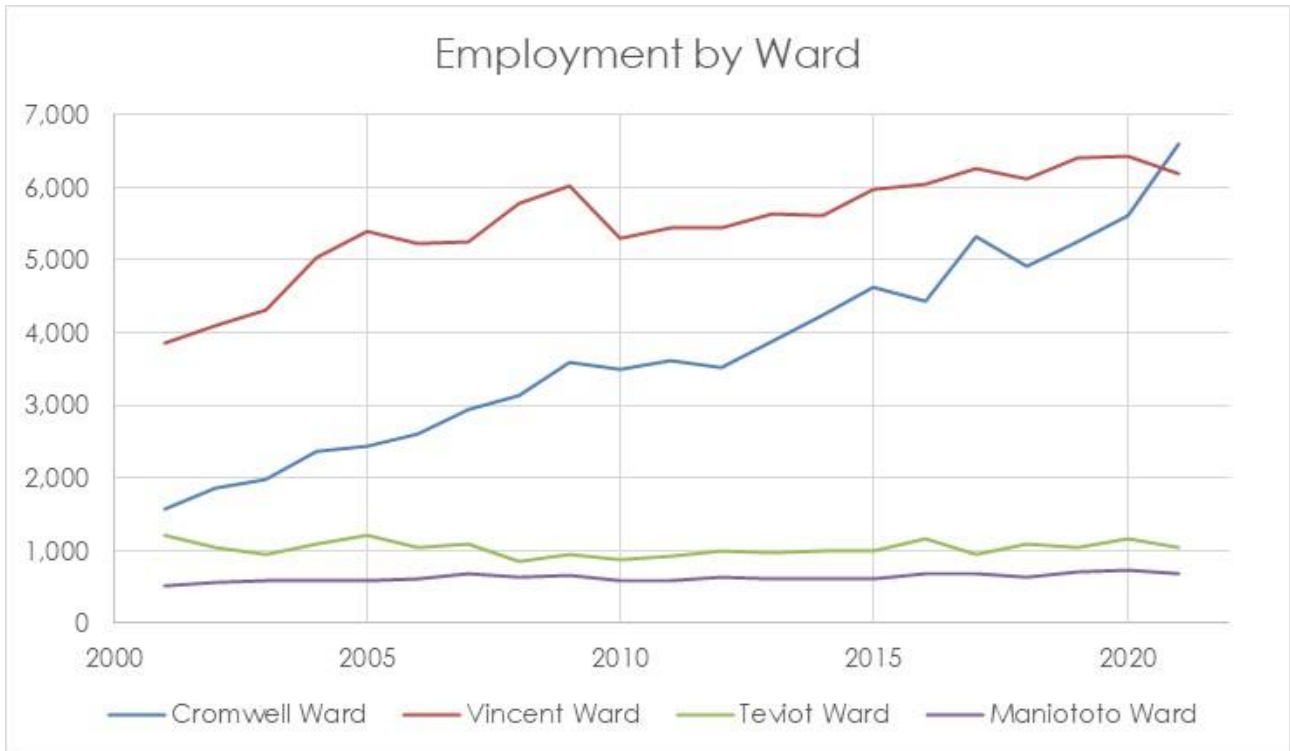


Figure 63: Employment by Ward in CODC (StatsNZ Business Demographics)

## 2.2 Population Breakdown

The breakdown of growth by age shows that the population has grown substantially across all age groups. There is a very high growth rate in adults in the 25-40 years old bracket, likely driven by emerging employment opportunities and those seeking affordable housing. There is also a high growth in older adults in the 55-75 years old bracket, likely driven by lifestyle/retirement reasons.

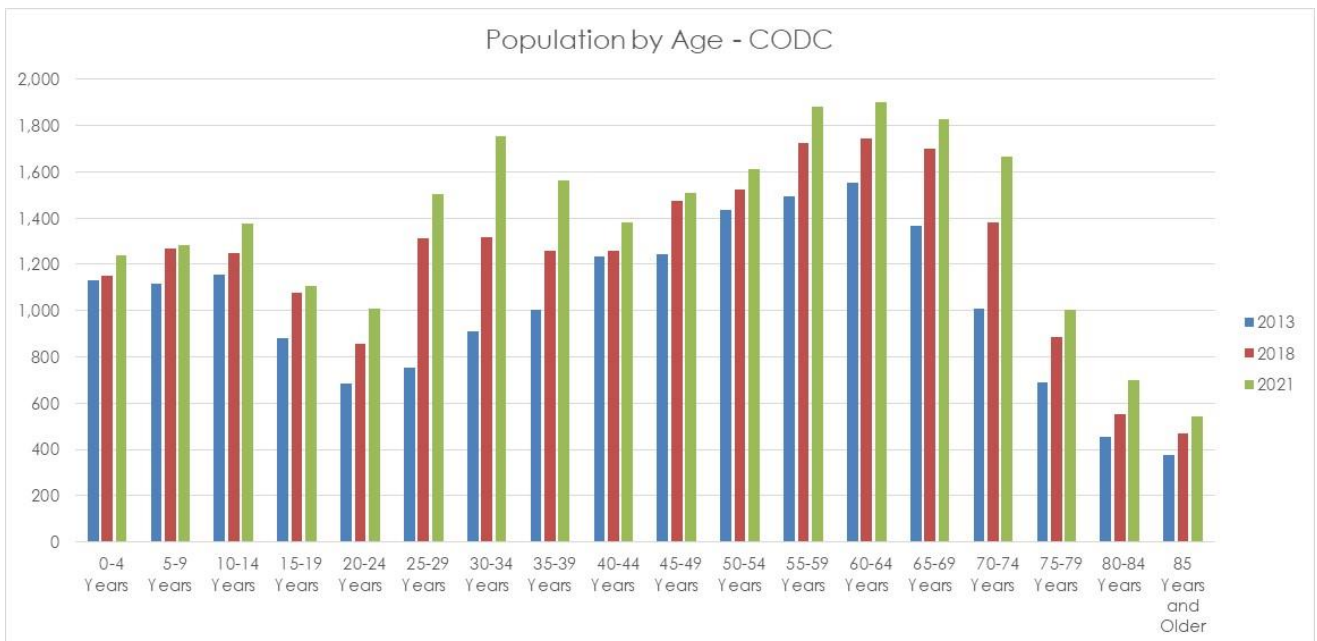


Figure 64: CODC Population by Age at 2013, 2018 and 2021 (Stats NZ Population Estimates)

## 2.3 Regional Context

Although this modelling is focused on CODC, there are some key areas outside this boundary which have an important impact on the district's growth.

The growth in Queenstown has had and will continue to have great influence on the growth of Cromwell, Bannockburn, Pisa Moorings, Clyde and Alexandra. As these towns are within reasonable commuting distance from Queenstown and offer more affordable housing options, migration into these townships is partly driven by jobs in Queenstown.

The employment growth in Queenstown accelerated significantly 2013 onwards, which coincides with an increase in the population growth rate of these townships at a similar time. It has since declined with the impact of Covid-19 and resulting lockdowns, however this is expected to rebound once the borders are reopened.

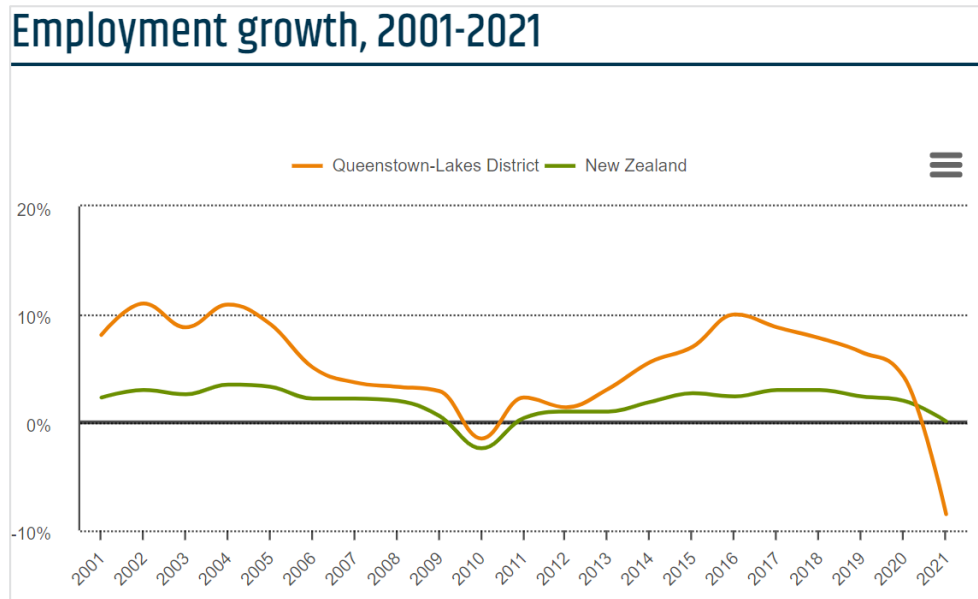


Figure 65: Employment growth in Queenstown-Lakes District from 2001 to 2021 (Infometrics)

## 3 Key Updates and Areas of Recast Growth

- Uses same population model as 2020 projections.
- Historical inputs (URP, Dwellings, Rating units) updated to 1 July 2021.
- Migration inputs unchanged from 2020 projections for Clyde, Dunstan-Galloway, Earnsclough.
- Migration inputs updated for other areas to better align with historical growth.

## 4 Growth Model

The growth projections are modelled in two parts.

- Part one – population model which uses employment forecasts and migration drivers to calculate URP for each SA2
- Part two – outputs model which apportions population growth to townships and calculates remaining model outputs (dwellings, rating units, visitors/peak day population and connections/connected population)

### 4.1 Population Model

These growth projections have been developed using a bottom-up approach. Individual growth drivers were used for Alexandra, Cromwell, and each of the remaining Statistical Area 2 (SA2) boundaries in CODC. These were then summed to understand the growth in each Ward and the District as a whole.

Growth in Rural Townships, Water Schemes and Wastewater schemes were apportioned out to give a micro view.

The below diagram is a high-level overview of the process that was used to develop the 2022 projections. A detailed diagram illustrating the process has been appended.

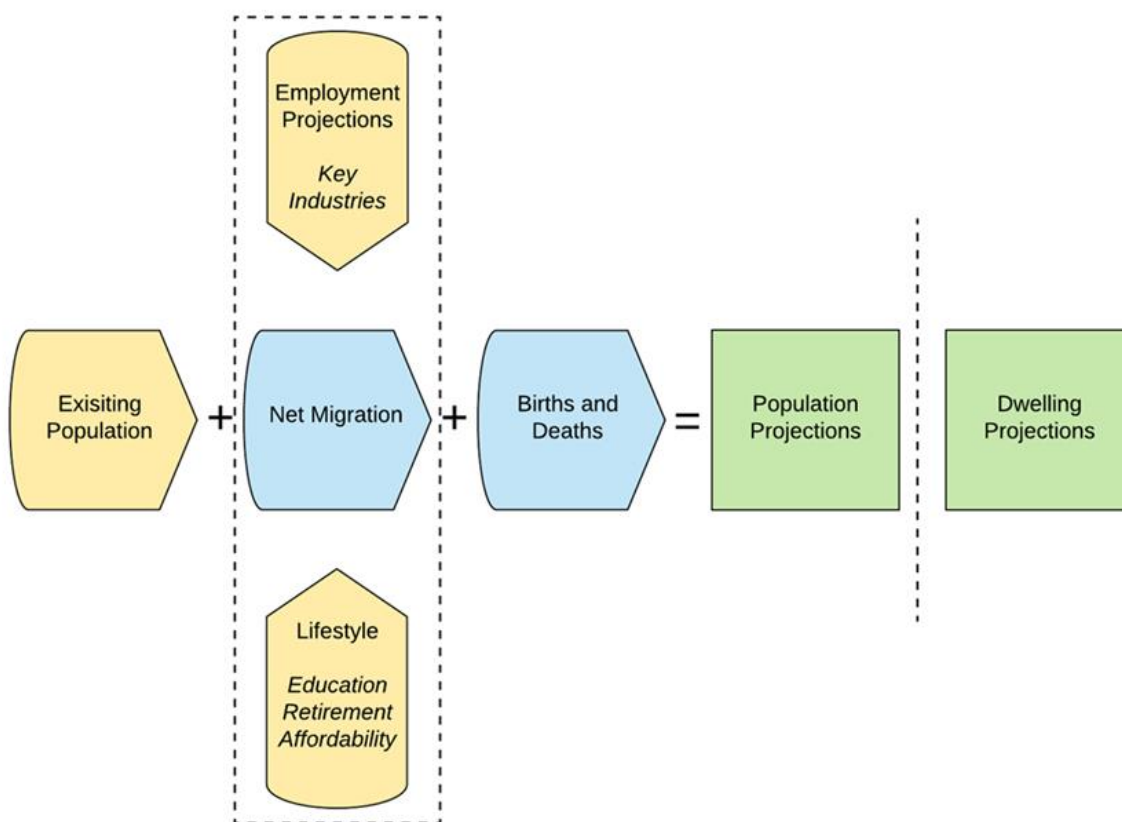


Figure 66: Growth Projections methodology – simplified

#### 4.1.1 EMPLOYMENT PROJECTIONS

Historic employment records were used to understand the key industries in each area and how these have changed and evolved since 2000.

In the 2020 projections, to predict future growth in jobs, an annual growth rate was calculated using an average of the growth in each of the key industries over the past three years through to 2025, and the past ten years to 2050. The exception to this rule was Agriculture, which due to the instabilities in the industry, the MBIE forecast NZ Wide Annual Growth to 2028<sup>1</sup> of 0.3% growth had been applied. This growth rate was then applied to the number of jobs in the previous year.

In Lindis-Nevis, Dunstan-Galloway and Earnsclough additional jobs were included to account for the projected growth in the Cherry industry.

#### Updates for 2022

For the 2022 projections, the 2020 forecasts were reviewed against the latest available business demography information. Based on this review, employment in Lindis-Nevis and Alexandra has been reforecast by extrapolating a line of best fit through historical employment data. Employment in Teviot has been reforecast based on 0.3% growth in agriculture, the predominant industry in the area.

The forecast employment growth in the remaining areas is still considered appropriate.

<sup>1</sup> <https://www.mbie.govt.nz/assets/medium-to-long-term-employment-outlook-looking-ahead-to-2028.pdf>

#### 4.1.2 MIGRATION

In each area a percentage of migration was included, based on people moving in to fill new jobs. There was also allowance in some areas for dependents. These assumptions are detailed within each area of focus.

Migration for other reasons such as lifestyle, access to better care, education and career opportunities was also included based on the population's past propensity to move in or out for these reasons.

These two factors were combined and used to project the future net migration to the area.

#### 4.1.3 POPULATION PROJECTIONS

Population was calculated in each SA2 for each five-year age group. The projection is the result of the previous year's population plus migration, which was then overlaid by Stats NZ Births and Deaths data.

### 4.2 Outputs Model

The outputs are calculated in the model for each SA2 and Township area. For the District outputs, all of the SA2s are summed together. For the Ward outputs, the relevant SA2s are summed as per the table below.

Table 39: Wards and their relevant SA2s.

| Ward      | Relevant SA2's  |
|-----------|---|
| Cromwell  | Cromwell, Lindis-Nevis  |
| Vincent   | Alexandra, Clyde, Dunstan-Galloway, Earnscliffe, Manuherikia -Ida |
| Teviot    | Teviot  |
| Maniototo | Maniototo   |

Note that a small part of the Manuherikia-Ida SA2 falls within the Maniototo Ward. As this comprises mostly rural rating units, it is deemed insignificant in the scale of the projections.

#### 4.2.1 USUALLY RESIDENT POPULATION

- For each SA2, the usually resident population is calculated in the population model.
- For each township, growth from the parent SA2 is apportioned based on how historical growth has occurred. This process is explained further in section 5.10.

#### 4.2.2 DWELLING PROJECTIONS

The number of occupied dwellings were calculated by taking the projected usually resident population and dividing this by the projected number of people per occupied household for each area of interest. The projected number of people per occupied household was set to that from the 2018 census.

The number of unoccupied dwellings were calculated by taking the projected occupied dwellings and applying the projected ratio of occupied to unoccupied dwellings for each area of interest. The projected ratio of occupied to unoccupied dwellings was estimated as of 1 July 2021 according to the required occupied dwellings and estimated total dwellings.

The total dwellings are the sum of occupied and unoccupied dwellings.

Note: The latest available information for dwellings is the 2018 Census. To estimate dwellings as of 1 July 2021, the growth in residential and lifestyle rating units has been used as a proxy, with one new rating unit equating to one new dwelling.

#### 4.2.3 PEAK DAY POPULATION AND VISITOR PROJECTIONS

The peak day population has been estimated considering the peak day population in private dwellings, and peak day visitors in commercial accommodation.

##### Peak day population in private dwellings.

The peak day population in private dwellings has been calculated by estimating the average dwelling occupancy of all dwellings on the busiest night of the year.

A Rationale study of peak population in Queenstown Lakes in 2004 found a peak day occupancy of 3.9 people per dwelling in Queenstown and 4.9 people per dwelling in Wanaka. Applying this to CODC, it has

been deemed appropriate to allow for a peak day occupancy of 3 people per dwelling in most areas, and 5 people per dwelling in holiday hotspots and areas that see a lot of temporary workers.

