Wednesday, April 08, 2015

Matthew Paetz
Queenstown Lakes District Council
Private Bag 50072
Queenstown 9348
New Zealand

Dear Matthew,

**Re: Queenstown Visitor Accommodation Projections**

**Context and Purpose of this Letter**
Last month, QLDC commissioned us to produce indicative visitor accommodation projections for Queenstown to inform its District Plan Review. This letter summarises our approach and key findings. Please note that, due to time and budget constraints, the analysis is necessarily high level. However, we are confident that it provides a reliable basis for broad strategic planning.

**Study Area and Time Horizon**
We adopted a study area aligned with the Queenstown RTO boundary – as shown below – then generated annual forecasts of visitor nights and stay capacity by accommodation type to 2035.

**Figure 1:** South Island Regional Tourism Organisation Boundaries
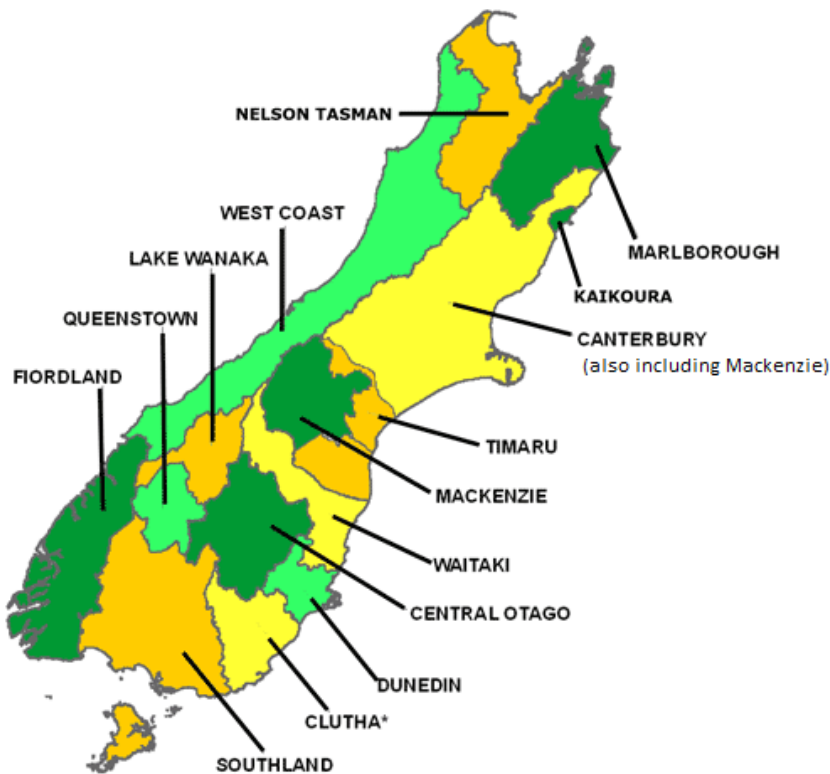
**Accommodation Types**

Our analysis includes all traditional forms of commercial accommodation plus peer-to-peer options, such as Book-a-Bach or Air BnB. However, it *excludes* people staying at their own holiday homes or with friends and relatives. This is illustrated in the figure below.