**Peak day visitors in commercial accommodation.**

The peak day visitor population was estimated by assuming all commercial accommodation premises in the area are at full capacity. A stocktake of the number of different accommodation types (Holiday Park & Campground, Motels & Apartments, Backpackers, Lodges & Boutiques) was taken for each relevant area. CODC-specific historical rates sourced from the MBIE Accommodation Data Programme were then used to estimate the maximum capacity of each accommodation type, to then get a total maximum capacity by area.

Finally, peak day visitors are estimated by subtracting the usually resident population from the peak day population.

**4.2.4 RATEABLE UNITS**

The rates database was provided to Rationale with the following breakdown of property types, which we have grouped together for the purpose of the growth projections.

Table 40: Grouping of Property Types in Rates Database

| Growth Projections Grouping | Property Type in Rates Database |
|-----------------------------|---------------------------------|
| Residential and Lifestyle   | Residential                     |
|                             | Lifestyle                       |
| Commercial and Industrial   | Commercial                      |
|                             | Industrial                      |
| Other                       | Dairy                           |
|                             | Forestry                        |
|                             | Horticulture                    |
|                             | Mining                          |
|                             | Other                           |
|                             | Pastoral                        |
|                             | Specialist Agriculture          |
|                             | Utilities                       |

“Residential and lifestyle” rating units growth is driven by growth in dwellings. Thus, the model assumes one new “Residential and lifestyle” rating unit for each new dwelling.

For “commercial and industrial” rating units, growth is driven by forecast growth in business units. This is calculated at a Ward level, with a line of best fit applied to business units from 2001 to 2021 (sourced from Infometrics) being used to project growth in each ward. This growth rate is then applied to the existing number of commercial and industrial rating units for each SA2 and Township.

It is assumed that there will be no growth in “other” rating units.

**4.2.5 CUSTOM AREA - PATEAROA**

For the townships described by StatsNZ urban rural boundaries, the “forward run” calculation is used starting with the usually resident population to project dwellings, then residential and lifestyle rating units. StatsNZ does not produce population estimates or Census outputs for Patearoa, meaning that the historical usually resident population is unknown.

Using the number of residential and lifestyle rating units as the starting point, we can complete a “backward run” calculation to infer the dwelling projections, then the usually resident population.

This backward run calculation assumes that Patearoa has growth at the same rate as its parent SA2, Maniototo. It also assumes that the ratio of occupied to unoccupied dwellings, and the number of people per occupied dwelling is the same as Maniototo.



#### 4.2.6 WATER AND WASTEWATER CONNECTIONS

- Current connected units and total properties are extracted from rates database
- Future connections arise from two sources
  - Any new rating unit within the scheme is assumed to require a connection
  - Any rating unit that is within the scheme but is not currently connected will require a connection at some time between now and 2054 (end of scope of projection)
- Growth in total properties calculated from growth rate of parent Township or SA2 applied to existing properties, as explained in Section 7.11.
- “Backward Run” calculation to infer dwellings and population.

### 4.3 Data sources

Data was utilised from the following sources:

- Statistics New Zealand
  - Subnational Population Estimates for SA2 and UR at 1996, 2001, 2006, 2013, 2018, 2019, 2020, 2021
  - Subnational Population Estimates by 5 Year Age Group for SA2 at 1996, 2001, 2006, 2013, 2018, 2019, 2020, 2021
  - Business Demography by SA2 from 2001 to 2021
  - Census Total Dwellings, Occupied and Unoccupied Dwellings at 2006, 2013 and 2018
  - New Dwelling Consents by SA2 from 2001 to 2021
  - Census Commuter Information by SA2 for 2018
- Infometrics
  - Business Unit Growth by Ward from 2001 to 2021
  - Growth Industries – Broad from 2011 to 2021
  - Employment by Ward from 2001 to 2021
- MBIE Accommodation Data Programme
  - CODC accommodation rates by accommodation type for 2021
- CODC Rates Database
  - Ratestrike datasets for July 2020, July 2021 and Feb 2022
  - Rates database extract on Rationale files from April 2019
  - Lookup of property type by valuation number provided Feb 2022
  - Mapping of location by valuation number provided Feb 2022
- Corelogic dataset from 2010 to 2019
- Rationale 2004/5 Peak Population Survey for Queenstown Lakes District Council

## 5 Growth Drivers by Area

### 5.1 Cromwell

On the back of strong growth in neighbouring Queenstown and Wanaka, Cromwell has experienced significant growth in employment, population, and dwellings and is now Central Otago's largest town.

There is a culture of commuting to work in Queenstown, Wanaka and other areas of Central Otago.

Cromwell township comprises two SA2 area – Cromwell East and Cromwell West. These have been treated as one area for the purpose of projecting future growth due the inextricable connections between the two areas.



Figure 67: Area of Interest – Cromwell SA2s

#### 5.1.1 EMPLOYMENT

Overall the growth in employment has slowed down over the last 3 years compared to the last decade. This is partly a temporary effect due to Covid-19. The Agricultural industry has continued to show decline in this area as the town expands into previously productive land and agricultural jobs are moved out to surrounding areas. The Education and Training industry has shown steady growth as more families migrate into Cromwell and there is higher demand for educational facilities.

Table 41. Employment growth by industry - Cromwell

| Industry                                 | Number of Employees in 2021 | % of workforce in 2021 | Average Annual Growth - last 3 years | Average Annual Growth - last 10 years | Average Annual Growth - Since 2001 |
|--|-----------------------------|------------------------|--------------------------------------|---------------------------------------|------------------------------------|
| <b>E Construction</b>                    | 610                         | 19%                    | 3                                    | 37                                    | 22                                 |
| <b>G Retail Trade</b>                    | 442                         | 14%                    | -7                                   | 20                                    | 17                                 |
| <b>H Accommodation and Food Services</b> | 330                         | 10%                    | 5                                    | 17                                    | 11                                 |
| <b>C Manufacturing</b>                   | 300                         | 10%                    | -13                                  | 10                                    | 13                                 |
| <b>P Education and Training</b>          | 280                         | 9%                     | 10                                   | 14                                    | 7                                  |
| <b>Other Industries</b>                  | 1189                        | 38%                    | 29                                   | 42                                    | 33                                 |
| <b>All Industries</b>                    | <b>3,150</b>                | <b>100%</b>            | <b>27</b>                            | <b>139</b>                            | <b>103</b>                         |

No changes were made to the employment forecast used in the 2020 projections.

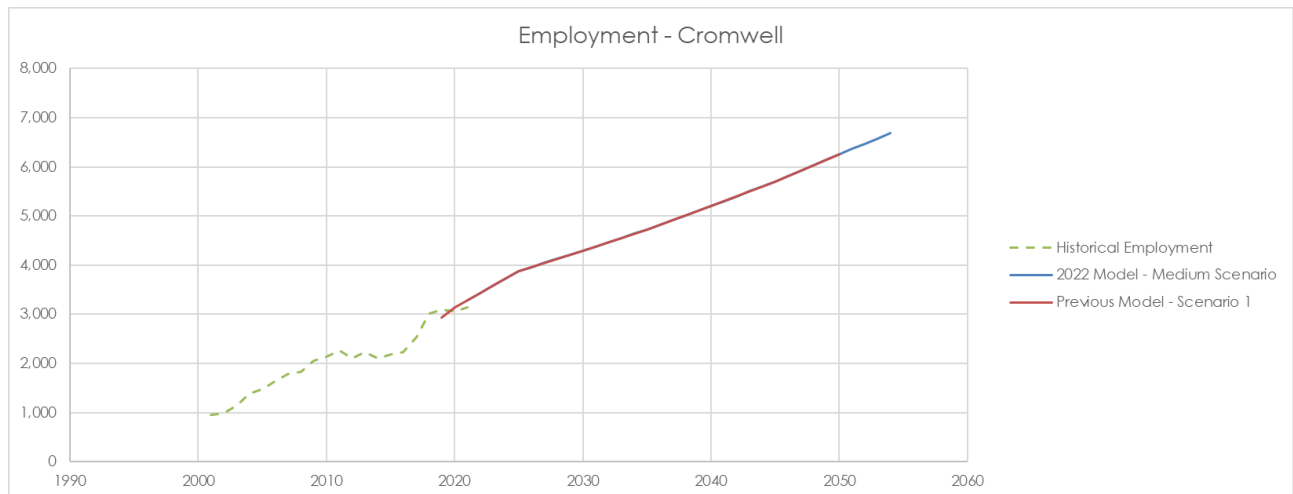


Figure 68: Employment Forecast - Cromwell

### 5.1.2 MIGRATION

- Migration to Cromwell is driven by employment. This brings young industrious people to the area, as well as their families.
- In a similar vein, migrants move to Cromwell for work in neighbouring Queenstown, Wanaka and elsewhere in CODC.
- Additional growth driver for people commuting to Lindis-Nevis for work was added in the 2022 projections.
- Retirees move to Cromwell for the lifestyle opportunities.
- In recent years, it appears that there have been fewer young people leave the area for other opportunities such as education and employment. Alternatively, the same number of people may have left but more people have migrated in for the opportunities that CODC presents.
- Elderly tend to move away from the area in their later years, likely in search of better care.

These trends are reflected below through the population by age and net migration figures.

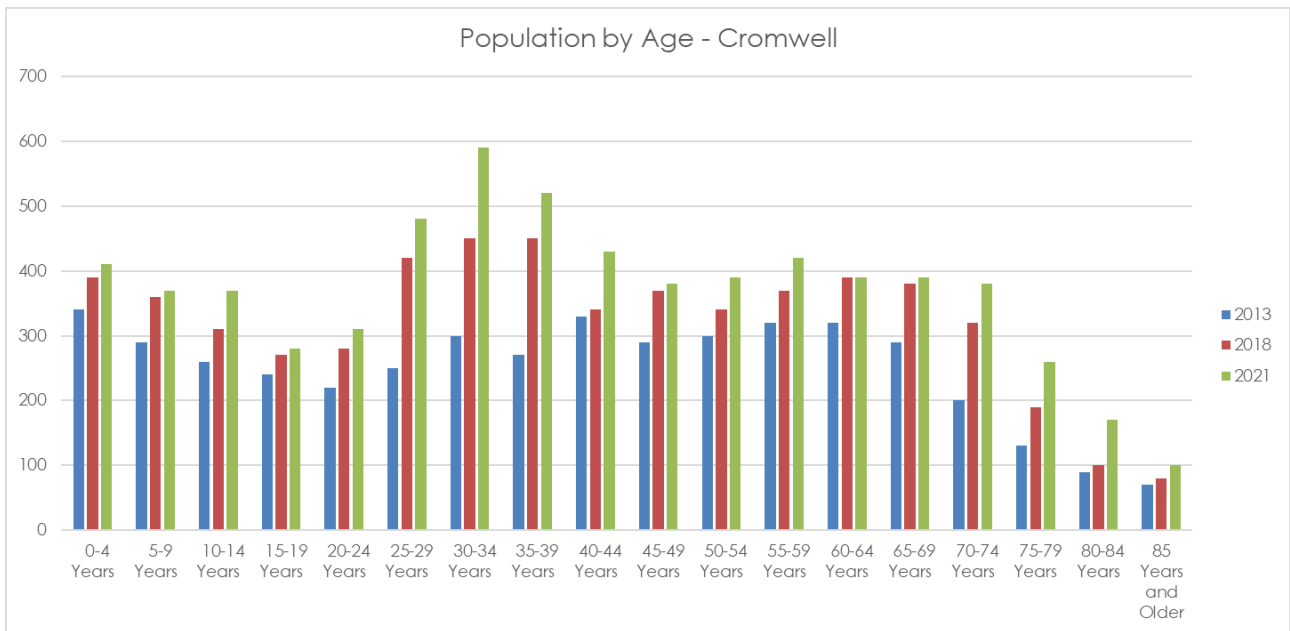


Figure 69: Historical population by Age Group - Cromwell

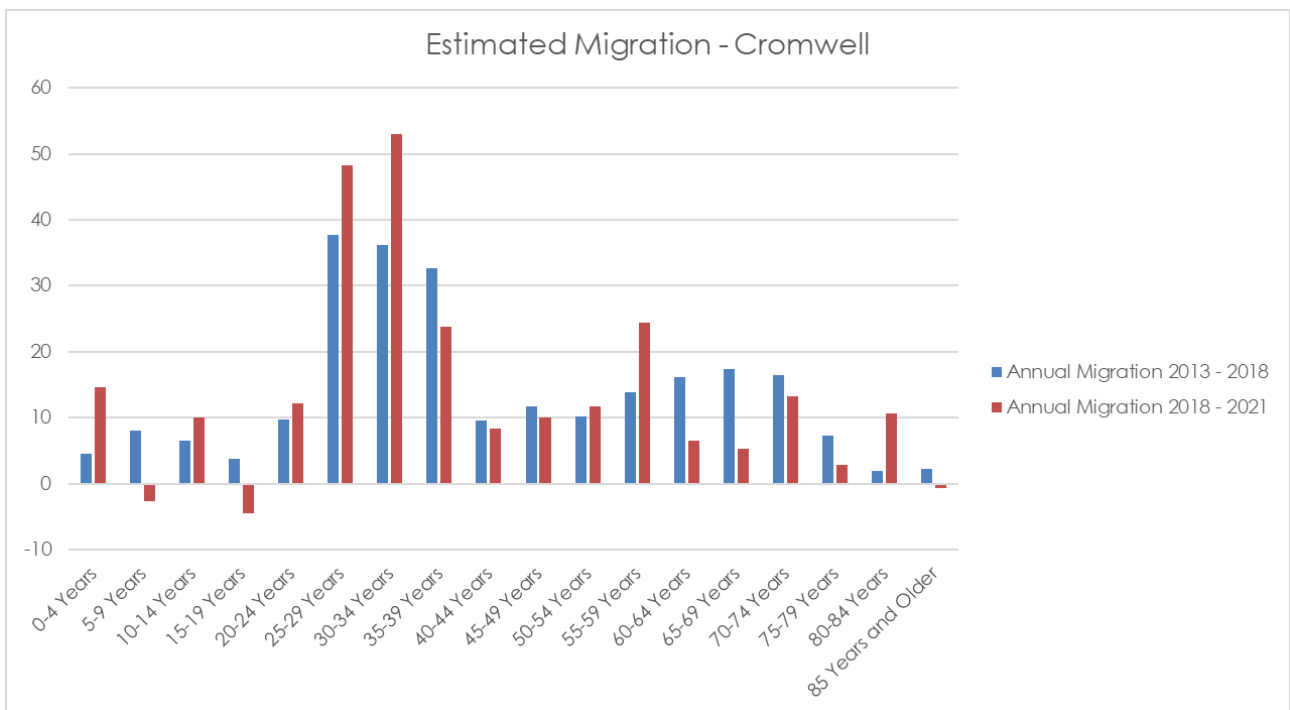


Figure 70: Estimated Net Migration by Age Group - Cromwell

## 5.2 Clyde

Clyde is a small village town in Central Otago with strong heritage. Clyde has become a tourism hub particularly for cyclists enjoying the Otago Central trails.

Clyde is currently undergoing construction of its reticulated wastewater system. This is occurring in stages over the next decade. This could increase growth pressure on Clyde as section sizes can be reduced and infill occur.



Figure 71: Area of Interest – Clyde SA2

### 5.2.1 EMPLOYMENT

Dunstan Hospital is based in Clyde, so there is a corresponding high percentage of health care and social assistance jobs. This sector has shown steady growth the last 3 years and continues gaining importance. Covid-19 appears to have had a very significant impact on the Accommodation and Food Services industry, where jobs are now less than half what they were 3 years ago.

Table 42. Employment growth by industry - Clyde

| Industry                              | Number of Employees in 2021 | % of workforce in 2021 | Average Annual Growth - last 3 years | Average Annual Growth - last 10 years | Average Annual Growth - Since 2001 |
|---------------------------------------|-----------------------------|------------------------|--------------------------------------|---------------------------------------|------------------------------------|
| Q Health Care and Social Assistance   | 220                         | 49%                    | 15                                   | 7                                     | 6                                  |
| H Accommodation and Food Services     | 75                          | 17%                    | -33                                  | 3                                     | 5                                  |
| E Construction                        | 30                          | 7%                     | 3                                    | 2                                     | 1                                  |
| P Education and Training              | 25                          | 6%                     | 4                                    | 0                                     | 0                                  |
| N Administrative and Support Services | 25                          | 6%                     | 10                                   | 1                                     | 0                                  |
| Other Industries                      | 72                          | 16%                    | -4                                   | 5                                     | 3                                  |
| <b>All Industries</b>                 | <b>450</b>                  | <b>100%</b>            | <b>-6</b>                            | <b>19</b>                             | <b>16</b>                          |

No changes were made to the employment forecast used in the 2020 projections.