**Figure 2**: Visitor Accommodation Types Included in the Analysis
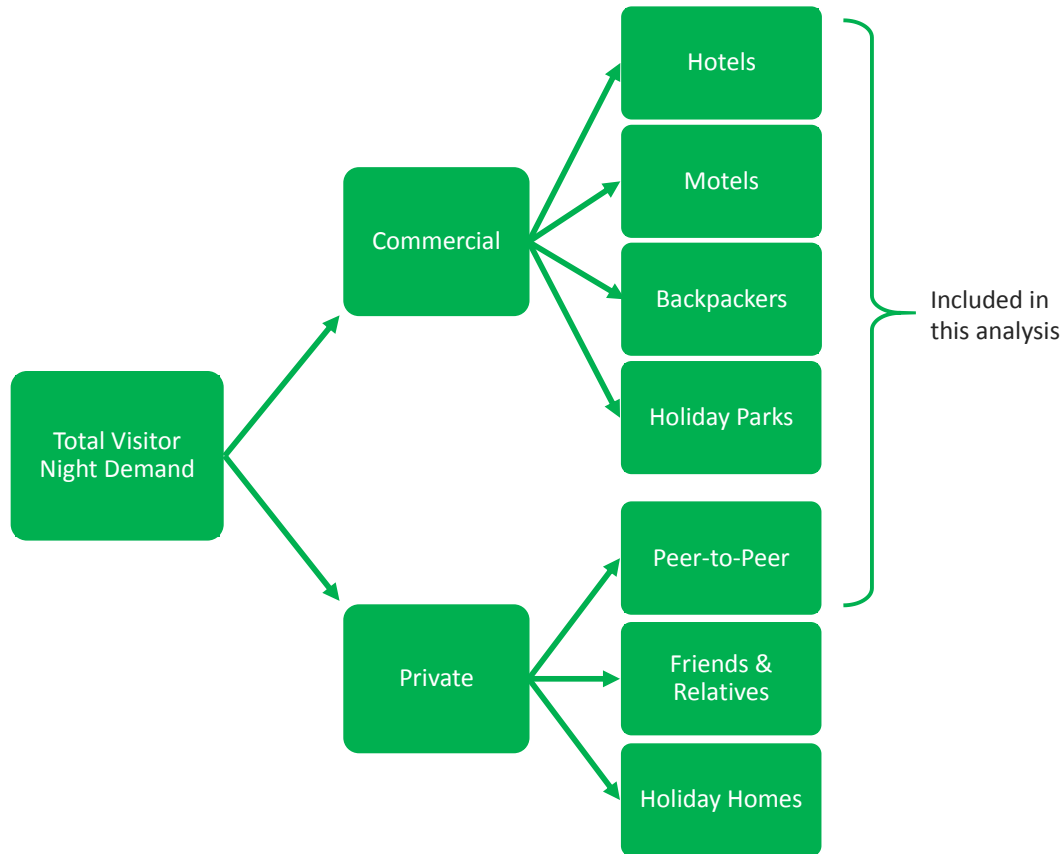


**Steps in the Analysis**

Following are the key steps in our analysis:

1. Survey all available tourism data for Queenstown.
2. Generate a number of forecasts for commercial visitor nights.
3. Select the most likely range based on known developments in the tourism industry.
4. Account for growth in peer to peer accommodation.
5. Forecast changes in market shares by accommodation type.
6. Convert to future capacity requirements.

**Projecting Commercial Accommodation**

As some readers may be aware, there is a significant shortage of timely tourism information available to support sub-national projections, such as those that form our focus here. For example, the most recent regional tourism projections were done in 2010.

Of all available sources, the commercial accommodation monitor is the most up-to-date available. Accordingly, we used it to generate projections of *commercial* visitor nights, then added estimates

of peer-to-peer nights to complete the analysis. In addition, we considered a range of other commercial night projections already posited by others, including the McDermott Miller projections completed for the council in 2013.

The following figure depicts the various commercial night forecasts considered.