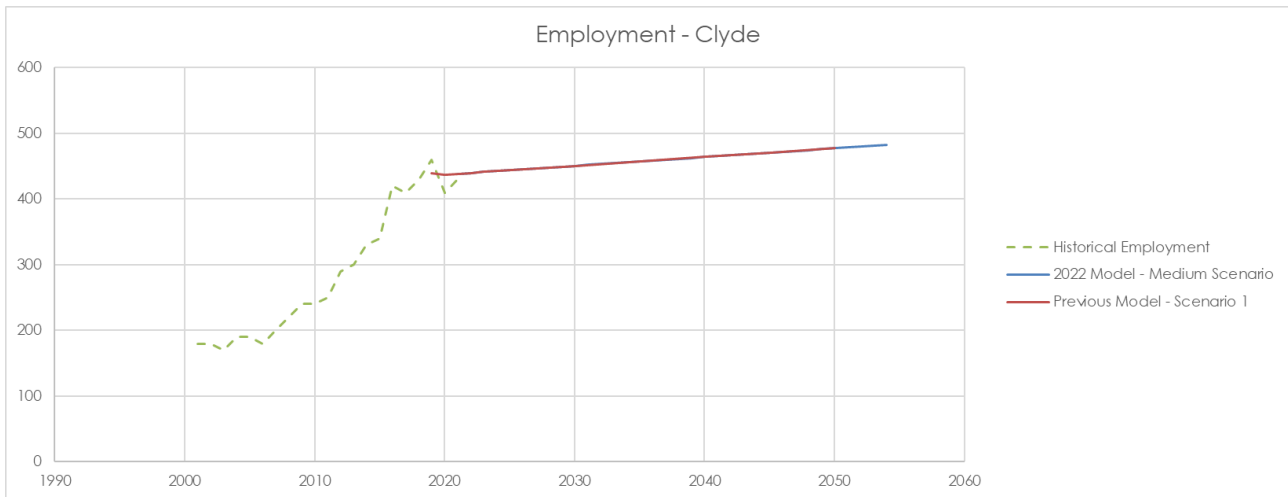


Figure 72: Employment Forecast - Clyde

### 5.2.2 MIGRATION

- Clyde has an old population and has seen little net migration during the last 8 years.
- Jobs in surrounding areas (Cromwell, Alexandra) considered as the most important driver for migration into Clyde due to commuting option.
- Another driver is retirees moving into Clyde for the lifestyle opportunities.
- Young people leave the area for other opportunities such as education and employment.
- Small elderly trend to move away from the area in their later years, likely in search of better care.

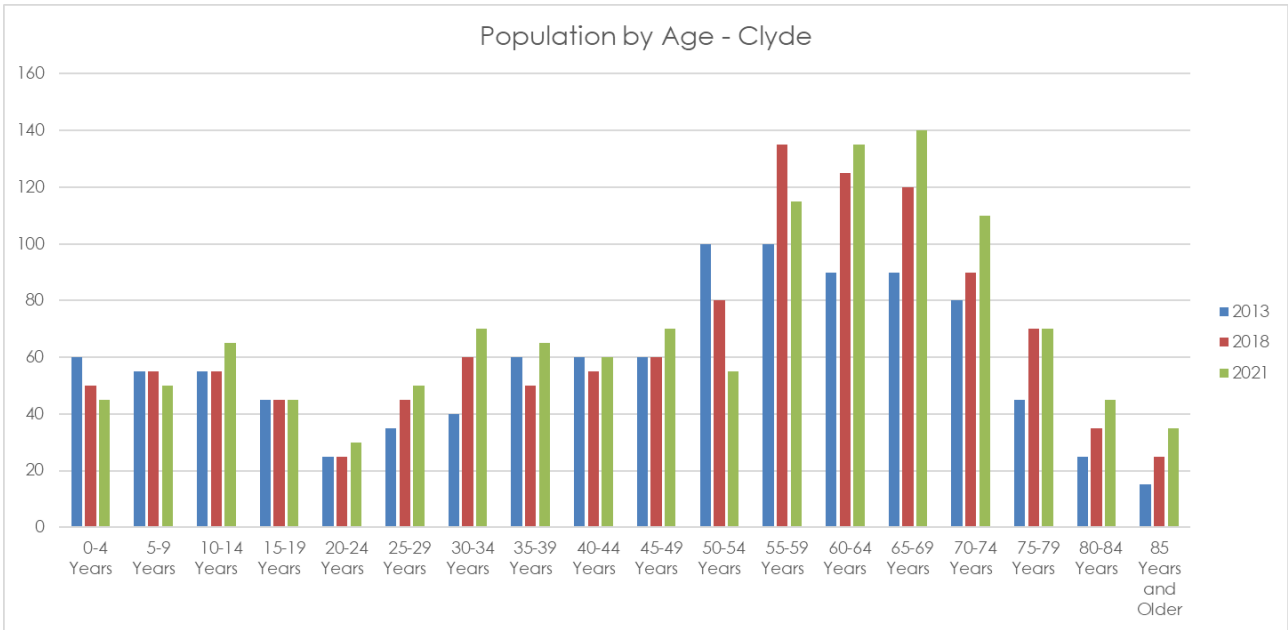


Figure 73: Historical population by Age Group - Clyde

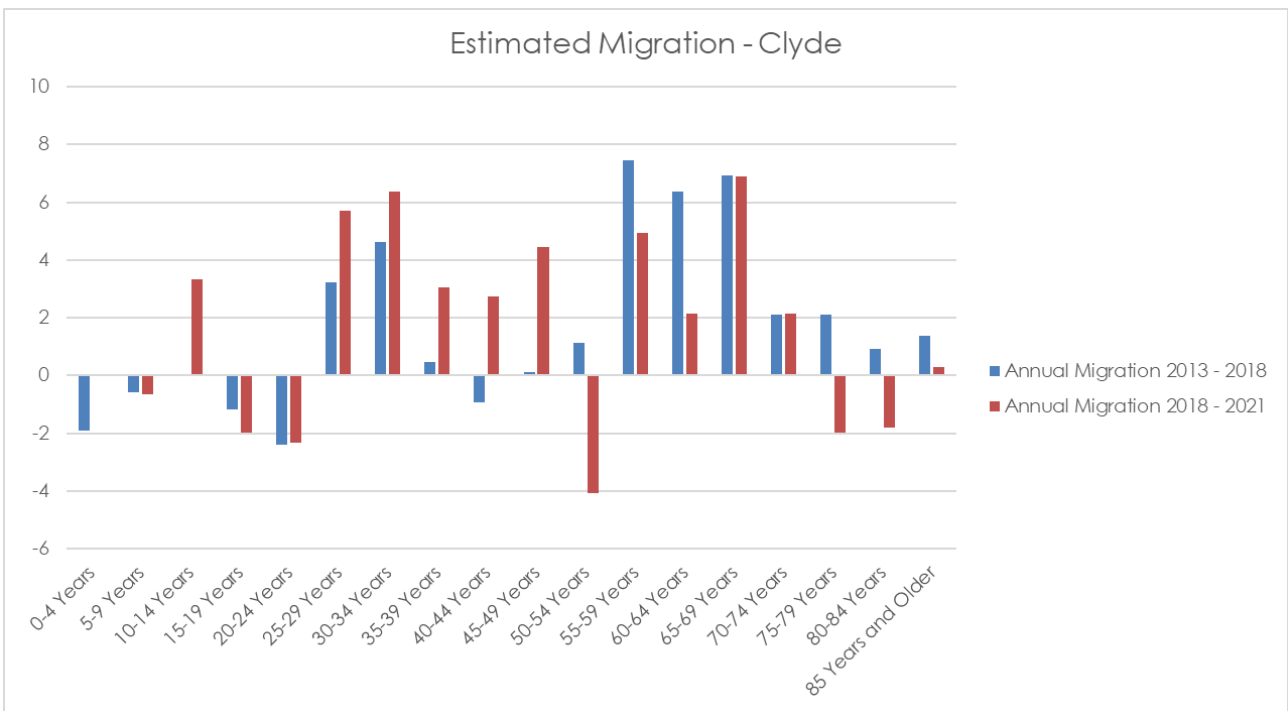


Figure 74: Estimated Net Migration by Age Group - Clyde

## 5.3 Alexandra

Historically, Alexandra was the largest town in CODC, only outgrown by Cromwell in the 2018. Alexandra has traditionally been the service town for the wider district; however, in recent times development in Cromwell has spread services over the two towns.

Alexandra comprises two SA2 area which are being treated as one area for the growth projections.

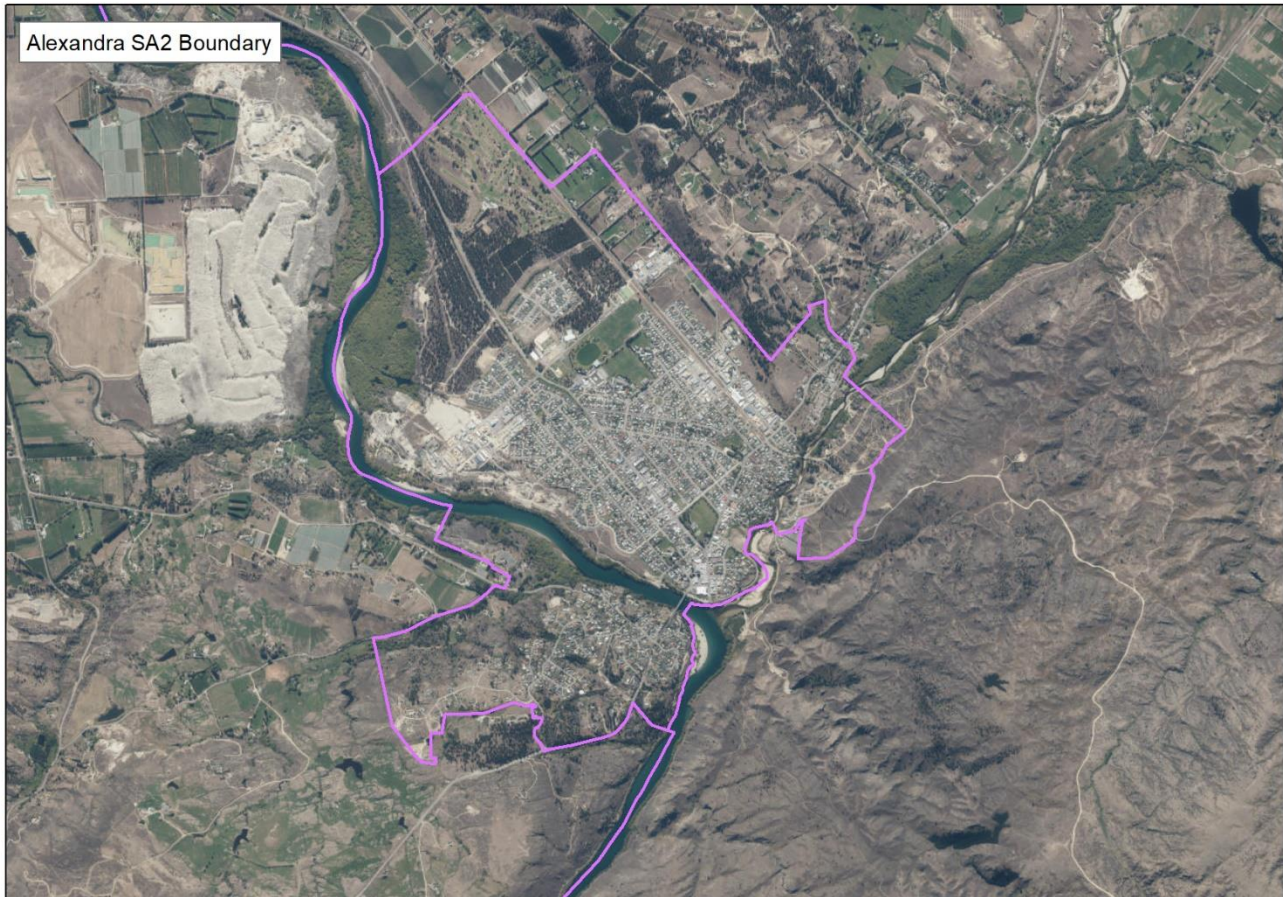


Figure 75: Area of Interest – Alexandra SA2s

### 5.3.1 EMPLOYMENT

As Alexandra is a service town for the rest of the district, the town contains a diverse range of employment opportunities.

Since 2001, there has been growth across most of the industries, with the major drivers of employment growth in the “Administrative and Support Services” and “Agriculture, Forestry and Fishing” sectors.

Employment has fallen in the previous three years. The larger decrease in “Administrative and Support Services” is explained below, while the decrease in the rest of the industries is likely temporary effects from Covid-19. There has been strong growth in construction in the previous three years.

Note that two of most prolific industries in Alexandra, “Administrative and Support Services” and “Agriculture, Forestry and Fishing”, include resourcing companies for the agriculture and horticulture sector. Some jobs recorded against these industries would actually be filled in other areas of the district. The decrease in these areas in the last few years is potentially due to these jobs being filled by local rather than foreign labour during the Covid-19 pandemic and being employed directly rather than through the resourcing services.



Table 43. Employment growth by industry - Alexandra

| Industry                                     | Number of Employees in 2021 | % of workforce in 2021 | Average Annual Growth - last 3 years | Average Annual Growth - last 10 years | Average Annual Growth - Since 2001 |
|--|-----------------------------|------------------------|--------------------------------------|---------------------------------------|------------------------------------|
| <b>N Administrative and Support Services</b> | 630                         | 16%                    | -118                                 | 24                                    | 48                                 |
| <b>E Construction</b>                        | 620                         | 15%                    | 38                                   | 4                                     | 3                                  |
| <b>G Retail Trade</b>                        | 510                         | 13%                    | -20                                  | -3                                    | -2                                 |
| <b>A Agriculture, Forestry and Fishing</b>   | 410                         | 10%                    | -5                                   | 27                                    | 13                                 |
| <b>Q Health Care and Social Assistance</b>   | 370                         | 9%                     | -3                                   | 4                                     | 3                                  |
| <b>Other Industries</b>                      | 1524                        | 38%                    | -20                                  | 11                                    | 6                                  |
| <b>All Industries</b>                        | <b>4,060</b>                | <b>100%</b>            | <b>-127</b>                          | <b>68</b>                             | <b>70</b>                          |

Employment has been re-forecast for the 2022 projections. It is expected that Alexandra will continue to grow as a service and support hub while the district continues to grow. The rate of growth has been set to the average annual growth since 2001.

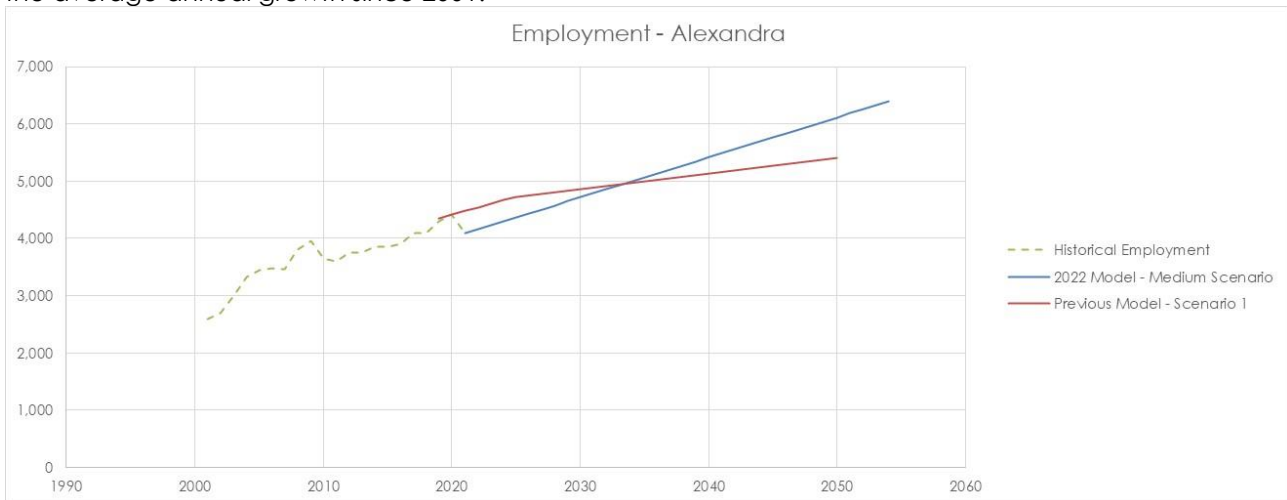


Figure 76: Employment Forecast - Alexandra

### 5.3.2 MIGRATION

- Migration in Alexandra is driven by employment, which brings young industrial people to the area as well as their families.
- Retirees move to Alexandra for the lifestyle opportunities.
- Young people leave the area for other opportunities such as education and employment.
- Small elderly trend to move away from the area in their later years, likely in search of better care.

These trends are reflected below through the population by age and net migration figures. Net migration set to 109 people for 2022 and follows employment trend shown in Figure 76.