**Figure 3**: Projections of Commercial Nights
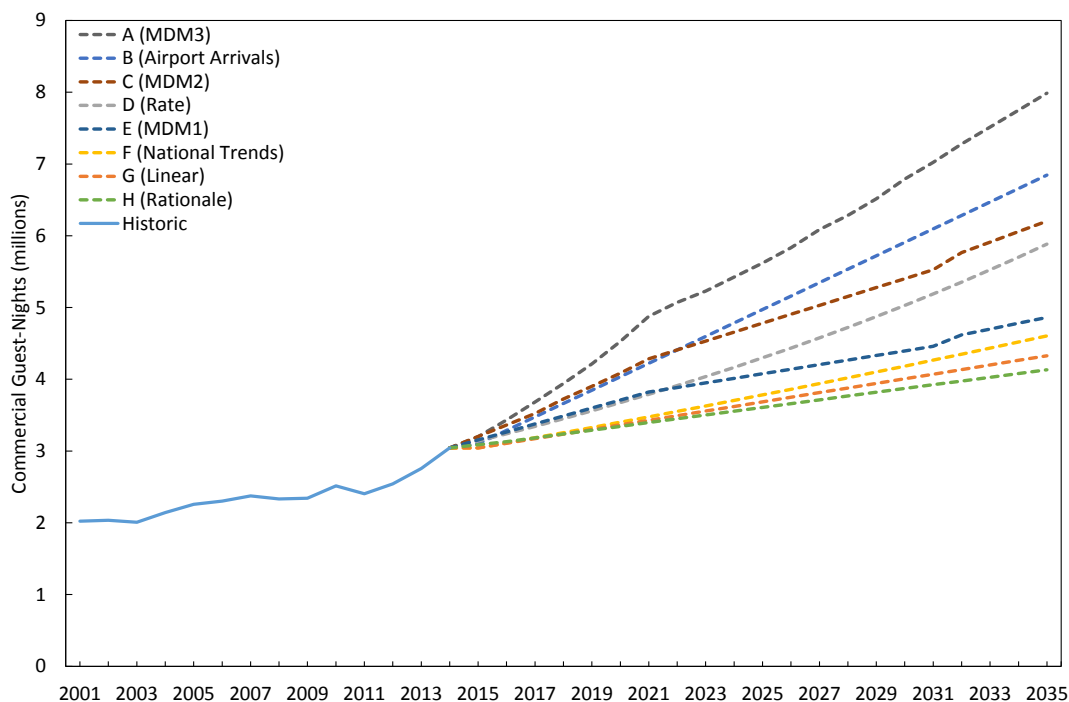


The significant range between the lowest and highest projections highlights the difficulty in predicting the future path of tourism nights. However, we consider the lower cluster of projections (E to H) to be unduly pessimistic because:

1. **They reflect a significant slow-down in growth** – while local tourism growth certainly was affected by the GFC, the worst is far from over with strong growth witnessed in recent times. In fact commercial guest-nights grew 25% over the past three years, which is the highest growth rate for some time.

2. **They appear to ignore pending increases in airport operating hours** – the airport has been given provisional permission to start night flights from mid-2016. This will significantly boost airport capacity and enable tourism growth to continue at a fast pace.

3. **They appear to ignore the potential uplift from convention tourism** – international convention centres have been proposed both in Lakeview and Frankton. Development of one or both of these projects will bring in a large number of conference attendees with obvious impacts on annual guest nights.

Consequently, we believe that the higher four projections (A to D) provide the most reliable for forecasting commercial accommodation demand in Queenstown and use them accordingly.

**Peer to Peer Accommodation**

A noted earlier, our projections of total nights also include peer to peer stays. Unfortunately, it is difficult to accurately predict these as there are no official records. The most reliable is the International Visitor Survey, which suggested that, for every 10 commercial visitor nights, two nights are spent in peer-to-peer rentals. Using this ratio, we scaled the commercial-night estimates in Figure 3 to create the total guest-night projections shown in the figure below.

**Figure 4**: Projections of Total Guest-Nights
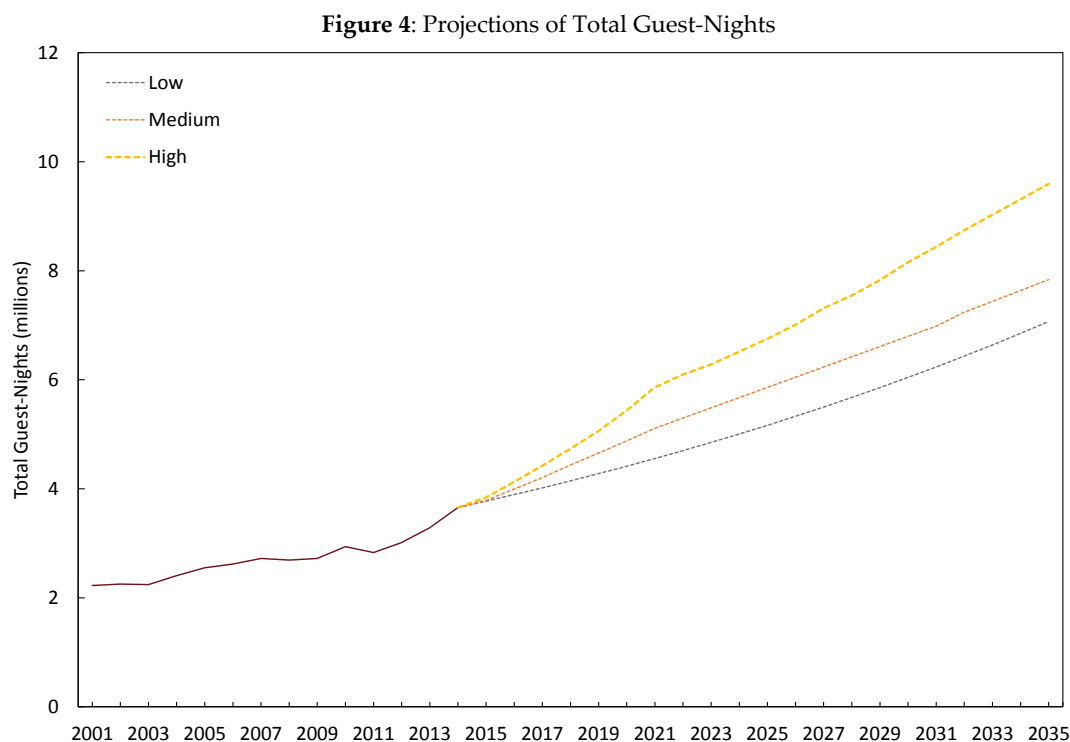


**Guest-Night Demand by Accommodation Type**

Once total guest night has been projected, we then considered likely shares by accommodation type. To begin, we first reviewed historical trends, which indicated a long-run decline in the market shares of both backpackers and holiday parks, mostly in favour of hotels.

Acknowledging these trends, we derived a set of market share projections to 2035. These assume, principally, that the market share of peer-to-peer providers will increase gradually over time. The following figure shows the results, which we consider the most likely scenario going forward.[1]

---

[1] Please note, however, that a detailed Excel Spreadsheet has also been provided so that the effects of alternative assumptions can be assessed.

**Figure 5**: Growth in guest-nights by accommodation type
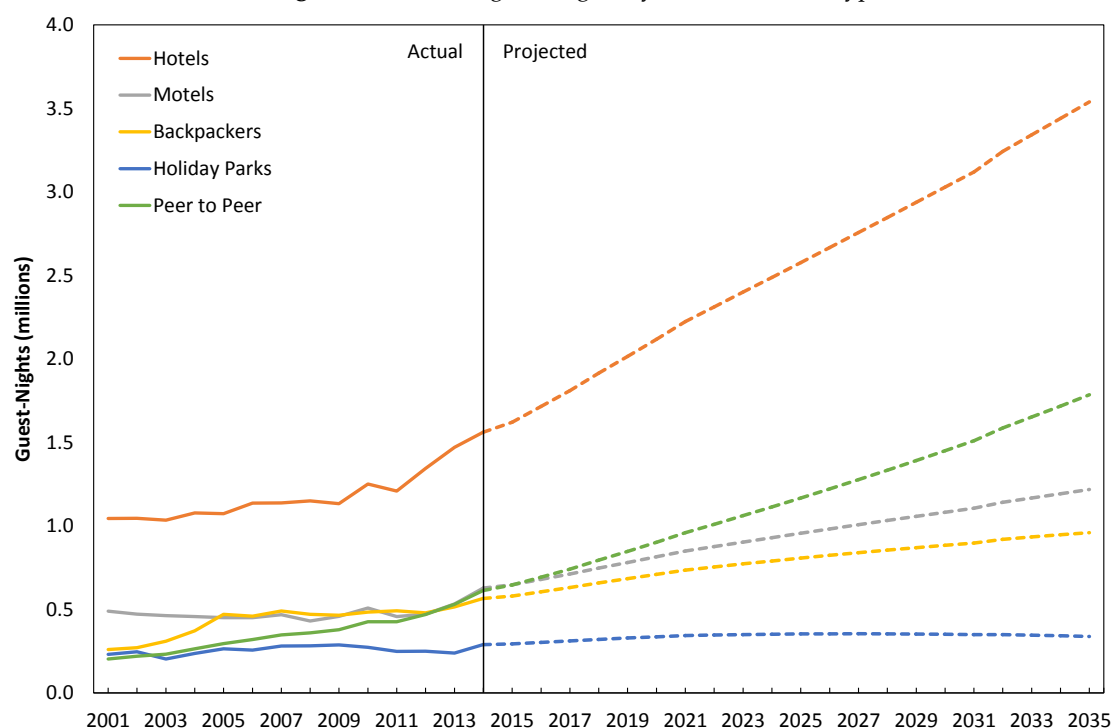


## Future Demand for Each Accommodation Type

Finally, we used historical CAM data to convert our guest-night projections above into to estimates of stay-unit capacity.[2] The following table shows the occupancy and average guest number assumptions applied.