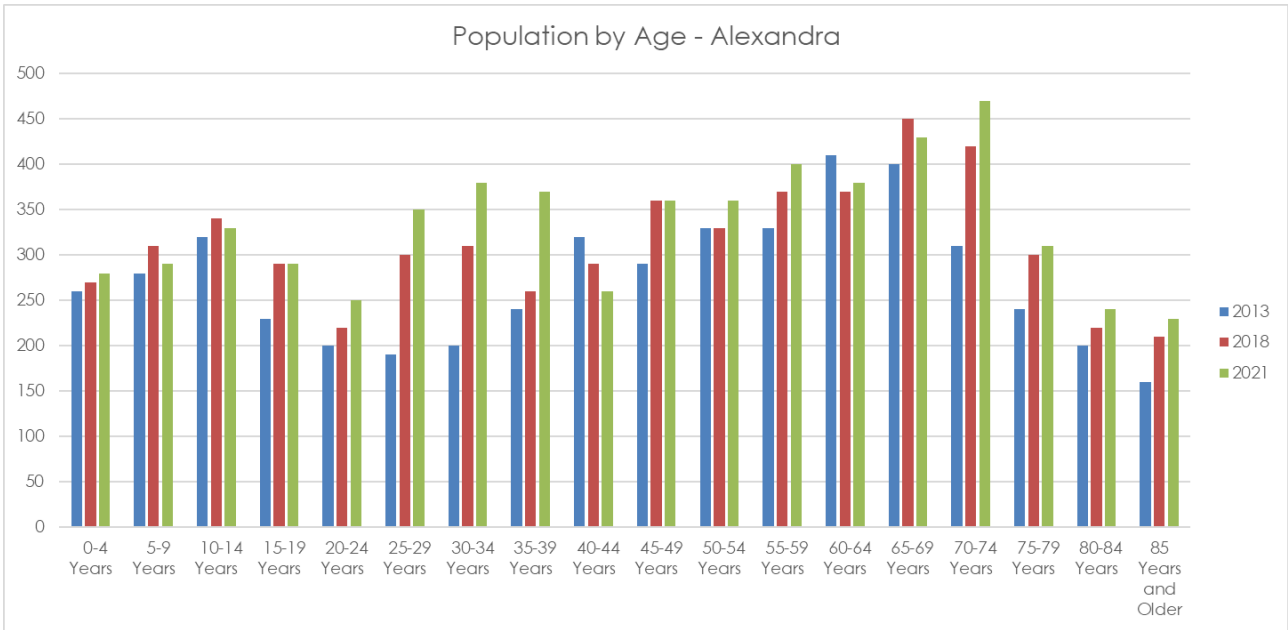


Figure 77: Historical population by Age Group - Alexandria

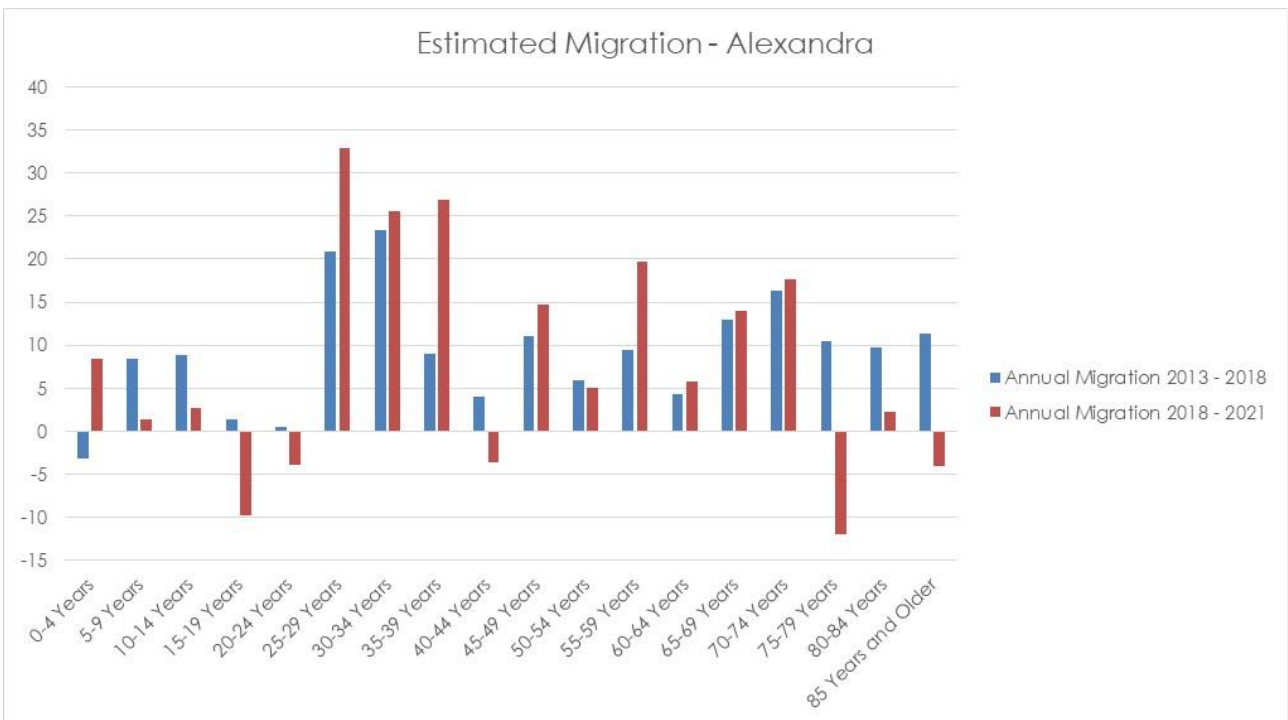


Figure 78: Estimated Net Migration by Age Group - Alexandria

## 5.4 Dunstan-Galloway

Dunstan-Galloway has developed as a rural residential living area on the outskirts of Alexandra. Since 2006, Dunstan-Galloway has been growing faster than Alexandra. To date development has been relatively ad-hoc.



Figure 79: Area of Interest – Dunstan Galloway SA2

### 5.4.1 EMPLOYMENT

Dunstan-Galloway does not have a large number of jobs as the majority of residents travel to nearby Alexandra for work. “Agriculture, Forestry and Fishing” is by far the most prominent industry.

Table 44: Employment growth by industry - Dunstan-Galloway

| Industry   | Number of Employees in 2021 | % of workforce in 2021 | Average Annual Growth - last 3 years | Average Annual Growth - last 10 years | Average Annual Growth - Since 2001 |
|--|-----------------------------|------------------------|--------------------------------------|---------------------------------------|------------------------------------|
| <b>A Agriculture, Forestry and Fishing</b>               | 300                         | 57%                    | 70                                   | 12                                    | 6                                  |
| <b>E Construction</b>                                    | 65                          | 12%                    | 5                                    | 3                                     | 0                                  |
| <b>M Professional, Scientific and Technical Services</b> | 40                          | 8%                     | 0                                    | 2                                     | 2                                  |
| <b>F Wholesale Trade</b>                                 | 35                          | 7%                     | 9                                    | 2                                     | 1                                  |
| <b>N Administrative and Support Services</b>             | 20                          | 4%                     | -3                                   | -8                                    | -8                                 |
| <b>Other Industries</b>                                  | 69                          | 13%                    | -17                                  | -1                                    | 3                                  |
| <b>All Industries</b>                                    | <b>530</b>                  | <b>100%</b>            | <b>65</b>                            | <b>10</b>                             | <b>4</b>                           |

No changes were made to the employment forecast used in the 2020 projections.

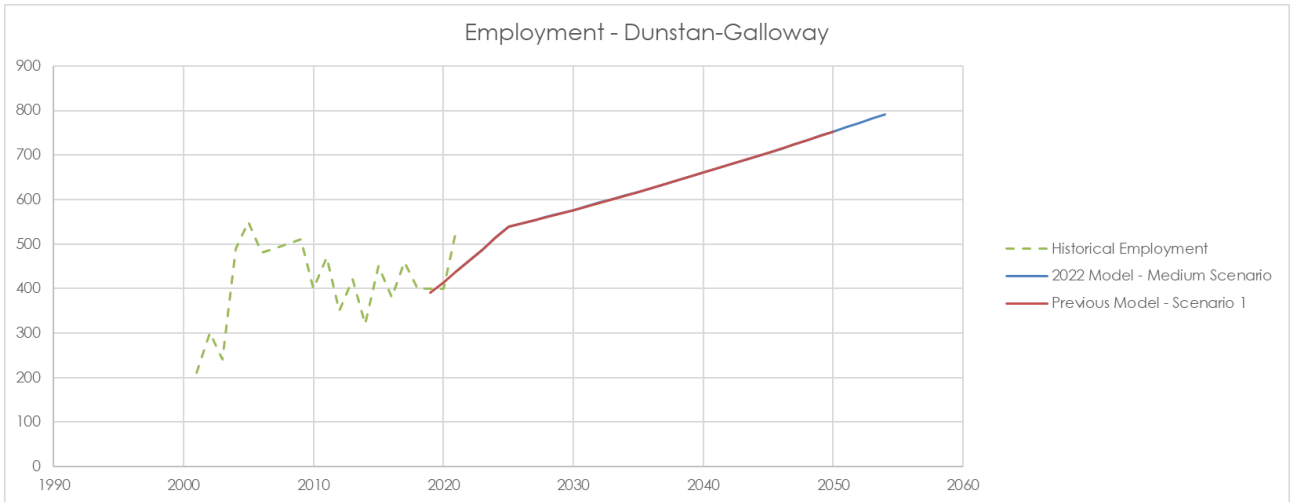


Figure 80: Employment Forecast - Dunstan-Galloway

#### 5.4.2 MIGRATION

- Migration to Dunstan-Galloway is largely for lifestyle, typically attracting those later in their working lives or in retirement.
- Young people (15-24 years old) tend to move away for other opportunities such as education and other employment opportunities not offered locally.
- Elderly tend to move away from the area in their later years, likely in search of better care.

These trends are reflected below through the population by age and net migration figures.

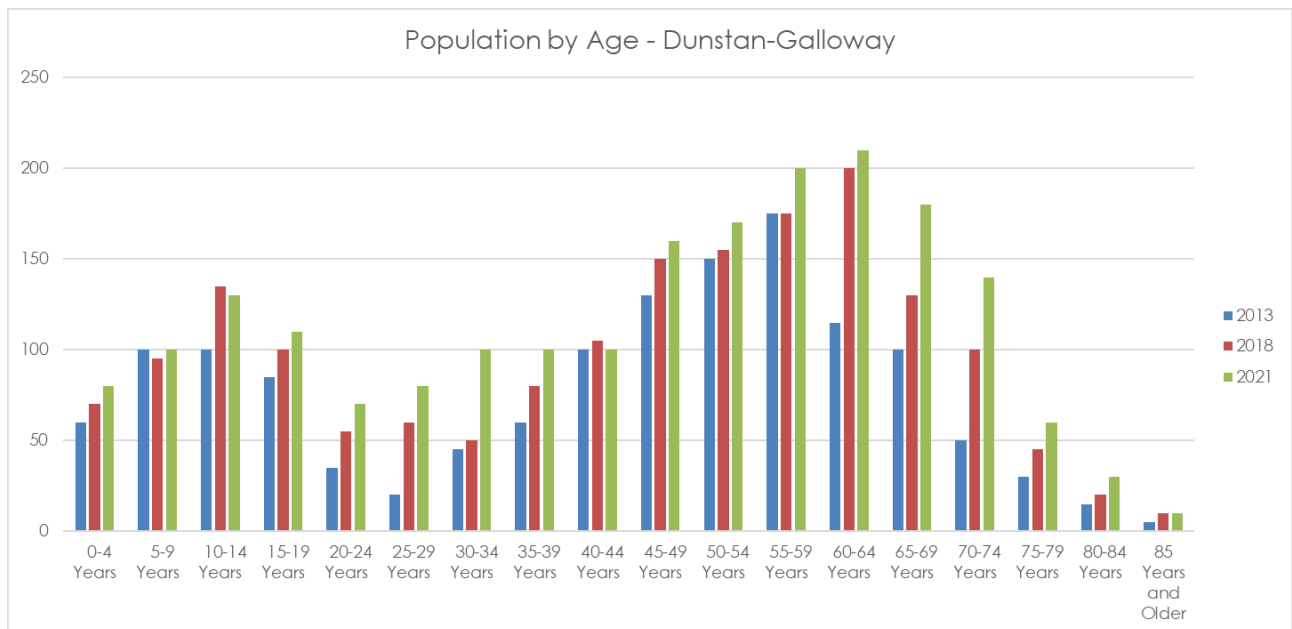


Figure 81: Historical population by Age Group - Dunstan Galloway

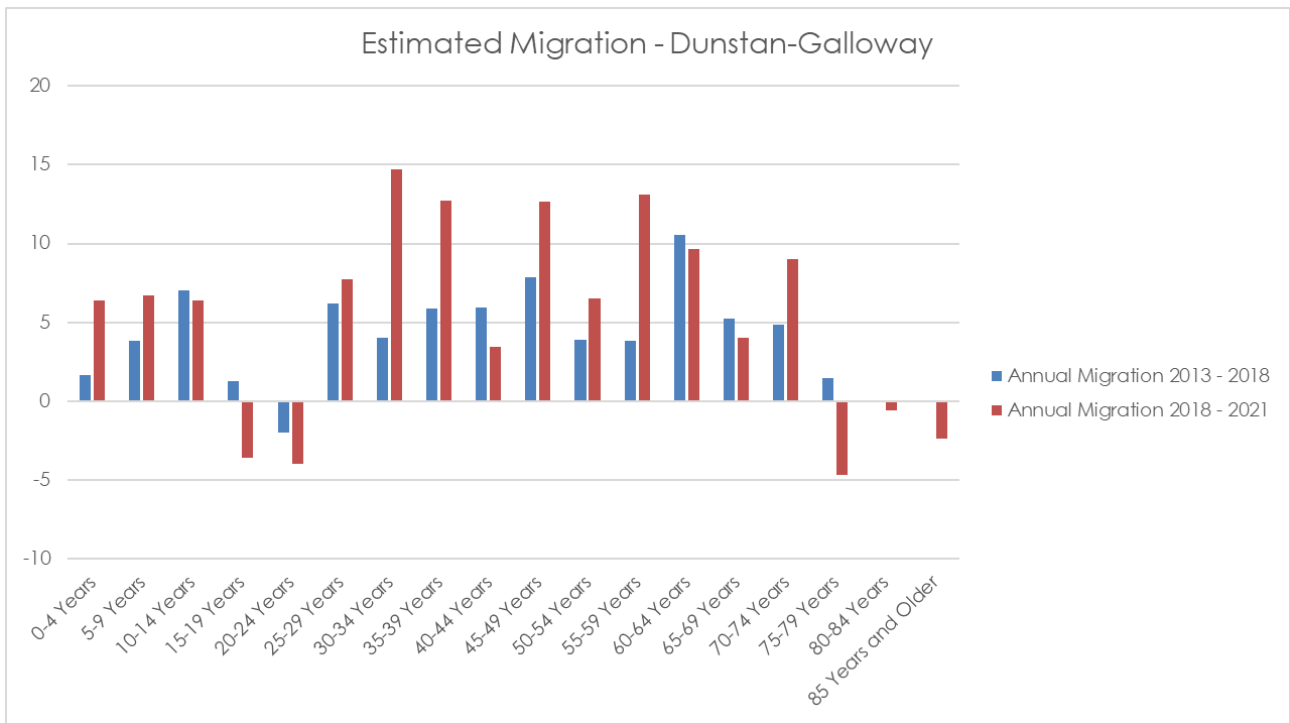


Figure 82: Estimated Net Migration by Age Group - Dunstan-Galloway

## 5.5 Earnsclough

Earnsclough is a traditional orcharding area in Central Otago but as the whole district has gained popularity more people are choosing to live amongst the fruit trees and vines. This is also causing reverse sensitivity issues.

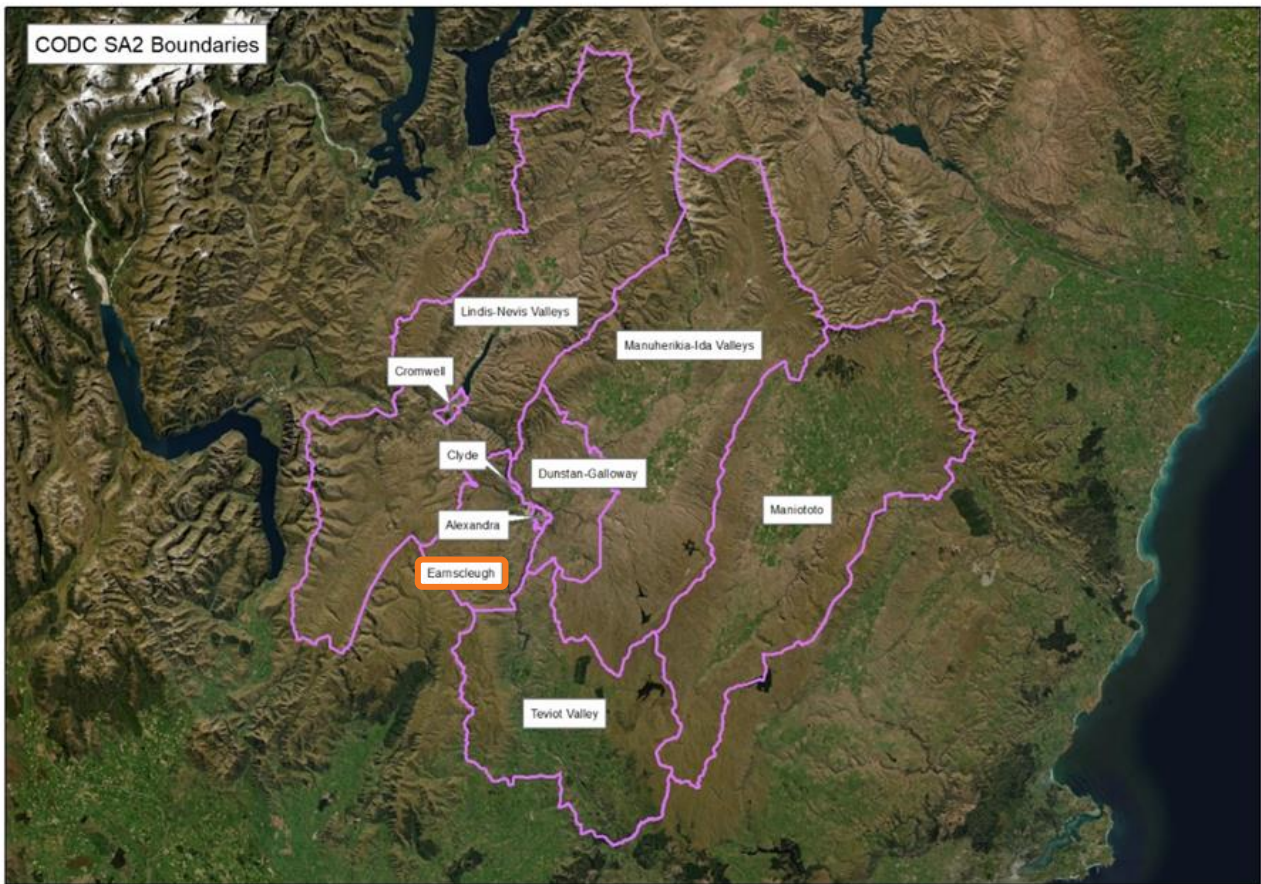


Figure 83: Area of Interest – Earnsclough SA2

### 5.5.1 EMPLOYMENT

Earnsclough is a traditional orcharding area. This remains true today as seen through agriculture, forestry and fishing's employment share.