**Table 1**: Assumptions used to estimate capacity requirements

|  | Average Occupancy[3] | Guests per Stay-Unit |
|---|---|---|
| Hotels | 73% | 1.9 |
| Motels | 58% | 2.4 |
| Backpackers | 66% | 1.1 |
| Holiday Parks | 30% | 2.4 |

As these assumptions are based on long-run market data, they can be assumed to reflect the natural level of supply relative to demand. That is to say, they account for both seasonal peaks and troughs in tourism demand, as well as the ability of users to adapt to short-term capacity constraints (for example by using the pull-out couch in a motel room). Thus, these assumptions can reasonably be used to determine the additional stay-units which will be required to meet future demand in a 'market-preferred' way.

---

[2] One stay-unit is equivalent to the unit of accommodation that is charged out to guests e.g. a motel unit, a bed in a bunkroom or a powered site.

[3] We have applied the average occupancy based on the most recent year for which data was available.

Note that there was no information available on the current stock of peer to peer units so occupancy could not be calculated. Instead, we present peer to peer capacity requirements simply as the growth in guest-nights that must be provided for.

Based on these assumptions, the following table presents the current state of supply in Queenstown, as well as the future growth that will be required to meet what we view as the most-likely scenario for future growth.

**Table 2**: Current and Future Accommodation Capacity Requirements

| Stay-Unit Capacity | 2015 | 2035 | 20-Year Growth |
|---|---|---|---|
| Hotels | 3,120 | 7,090 | +3,970 |
| Motels | 1,180 | 2,390 | +1,210 |
| Backpackers | 2,190 | 3,710 | +1,520 |
| Holiday Parks | 1,100 | 1,400 | +300 |
| Peer to Peer (Guest Nights) | 645,950 | 1,785,220 | +1,139,270 |

Sincerely,

Fraser Colegrave
Managing Director
Insight Economics Limited

**Brief Analysis of Options for Reducing Speculative Land Banking**
Wednesday, 6 August 2014

**Purpose of this memo**
This memo briefly assesses options for reducing land banking, where land is strategically drip-fed to the market to increase prices and thus enable 'banked land' to later be sold at a premium.

**Important clarification**
This memo is concerned with the strategic withholding only of **zoned/developable** land. The withholding of unzoned land may reflect a number of legitimate reasons and therefore not even indicate market manipulation. Those other reasons include:

- The need for further planning, such as structure plans or ODPs
- Pending or current legal action over zoning and/or consenting
- General uncertainty about the future economic environment, or
- The inability to raise development funding

However, this is not to say that all withheld zoned/developed automatically reflects anticompetitive behaviour either. Rather, it may simply reflect good commercial practice. This is because land development is a pipeline business, with future production levels reliant on a steady stream of developable land. Since acquiring and consenting land can take many years, it only makes sense to buy it well in advance, thereby avoiding costly delays to the "production process."

Further, the literature consistently notes a likely positive correlation between the restrictiveness of the planning system and the need to bank land just for commercial purposes. This is because restrictive systems increase the overall cost and time of the planning process, requiring larger buffers to be held to avoid delays. As a result, some point the finger at the planning system itself. This is not the full story, however, and land banking remains an important policy issue. Indeed, this is precisely why it was included in a recent discussion document on further RMA reforms.

**What is the economic rationale for strategically withholding zoned/developable land?**
Land developers (like all businesses) are profit-motivated. Their goal is to maximise the net present value of future profits. In times of high land price inflation, this may mean withholding supply to take advantage of higher future prices. Provided the resulting increase in revenue covers the net costs of delay – namely (tax deductible) interest and rates expenses – it makes commercial sense. Accordingly, policy-makers should seek to undermine incentives for land banking either by (i) reducing the likely gains, and/or (ii) increasing the likely costs.

**What changes are already taking place that might reduce the incentive for land banking?**
While Council will naturally wish to help address this issue, it is important to note that several broader changes are taking place that may also assist. These include:

- RMA reform – ongoing RMA reforms are expected to reduce the cost and complexity of plan changes and resource consent processes. This, in turn, may reduce the amount of land that firms (rationally) need to hold to avoid delays. In addition, the Government is currently investigating tools to enable Councils to address land banking, namely by allowing consents to lapse earlier.

- LGA reform – these also seek to streamline the planning process and reduce costs. However, they also include initiatives to reduce infrastructure charges, and enable them to be challenged via new objection processes. This may also assist.

- Housing affordability initiatives – the Government has recently introduced the concept of housing accords and special housing areas, which aim to boost land supply, particularly for affordable housing.

- Rising interest rates – rising interest rates will help deter land banking in two ways. First, they increase the (opportunity/interest) costs of holding land. Second, they help cool market demand, thus keeping land price inflation in check.

**What else could the Council possibly to do help?**

Council has a number of options to potentially help reduce speculative land banking. They include:

- Increasing the supply of zoned land to increase market competition
- Making it easier/cheaper to get planning permission
- Introducing charges that are targeted at vacant zoned land
- Discounting or delaying infrastructure charges for the early release/development of land
- Allowing infrastructure charges to be repaid over time for qualifying developments
- Making brownfields development cheaper/easier so it is a true alternative to greenfields.

The remainder of this note describes each option further and assesses its likely pros and cons.

**Option 1: Increasing the supply of zoned land**

*Description*

The first option is to increase the supply of developable, zoned land so that there is greater competition in the land market and hence less scope for market manipulation.

*Pros*
- Likely to directly target the root causes of land banking
- Easily within Council's powers
- Likely to be transparent and equitable
- Could have both short term and long term benefits. In the short term, a greater supply of zoned land will help curb price inflation and make housing more affordable. Over the longer term, it will erode the incentives for speculative land banking in the first place.
- May enable supply to be more responsive to demand, and hence reduce price volatility.

*Cons*
- Potential for conflict/overlaps with national-level changes. e.g. RMA reforms.
- Likely to face significant resistance, particularly from parties with vested interests. However, since parties with vested interests are effectively trade competitors, such resistance would likely be deemed irrelevant under the RMA and therefore ignored.
- Could take a long time to implement
- Potential for gaming of the process
- A significant supply increase could destabilise property prices and cause existing district property owners to lose equity in their home.

**Option 2: Making it easier/cheaper to get planning permission**

*Description*
The next option would be to find ways to make it easier to gain planning permission so that developers need to bank less land (to ensure continuity of the production process).

*Pros*
- Benefits will extend well beyond potential impacts on land banking. Will also reduce total development costs and thus potentially improve housing affordability
- May reduce Council's operating costs and/or free up resources for other uses
- Likely to be within Council's current powers
- Likely to improve the public's general perception of the Council

*Cons*
- Planning processes are highly complex, and any reform is likely to take significant time.
- Potential for gaming of the process and/or unintended consequences.
- Potential for conflict/overlaps with national-level changes. e.g. RMA reforms.
- Potential for poor environmental outcomes if processes are too rushed

**Option 3: Introducing Council charges to target vacant, zoned land**

*Description*
This option would involve the Council setting new charges to target vacant, zoned land to increase the cost of holding. The two main options are:

1. "Availability charges", which are levied on all properties regardless of whether they actually access a service. e.g. water availability charges, and
2. Targeted rates on vacant, zoned land.

*Pros*
- Relatively easy to implement
- Definitely within Council's powers
- Creates a revenue stream for the Council and may enable it to reduce other charges

*Cons*
- Would unfairly punish land holders whose land cannot be sold/developed for legitimate reasons.
- Unlikely to have much effect at the margin unless the charges are very high. However, very high charges would likely be deemed inequitable and thus politically unfavourable.
- May be deemed arbitrary
- Any targeted rates set on the basis of land values would require accurate, up-to-date estimates of land values. However, since land sales are relatively rare compared to dwelling sales, there is often insufficient reliable data on 'comparable sales' to inform such valuations.