Table 45. Employment growth by industry - Earnsclough

| Industry  | Number of Employees in 2021 | % of workforce in 2021 | Average Annual Growth - last 3 years | Average Annual Growth - last 10 years | Average Annual Growth - Since 2001 |
|---|-----------------------------|------------------------|--------------------------------------|---------------------------------------|------------------------------------|
| <b>A Agriculture, Forestry and Fishing</b>          | 660                         | 80%                    | -20                                  | 6                                     | 4                                  |
| <b>D Electricity, Gas, Water and Waste Services</b> | 55                          | 7%                     | -10                                  | 1                                     | 2                                  |
| <b>F Wholesale Trade</b>                            | 25                          | 3%                     | 0                                    | 2                                     | 2                                  |
| <b>Q Health Care and Social Assistance</b>          | 21                          | 3%                     | 6                                    | 2                                     | 1                                  |
| <b>C Manufacturing</b>                              | 15                          | 2%                     | 0                                    | 0                                     | 1                                  |
| <b>Other Industries</b>                             | 51                          | 6%                     | -9                                   | -4                                    | 2                                  |
| <b>All Industries</b>                               | <b>830</b>                  | <b>100%</b>            | <b>-33</b>                           | <b>7</b>                              | <b>11</b>                          |

No changes were made to the employment forecast used in the 2020 projections.

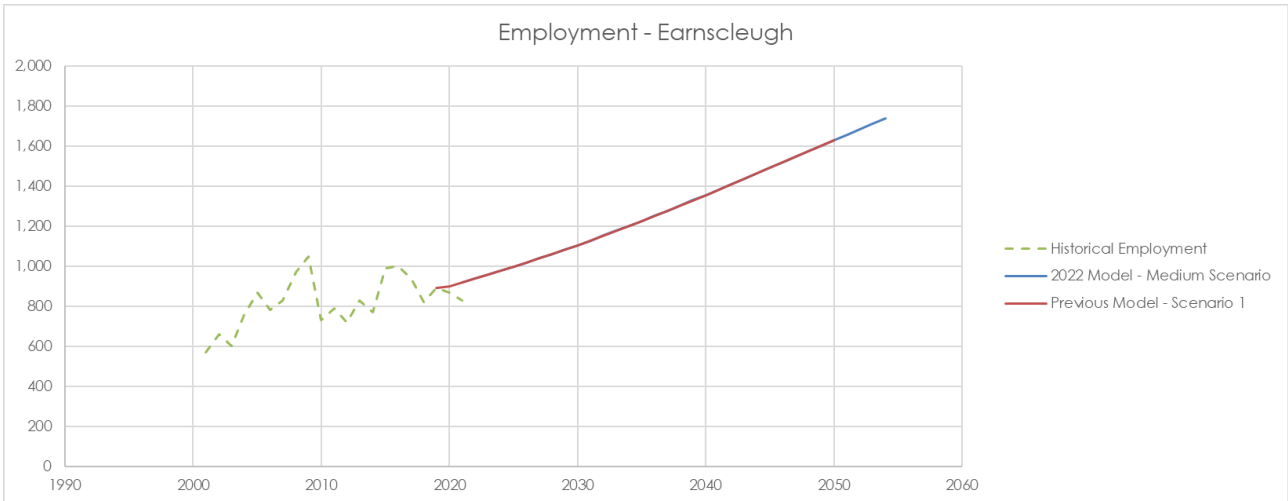


Figure 84: Employment Forecast - Earnsclough

### 5.5.2 MIGRATION

- Migration to Earnsclough is largely for lifestyle, typically attracting those later in their working lives or in retirement.
- Young people tend to move away for other opportunities such as education and other employment opportunities not offered locally.
- Elderly tend to move away from the area in their later years, likely in search of better care.

These trends are reflected below through the population by age and net migration figures.

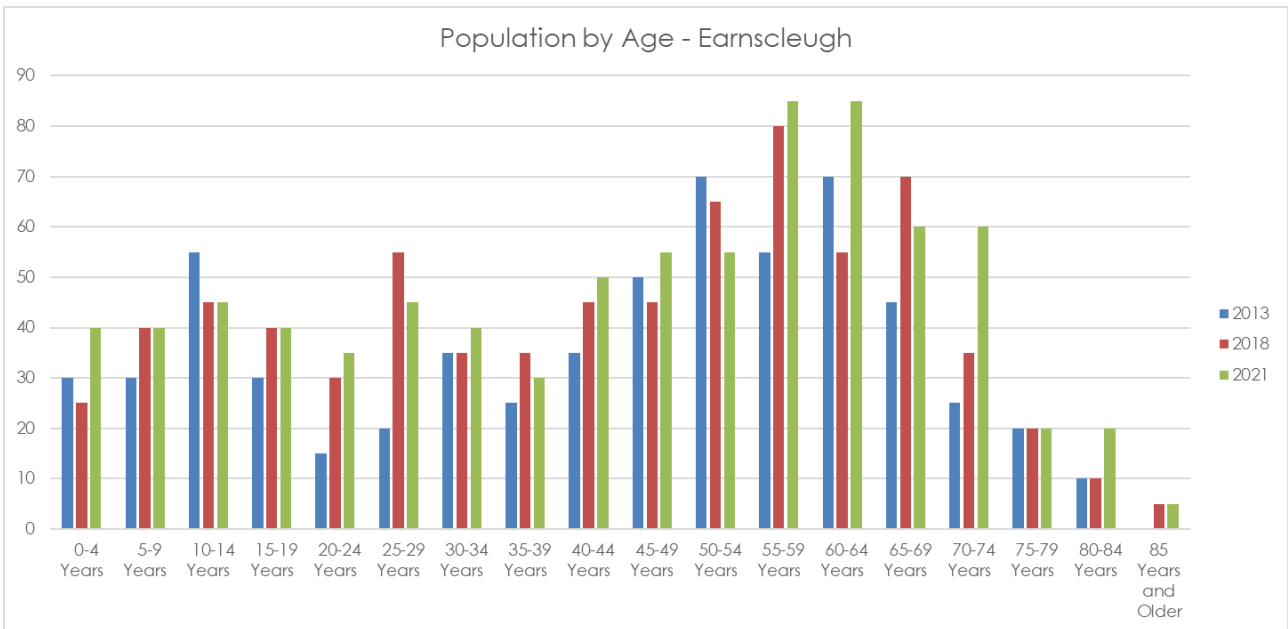


Figure 85: Historical population by Age Group - Earnsclough

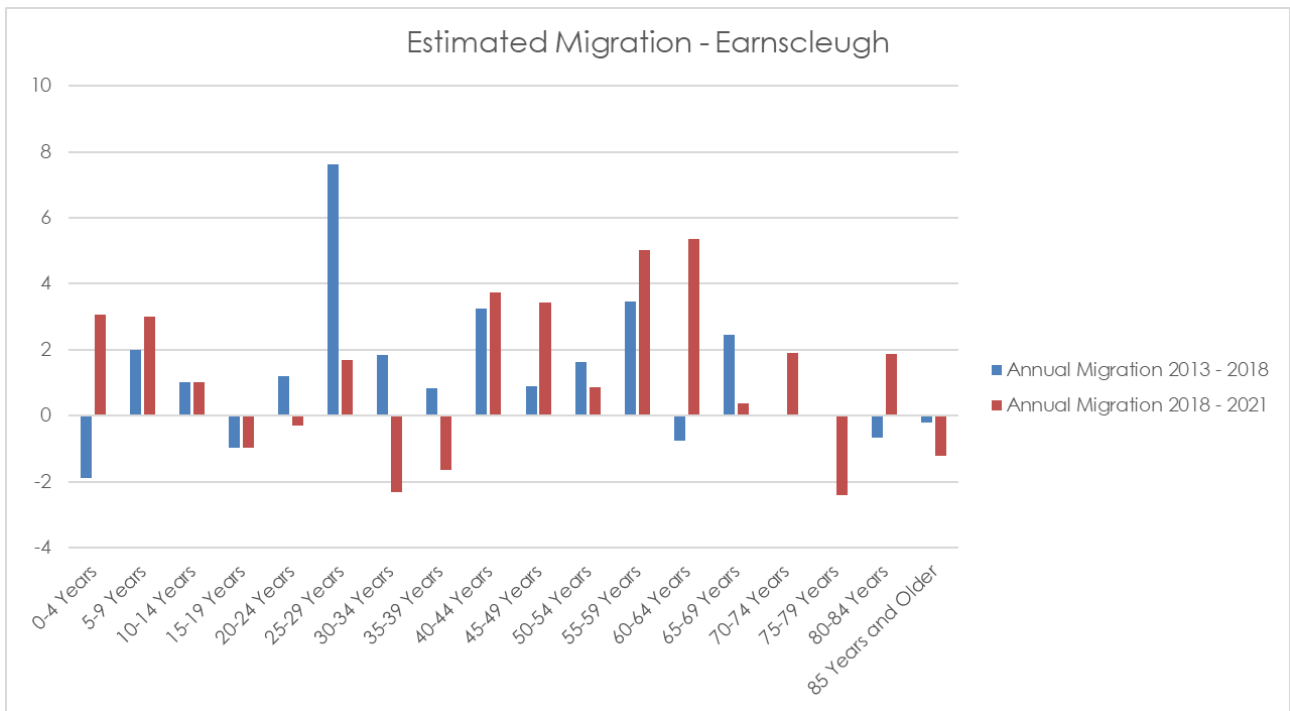


Figure 86: Estimated Net Migration by Age Group - Earnsleugh



## 5.6 Manuherikia-Ida Valleys

Similar to Lindis-Nevis and the Maniototo, Manuherikia-Ida Valleys are traditionally pastoral farming areas with low population density. There is almost no net migration to the Manuherikia-Ida Valleys. If people do move to the area, they are driven by employment, lifestyle and retirement.

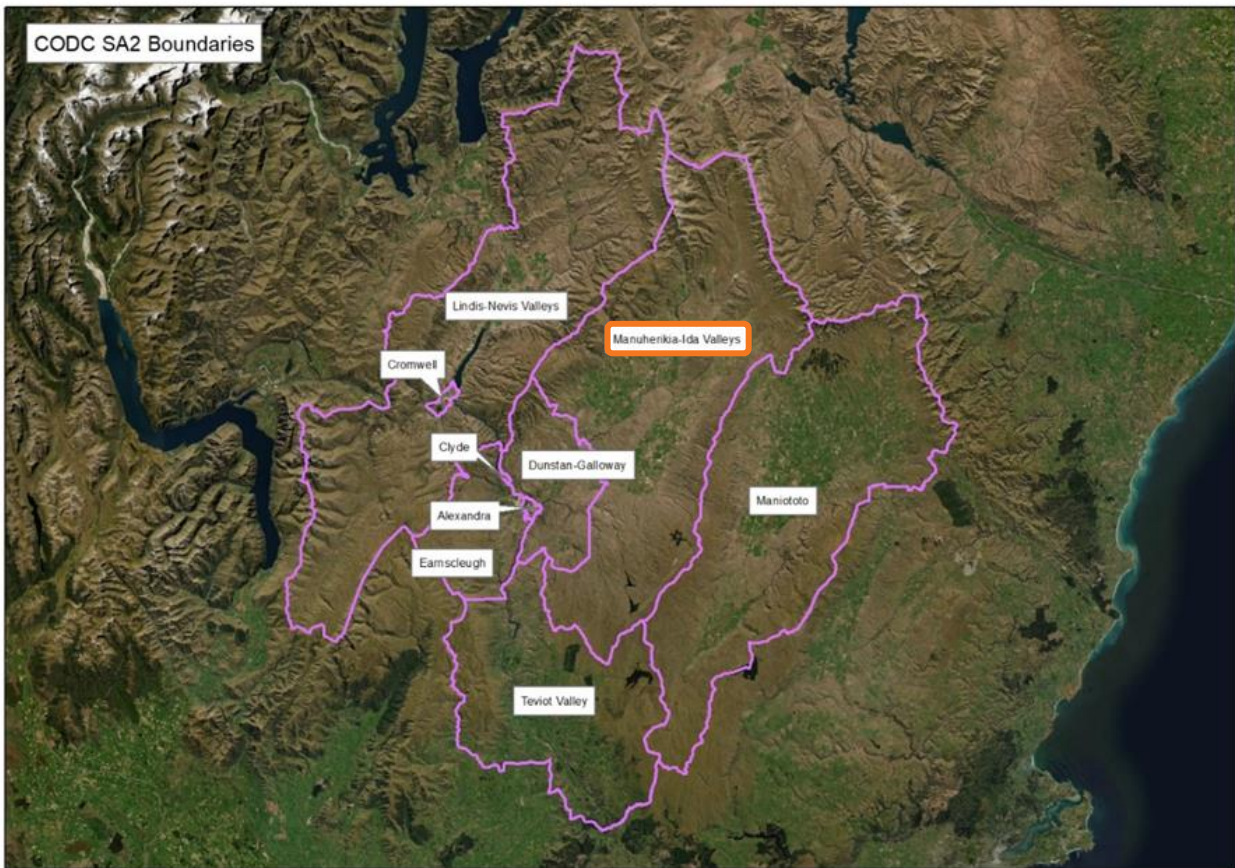


Figure 87: Area of Interest – Manuherikia-Ida Valleys SA2

### 5.6.1 EMPLOYMENT

Overall, there hasn't been any growth in job opportunities the last 10 years in this area. The leading industry, Agriculture, has seen a significant loss of jobs during the last 3 years.

Table 46. Employment growth by industry – Manuherikia-Ida Valleys

| Industry   | Number of Employees in 2021 | % of workforce in 2021 | Average Annual Growth - last 3 years | Average Annual Growth - last 10 years | Average Annual Growth - Since 2001 |
|--|-----------------------------|------------------------|--------------------------------------|---------------------------------------|------------------------------------|
| <b>A Agriculture, Forestry and Fishing</b>               | 160                         | 50%                    | -15                                  | -3                                    | 1                                  |
| <b>H Accommodation and Food Services</b>                 | 45                          | 14%                    | 0                                    | 1                                     | 2                                  |
| <b>M Professional, Scientific and Technical Services</b> | 25                          | 8%                     | 0                                    | 2                                     | 0                                  |
| <b>E Construction</b>                                    | 18                          | 6%                     | 5                                    | 1                                     | 1                                  |
| <b>I Transport, Postal and Warehousing</b>               | 15                          | 5%                     | 0                                    | -1                                    | 0                                  |
| <b>Other Industries</b>                                  | 54                          | 17%                    | -9                                   | 0                                     | 0                                  |
| <b>All Industries</b>                                    | <b>320</b>                  | <b>100%</b>            | <b>-20</b>                           | <b>-1</b>                             | <b>4</b>                           |

No changes were made to the employment forecast used in the 2020 projections.

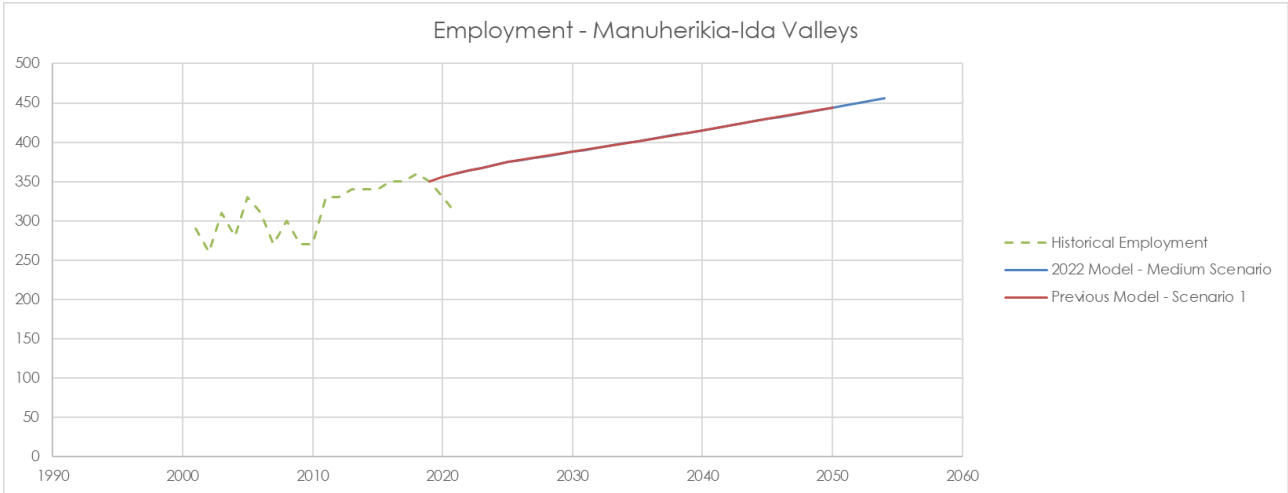


Figure 88: Employment Forecast – Manuherikia-Ida Valleys

5.6.2 MIGRATION

- There is a small net migration into the Manuherikia-Ida Valleys.
- Migration was increased for the 2022 projections to be more aligned with the net migration seen the last few years.
- In recent years there has been an increase in younger working adults with their children migrating into the area.
- Elderly tend to move away from the area in their later years, likely in search of better care.