**Option 4: Discounted or delayed infrastructure charges for early land release/development**

*Description*

This option would involve Council offering lower infrastructure/reserves charges for the early release or development of recently-zoned land. For example, Council may elect to delay the payment of development contributions until the last available trigger for taking them. Or, it may provide a discount on the charge itself.

*Pros*
- Provides an appropriate incentive for early land sales/development
- May make some previously-marginal developments viable.
- Will also reduce overall development costs and thus improve housing affordability
- Likely to be within Council's powers
- Easy-ish to implement

*Cons*
- Any reduction in charges would need to be recouped elsewhere
- No guarantee that the reduced costs would be passed on to home buyers, but a fairly high degree of pass-through is likely in a reasonably competitive market.
- Potential financial implications for the Council itself. This includes elevated financial risk, as the timing of development (and hence the receipt of DC revenues) is uncertain.
- May not create a level playing field. Some developments may be delayed for legitimate purposes and unfairly lose the right to a discount.
- Unlikely to have much effect at the margin unless discounts are very high. However, these may be deemed inequitable.

**Option 5: Allowing infrastructure charges to be repaid over time for rapid developments**

*Description*

This option would allow infrastructure charges (i.e. development contributions and financial contributions) to be paid over time by future households, rather than upfront by developers.

*Pros*
- Could be specifically designed to be revenue-neutral for council, at least in theory
- Would directly reduce the upfront cost of development
- Fairly transparent

*Cons*
- Potentially complicated, particularly from an administrative perspective
- May require legislative change
- Impacts on new homebuyers may not be readily apparent, causing them to pay more than they would have if they understood their future obligations properly.
- Requires the Council to act as banker, and therefore take significant financial risk.
- Essentially transfers costs from developers to households. To the extent that this simply reduces the amount that people are willing to pay for new dwellings, the reduction in upfront costs will be offset by reductions in developer revenues, so that there is little impact on incentives to sell/develop.

**Option 6: Making brownfields development easier so it is a viable substitute for greenfields**

*Description*

At present, many consider brownfields development too costly and difficult, especially relative to greenfields. This option would seek to level the playing field, perhaps by relaxing the various rules and regulations that govern brownfields development.

*Pros*

- Benefits will extend beyond potential impacts on land banking. May also reduce brownfields development costs and thus potentially improve housing affordability
- May reduce Council's operating costs and/or free up resources for other uses
- Likely to be within Council's current powers
- Likely to improve the public's general perception of the Council

*Cons*

- Creates a wealth transfer from greenfields land owners to brownfields. This, in turn, is likely to cause significant resistance from parties with vested interests. However, since parties with vested interests are effectively trade competitors, such resistance would likely be deemed irrelevant under the RMA and therefore ignored.
- Potential for conflict/overlaps with national-level changes. e.g. RMA reforms.
- Could take a long time to implement
- Potential for gaming of the process

# Medium to High Density Housing Study: Stage 1a – Review of Background Data

**Authorship**

This document was written by Fraser Colegrave, Steve Hoskins and Kim Mundy. For further information, please contact Fraser at the details below:

**DDI:** (09) 366 6416

**Mobile**: (021) 346 553

**Email**: fraser@insighteconomics.co.nz

**Web**: www.insighteconomics.co.nz

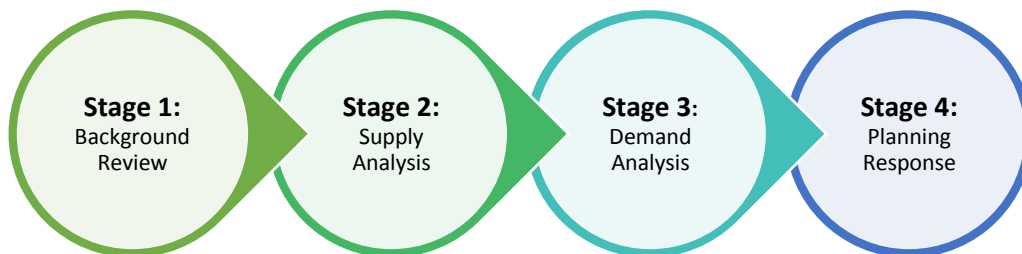# Contents

# 1    Introduction

## 1.1    Context and Purpose of this Report

Queenstown Lakes District Council (QLDC) is currently reviewing its District Plan. To assist, we were commissioned to help project the supply and demand for medium to high density housing over the next 15 to 20 years, and help identify options to meet any potential shortfalls in land supply.