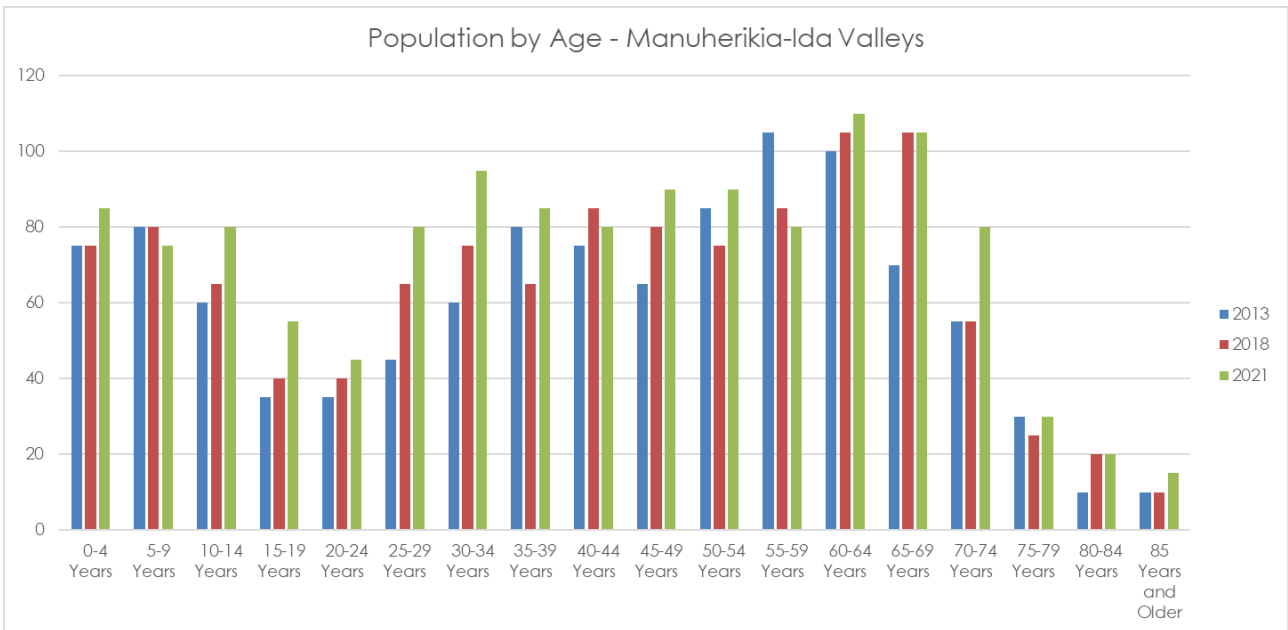
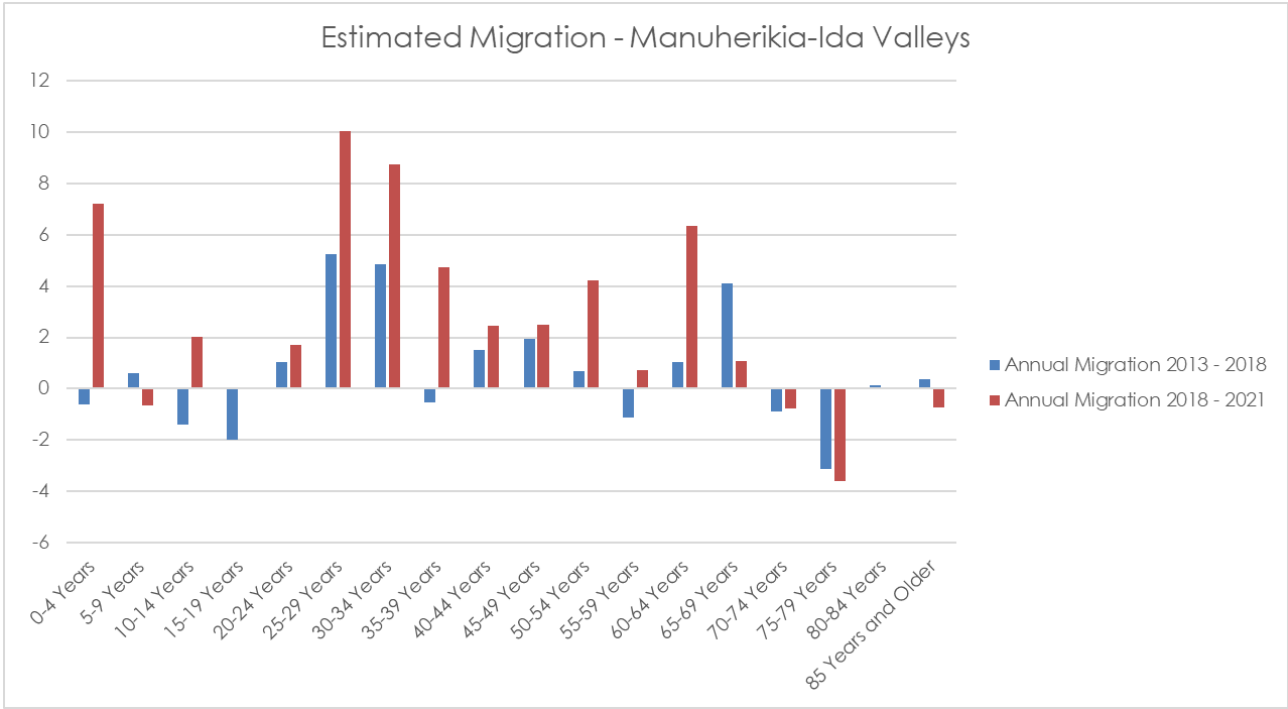


Figure 89: Historical population by Age Group - Manuherikia-Ida Valleys



## 5.7 Lindis-Nevis Valleys

Lindis-Nevis Valleys are perhaps the area that has experienced some of the greatest changes in the last two decades and has been the fastest growing area since 2006. Transitioning from a traditional agricultural area that was vast and dry to a highly productive grape, cherry and fruit growing area and becoming home to various subdivisions, both residential and rural residential.

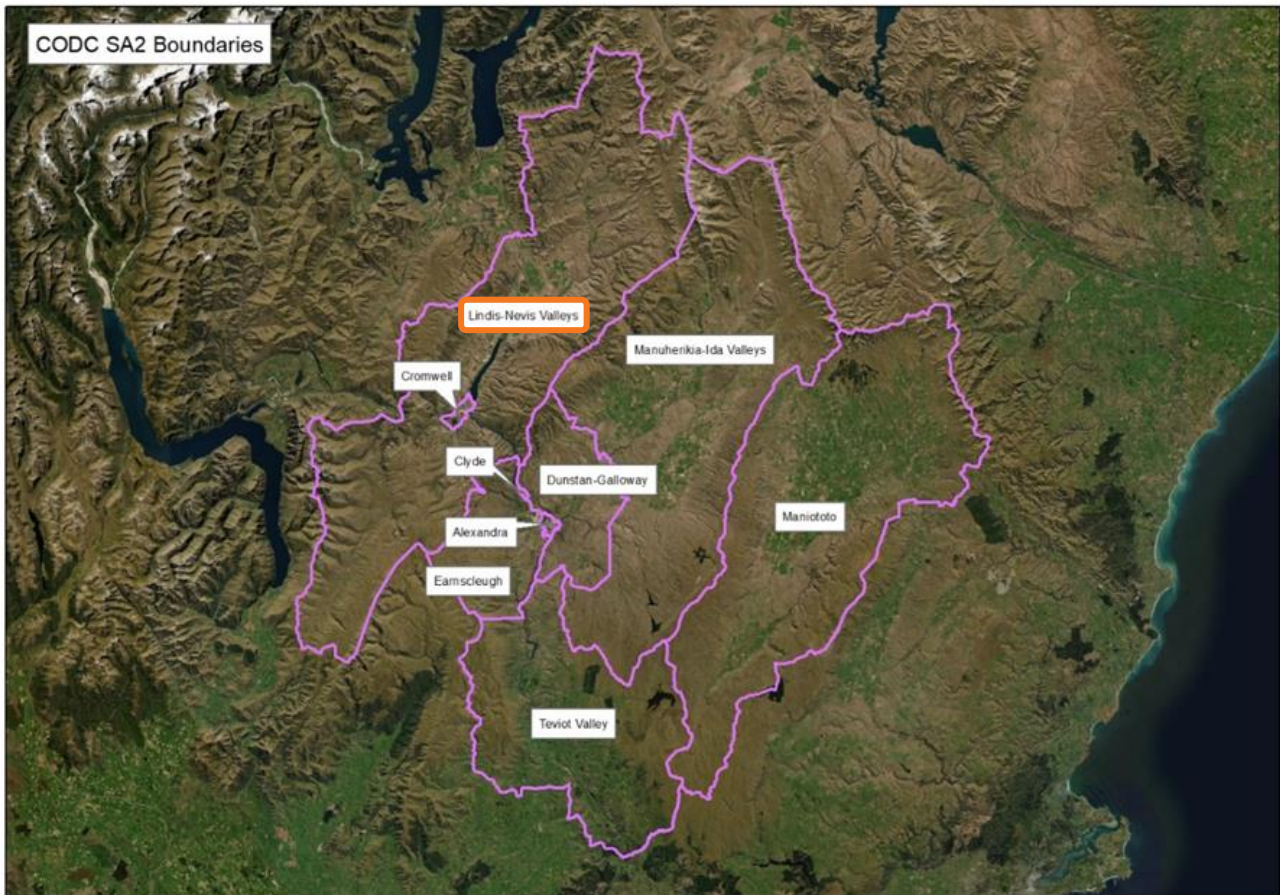


Figure 90: Area of Interest – Lindis-Nevis Valleys SA2

### 5.7.1 EMPLOYMENT

The Lindis-Nevis Valleys are a large, traditionally pastoral farming area. Over the last twenty to thirty years a number of developments/subdivisions surrounding Cromwell have been built and vineyards and orchards have been developed. These activities have significantly increased the population but also diversified the industries in the area.

Table 47. Employment growth by industry – Lindis-Nevis Valleys

| Industry                                     | Number of Employees in 2021 | % of workforce in 2021 | Average Annual Growth - last 3 years | Average Annual Growth - last 10 years | Average Annual Growth - Since 2001 |
|--|-----------------------------|------------------------|--------------------------------------|---------------------------------------|------------------------------------|
| <b>A Agriculture, Forestry and Fishing</b>   | 2,400                       | 70%                    | 500                                  | 86                                    | 83                                 |
| <b>N Administrative and Support Services</b> | 360                         | 11%                    | 138                                  | 26                                    | 7                                  |
| <b>E Construction</b>                        | 140                         | 4%                     | -10                                  | 15                                    | 7                                  |
| <b>F Wholesale Trade</b>                     | 120                         | 4%                     | -5                                   | 12                                    | 6                                  |
| <b>C Manufacturing</b>                       | 95                          | 3%                     | 3                                    | -7                                    | -2                                 |
| <b>Other Industries</b>                      | 306                         | 9%                     | 7                                    | 12                                    | 9                                  |
| <b>All Industries</b>                        | <b>3,420</b>                | <b>100%</b>            | <b>632</b>                           | <b>145</b>                            | <b>111</b>                         |

There has been a very strong growth in employment during the last 3 years, significantly exceeding the projections made during in 2020. Thus, employment for this area has been re-forecasted for the 2022 projections to better align with the latest information. The growth rate has been set to the average annual growth since 2001.

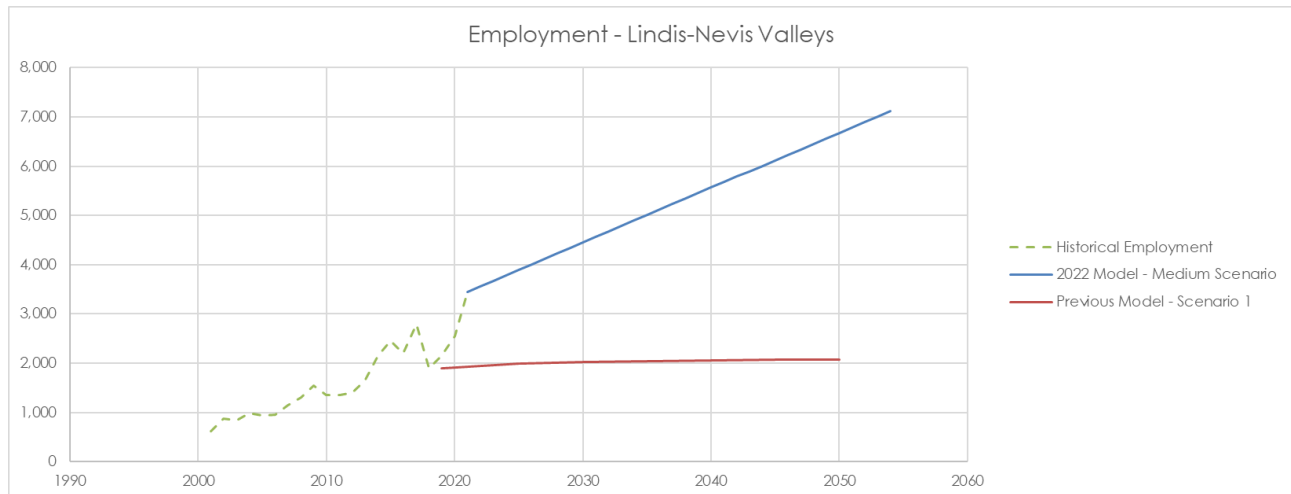


Figure 91: Employment Forecast – Lindis-Nevis Valleys

### 5.7.2 MIGRATION

- Migration to Lindis-Nevis has been driven by employment growth and lifestyle reasons in recent years.
- The area is attracting people of all ages, from young families, through to people in their later working years and those in retirement. This is reflected on a positive net migration for almost all age groups.
- Migration also driven by employment in neighbouring Cromwell, Queenstown, Wanaka, and elsewhere in CODC.
- Elderly tend to move away from the area in their later years, likely in search of better healthcare.
- Migration for the 2022 projections has been set to follow 2013 – 2018 trends.

These trends are reflected below through the population by age and net migration figures.

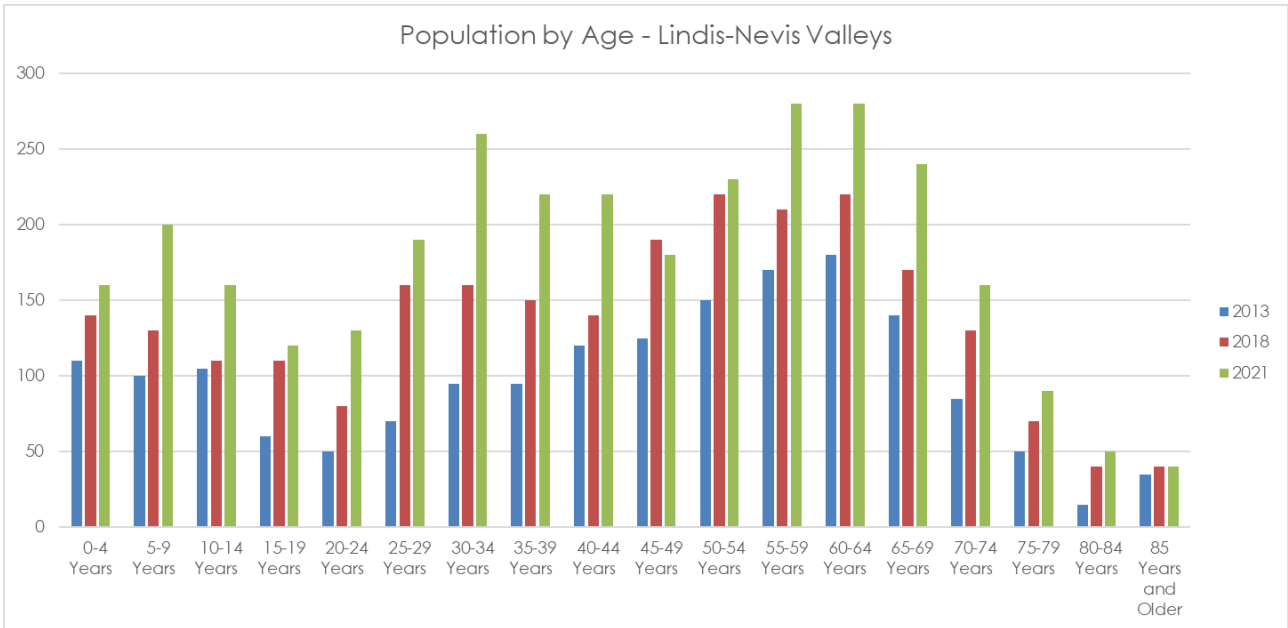


Figure 92: Historical population by Age Group – Lindis-Nevis Valleys

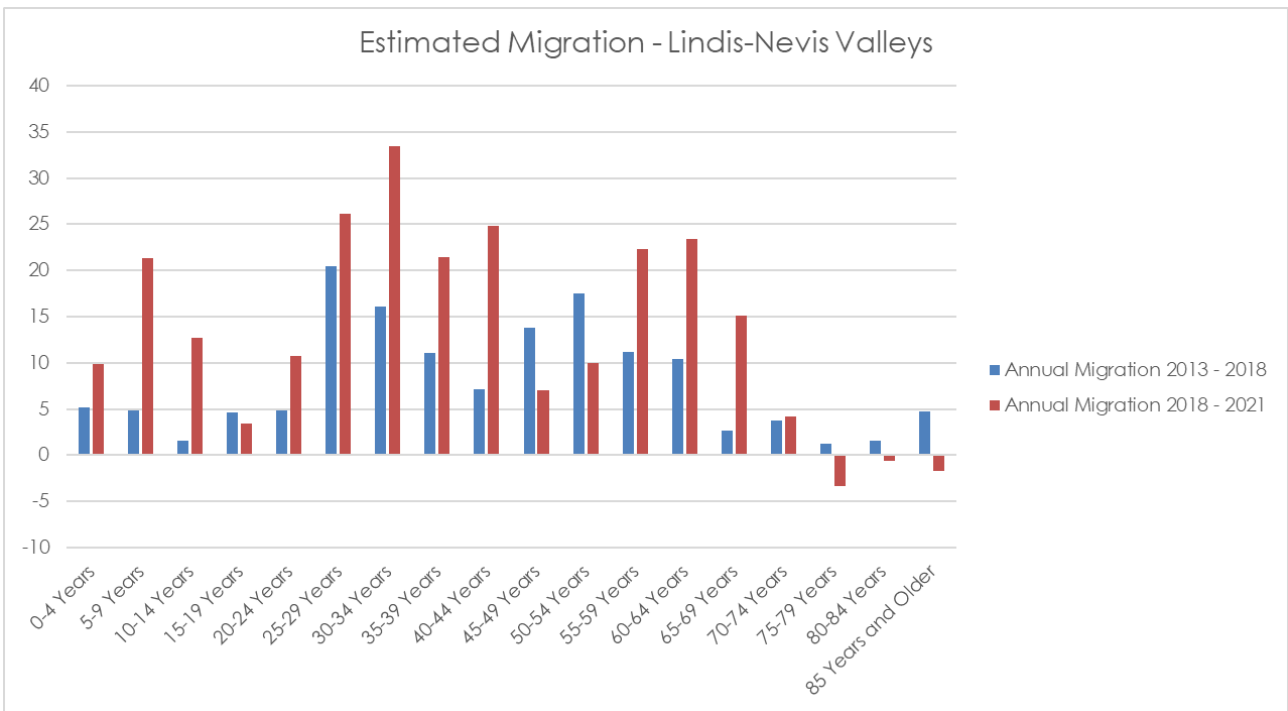


Figure 93: Estimated Net Migration by Age Group – Lindis-Nevis Valleys

## 5.8 Teviot Valley

Teviot Valley is an area strong in horticulture and agriculture. There is almost no net migration to the Teviot Valley.

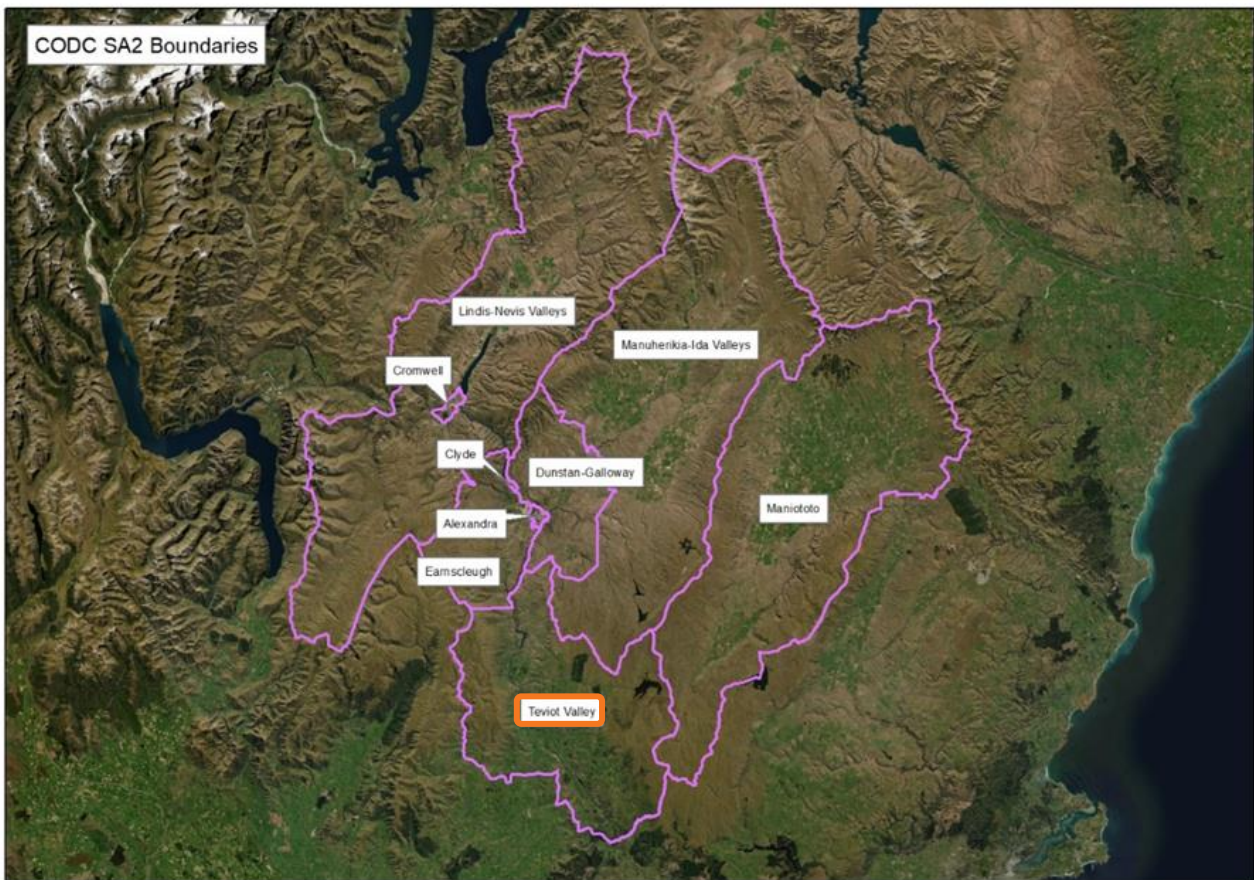


Figure 94: Area of Interest – Teviot Valley SA2

### 5.8.1 EMPLOYMENT

Teviot Valley is an area dominated by horticulture and agriculture, which is reflected in the types of key industries in the area. There has been steady growth in this field during the last 3 years. All other industries have shown little or no growth.

Table 48. Employment growth by industry – Teviot Valley

| Industry                                     | Number of Employees in 2021 | % of workforce in 2021 | Average Annual Growth - last 3 years | Average Annual Growth - last 10 years | Average Annual Growth - Since 2001 |
|--|-----------------------------|------------------------|--------------------------------------|---------------------------------------|------------------------------------|
| <b>A Agriculture, Forestry and Fishing</b>   | 730                         | 68%                    | 30                                   | 22                                    | 1                                  |
| <b>N Administrative and Support Services</b> | 60                          | 6%                     | -5                                   | -3                                    | -1                                 |
| <b>P Education and Training</b>              | 55                          | 5%                     | 3                                    | -1                                    | 0                                  |
| <b>E Construction</b>                        | 45                          | 4%                     | 0                                    | 3                                     | 1                                  |
| <b>G Retail Trade</b>                        | 45                          | 4%                     | 0                                    | -1                                    | 1                                  |
| <b>Other Industries</b>                      | 137                         | 13%                    | -13                                  | -5                                    | -2                                 |
| <b>All Industries</b>                        | <b>1,070</b>                | <b>100%</b>            | <b>15</b>                            | <b>14</b>                             | <b>0</b>                           |

The employment has been re-forecasted for the 2022 projections based on the long-term growth rate of the leading industry, Agriculture. This gives a 0.3% annual growth rate.



Figure 95: Employment Forecast – Teviot Valley

### 5.8.2 MIGRATION

There is almost no net migration to the Teviot Valley. If people do move to the area, they are driven by:

- Retirement/lifestyle.
- Commute out of the area for work, particularly to Alexandra.
- Young people tend to move away for other opportunities such as education and employment opportunities not offered locally.
- Elderly tend to move away from the area in their later years, likely in search of better care.
- Migration for the 2022 projections has been adjusted to follow the 2018-2021 migration trend.

These trends are reflected below through the population by age and net migration figures.



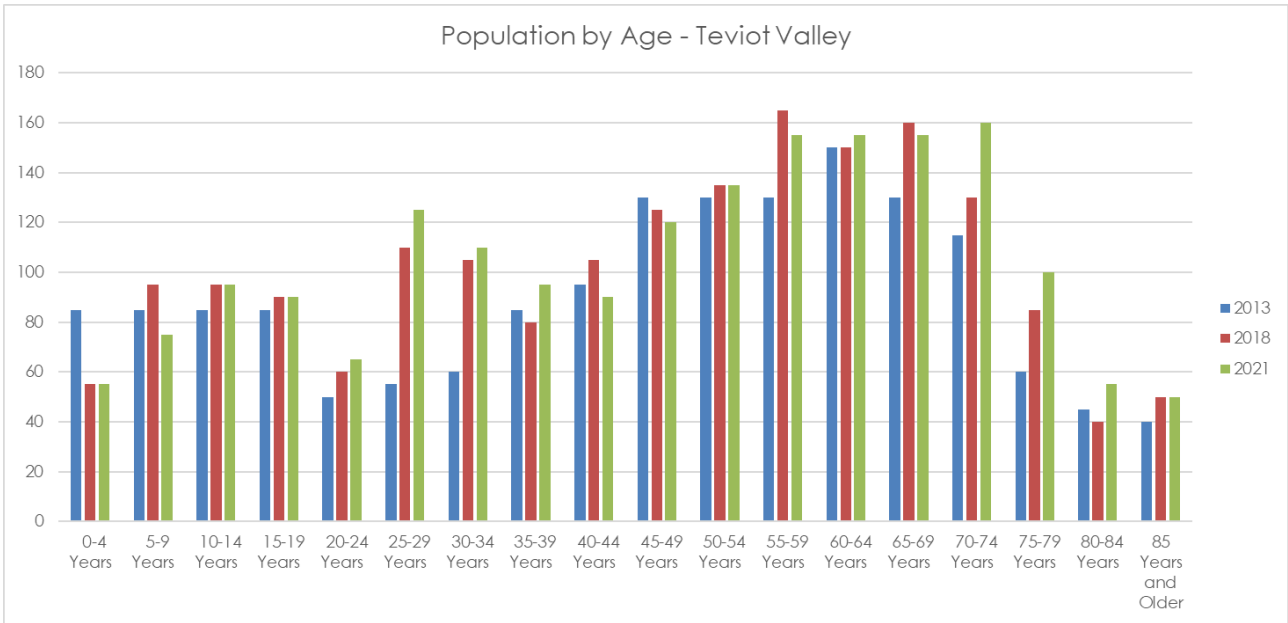


Figure 96: Historical population by Age Group - Teviot Valley

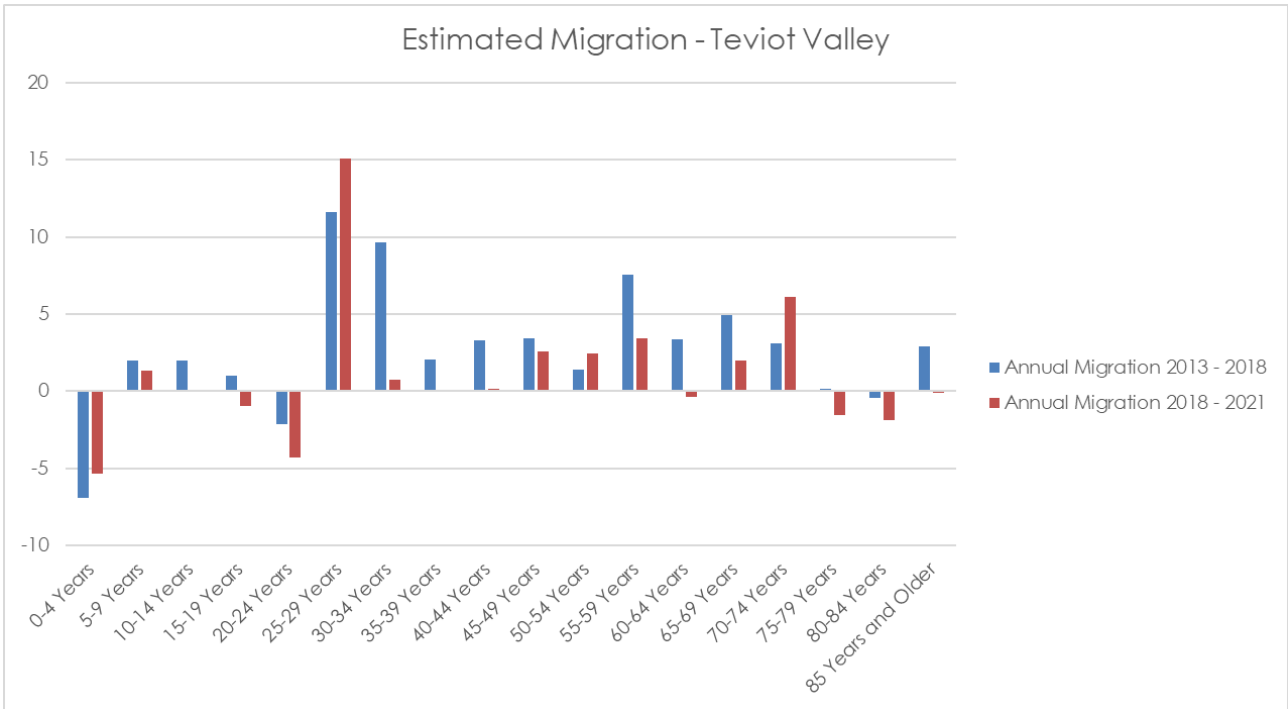


Figure 97: Estimated Net Migration by Age Group – Teviot Valley

## 5.9 Maniototo

Maniototo is traditionally an area known for its high country and pastoral farming. It has two small towns, Ranfurly and Naseby, which provide services including a rural hospital and schooling to the local community.

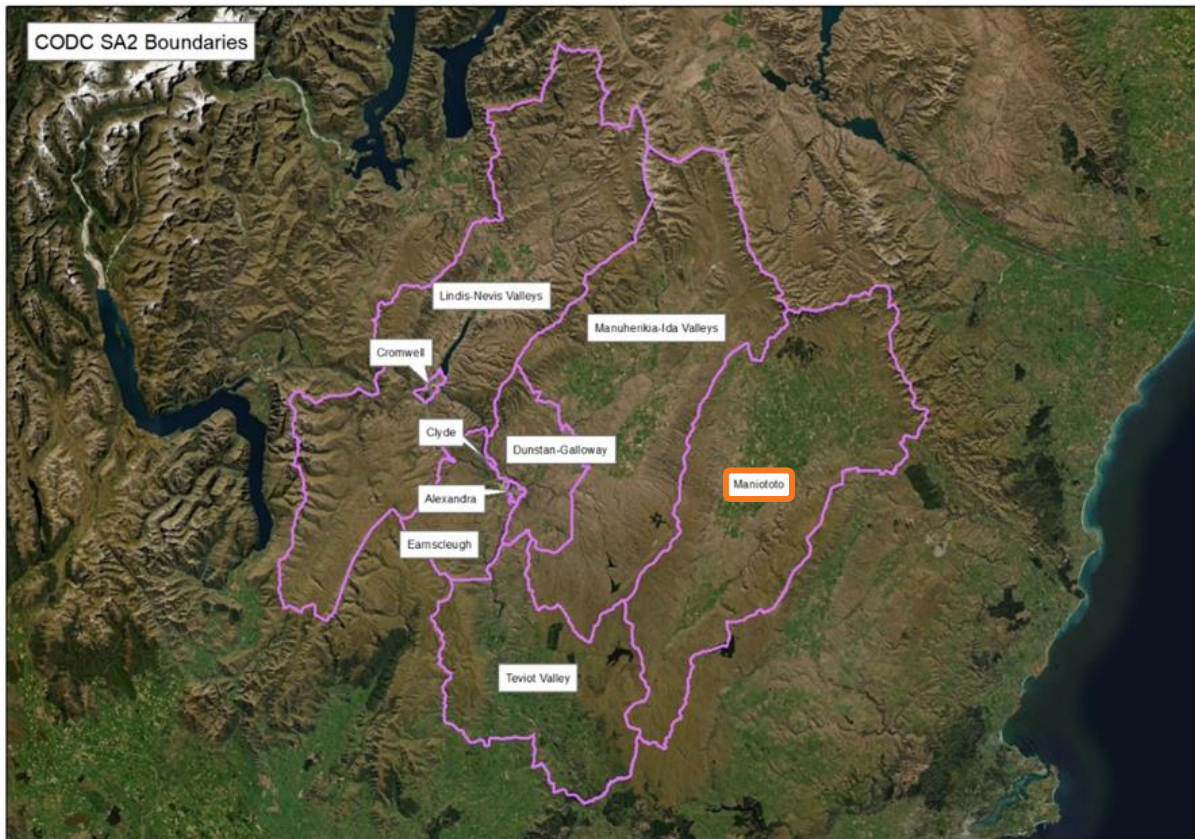


Figure 98: Area of Interest – Maniototo SA2

### 5.9.1 EMPLOYMENT

Maniototo has experienced no growth in employment opportunities during the last few years. It is a strong agricultural area that is home to farmers and services that support agriculture. Cycle tourism brings visitors to the area, allowing for jobs in tourism related industries.

Table 49. Employment growth by industry - Maniototo

| Industry   | Number of Employees in 2021 | % of workforce in 2021 | Average Annual Growth - last 3 years | Average Annual Growth - last 10 years | Average Annual Growth - Since 2001 |
|--|-----------------------------|------------------------|--------------------------------------|---------------------------------------|------------------------------------|
| <b>A Agriculture, Forestry and Fishing</b>               | 270                         | 40%                    | 0                                    | 1                                     | 2                                  |
| <b>M Professional, Scientific and Technical Services</b> | 75                          | 11%                    | 0                                    | 9                                     | 3                                  |
| <b>H Accommodation and Food Services</b>                 | 65                          | 10%                    | -5                                   | 1                                     | 1                                  |
| <b>G Retail Trade</b>                                    | 55                          | 8%                     | -3                                   | 3                                     | 0                                  |
| <b>P Education and Training</b>                          | 55                          | 8%                     | 3                                    | 0                                     | 1                                  |
| <b>Other Industries</b>                                  | 158                         | 23%                    | -12                                  | -4                                    | -1                                 |
| <b>All Industries</b>                                    | <b>680</b>                  | <b>100%</b>            | <b>-17</b>                           | <b>10</b>                             | <b>7</b>                           |

No changes were made to the employment forecast used in the 2020 projections.

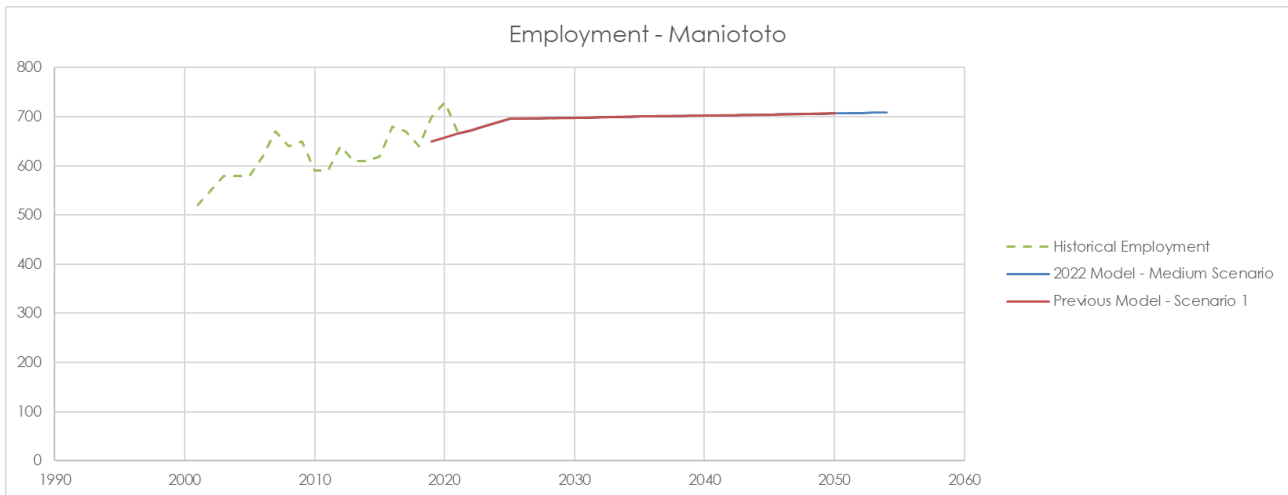


Figure 99: Employment Forecast - Maniototo

### 5.9.2 MIGRATION

There has been a small net positive migration into Maniototo. The drivers for this are:

- Adults into their later stages of their working career migrate to Maniototo for the lifestyle.
- Young families move to the area for lifestyle, commuting elsewhere in the district for work.
- Young people tend to move away for other opportunities such as education and employment not offered locally.
- Elderly tend to move away from the area in their later years, likely in search of better care.
- Migration for the 2022 projections has been increased following 2013 – 2018 trend.

These trends are reflected below through the population by age and net migration figures.

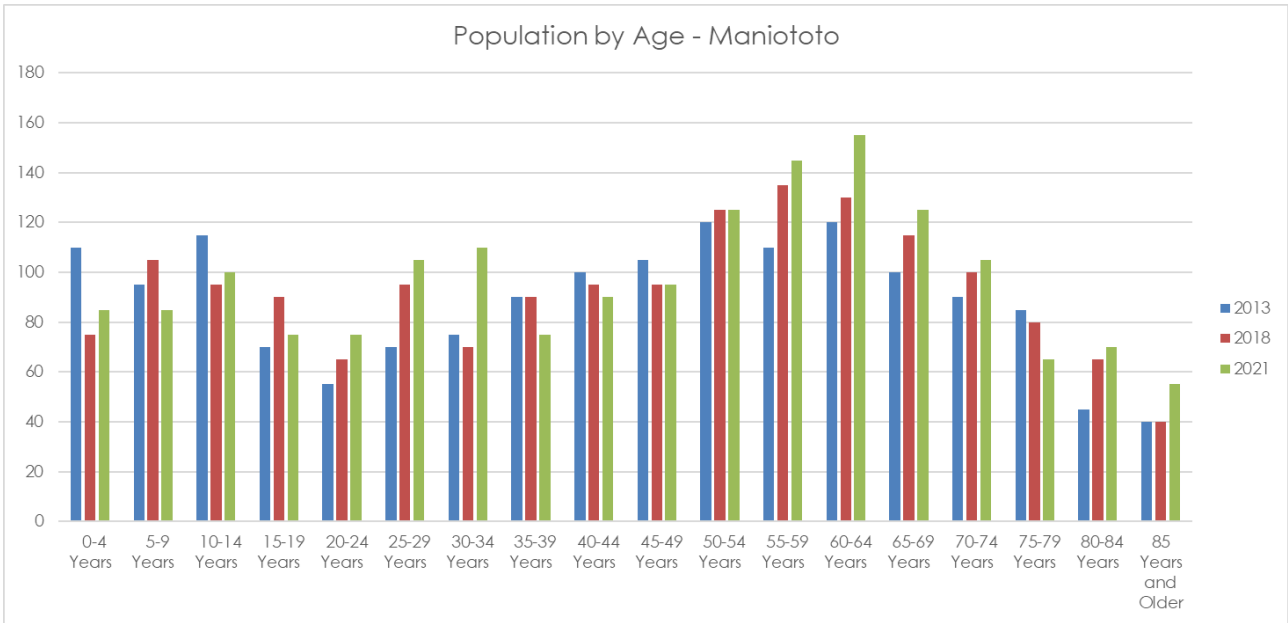


Figure 100: Historical population by Age Group - Maniototo

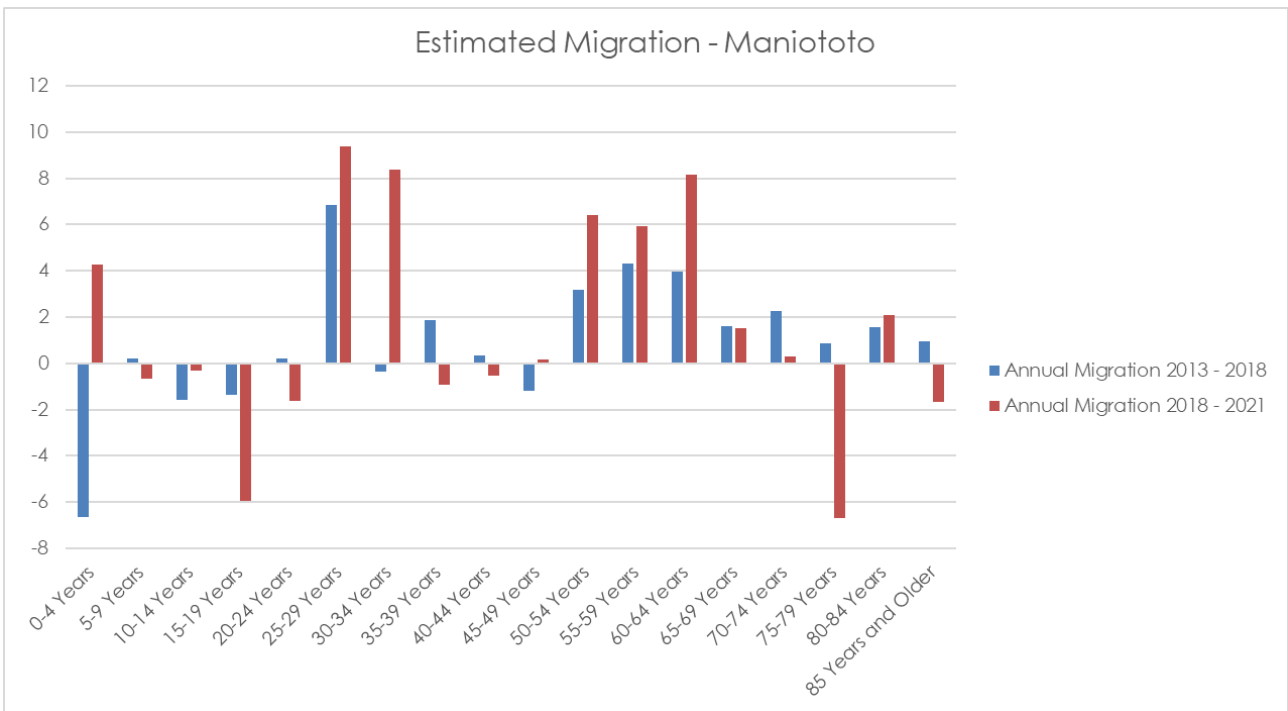


Figure 101: Estimated Net Migration by Age Group - Maniototo

## 5.10 Rural Townships

Outputs have been produced for smaller, rural townships that fall within a Statistical Area 2. This is achieved by growth apportionment from their "parent" SA2. This process involves using historical data to get an estimate of how much of the growth of the SA2 the rural township is responsible for, and then using this to apportion projected growth of the SA2 onto the rural township.

There are slight differences on how this method has been implemented for each rural township, these are described below.

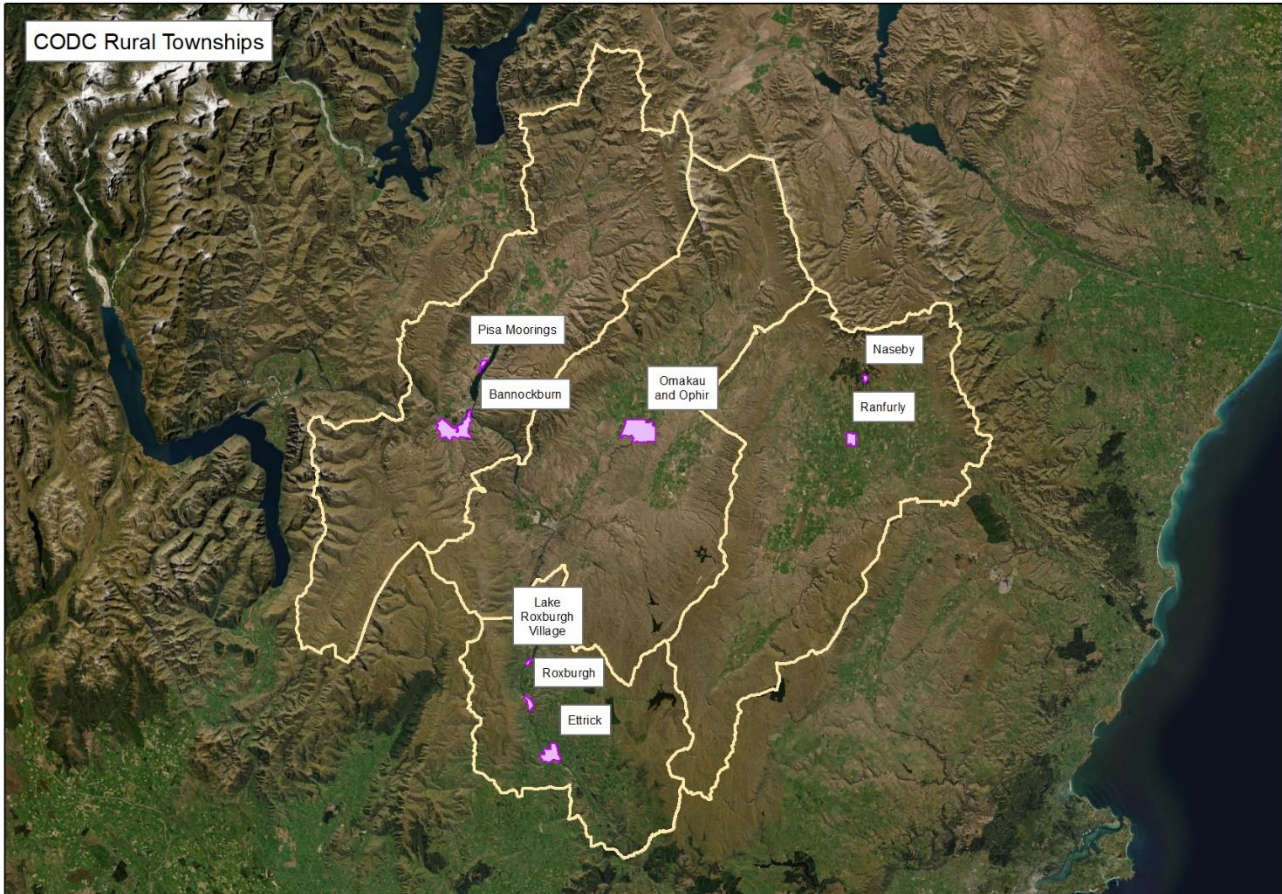


Figure 102: CODC Rural Townships

### **Pisa Moorings and Bannockburn**

Growth apportionment based on 2021 growth in the Lindis-Nevis Valleys SA2.

### **Omakau and Ophir**

Growth apportionment based on 2013-2021 growth in the Manuherikia-Ida Valleys SA2.

### **Naseby, Ranfurly, Patearoa**

Growth apportionment based on 2014-2021 growth in the Maniototo SA2.

### **Lake Roxburgh Village, Roxburgh and Etrick**

Growth apportionment loosely based on 2013 – 2021 growth in the Teviot Valley SA2. Some ad-hoc adjustments required given small size of townships to provide a more realistic apportionment.

## 5.11 Water and Wastewater Schemes

Outputs have also been produced for water and wastewater schemes. Note that the boundaries for these schemes are currently being updated and thus these have not been included in the Outputs Report.

The growth drivers used to produce projections at the scheme level follow a similar methodology to that used for townships. For each wastewater (WW) or water supply (WS) scheme area, we partition the area by its intersection with any SA2 and UR boundaries. Each partition of the scheme area will have a "parent" area being preferably a township or else an SA2 and will adopt the same growth rate from that "parent" area for each projection year.

The table below shows how each of the scheme areas has been partitioned and highlights the "parent" area whose growth rate is assimilated to that partition.

Table 50: Partitioning of each Scheme Area for Growth Assimilation

| Scheme Area  | Partition No. | SA2                     | UR                    |
|--|---------------|-------------------------|-----------------------|
| <b>Cromwell (incl Bannockburn, Pisa, Lowburn and Ripponvale)</b> | 1             | Cromwell                | Cromwell              |
|  | 2             | Lindis-Nevis Valleys    | -                     |
|  | 3             | Lindis-Nevis Valleys    | Bannockburn           |
|  | 4             | Lindis-Nevis Valleys    | Pisa Moorings         |
| <b>Alexandra and Clyde</b>                                       | 1             | Alexandra               | Alexandra             |
|  | 2             | Clyde                   | Clyde                 |
|  | 3             | Dunstan-Galloway        | -                     |
|  | 4             | Earnsclough             | -                     |
| <b>Omakau and Ophir</b>  | 1             | Manuherikia-Ida Valleys | Omakau                |
|  | 2             | Manuherikia-Ida Valleys | -                     |
| <b>Naseby</b>  | 1             | Maniototo               | Naseby                |
|  | 2             | Maniototo               | -                     |
| <b>Ranfurlly</b>   | 1             | Maniototo               | Ranfurlly             |
|  | 2             | Maniototo               | -                     |
| <b>Patearoa</b>  | 1             | Maniototo               | -                     |
| <b>Roxburgh and Lake Roxburgh Village</b>                        | 1             | Teviot Valley           | Lake Roxburgh Village |
|  | 2             | Teviot Valley           | Roxburgh              |
|  | 3             | Teviot Valley           | -                     |

## 6 Growth Scenarios

Three scenarios have been modelled, each with their own assumptions and differing level of growth as described below.

### **Scenario 1: High**

The high projection, Scenario 1, models 20% more migration and employment growth than Scenario 2.

### **Scenario 2: Medium**

The medium projection, Scenario 2, models the expected migration and employment levels as described in section 5.

### **Scenario 3: Low**

The low projection, Scenario 3, models 20% less migration and employment growth than Scenario 2.

It is recommended that CODC adopts Scenario 2: Medium to inform key projects, plans and strategies as this represents the most likely level of growth in the next thirty years.

It is evident that COVID-19 will have some continuing effects on the growth of the district, but there is yet vast uncertainty on what the long-term effects may be. Thus, Scenario 2 is recommended as it provides a balanced projection until more evidence is available.

Given this situation, it is recommended that six-monthly and annual "check-ins" are completed with the most up-to-date data to monitor the impact of COVID-19 and the progress of recovery.

# Appendix A: Growth Model Methodology