## 1.2    Staged Approach and Scope of this Report

The project has been split up into four stages, with this report covering stage one. Its main aim is to inform the rest of the project by summarising key background information, as illustrated below.

**Figure 1:** Project Stages

**Stage 1:** Background Review → **Stage 2:** Supply Analysis → **Stage 3:** Demand Analysis → **Stage 4:** Planning Response

## 1.3    Ward Boundaries and Terminology

This report presents a lot of detailed information. To enable comparisons within the district, it presents most of the information by the three wards that comprise the district. They are: Wakatipu, Arrowtown, and Wanaka. When referring to the district as a whole, we use the terms "Queenstown" or "the district" interchangeably.

## 1.4    Structure of the Report

The remainder of this report is structured as follows:

- **Section 2** presents key information about district residents and households.

- **Section 3** summarises information about district dwellings.

- **Section 4** reviews various projections currently used for planning purposes, and

- **Section 5** presents revised population projections for consideration.

# 2    Residents & Households

This section summarises key information about district residents and households.

## 2.1    Resident Demographic Profile

Table 1 summarises demographic information from the 2013 census. For the sake of comparison, it also includes the national averages.

**Table 1:** Census 2013 Demographic Profile

| Indicators | Wakatipu | Arrowtown | Wanaka | NZ |
|---|---|---|---|---|
| **Population** | | | | |
| 2006 | 13,800 | 2,200 | 7,000 | 4,028,000 |
| 2013 | 16,700 | 2,400 | 9,000 | 4,242,100 |
| Growth p.a. (%) | 2.8% | 1.8% | 3.7% | 0.7% |
| **Gender** | | | | |
| Male | 51% | 49% | 49% | 49% |
| Female | 49% | 51% | 51% | 51% |
| **Age Profile** | | | | |
| 0-14 Years | 17% | 24% | 20% | 20% |
| 15-29 Years | 23% | 12% | 13% | 20% |
| 30-44 Years | 29% | 26% | 24% | 20% |
| 45-59 Years | 18% | 20% | 21% | 20% |
| 60 + | 12% | 18% | 22% | 20% |
| **Ethnicity** | | | | |
| European | 87% | 93% | 93% | 74% |
| Māori | 6% | 5% | 4% | 14% |
| Pacific Peoples | 1% | 0% | 1% | 6% |
| Asian | 6% | 1% | 2% | 6% |
| MELAA | 0% | 0% | 0% | 1% |
| **Birthplace** | | | | |
| NZ born | 61% | 79% | 77% | 75% |
| Overseas born | 39% | 21% | 23% | 25% |
| **Study** | | | | |
| Full-time Study | 6% | 5% | 5% | 9% |
| Part-time Study | 4% | 3% | 4% | 3% |
| Not Studying | 90% | 92% | 92% | 88% |
| **Qualifications** | | | | |
| No Qualification | 10% | 13% | 12% | 21% |
| Secondary/Vocational | 65% | 64% | 64% | 59% |
| Tertiary | 25% | 23% | 24% | 20% |
| **Marital Status** | | | | |
| Married | 44% | 59% | 55% | 48% |
| Separated/Divorced/Widowed | 11% | 14% | 14% | 17% |
| Never Married | 45% | 27% | 31% | 35% |

The table above shows that:

- Since 2006, residential growth has exceeded the national average in all three wards, with Wanaka recording the highest (at 3.7% per annum).

- The district's age profile differs significantly from the national average. These differences are most pronounced in Wakatipu, which has far more people aged 30-44.

- Residents strongly identify as European, with very few identifying themselves as Maori or pacific peoples.

- Almost 40% of residents were born overseas, compared to only 25% nationally.

- Compared to the national average, district residents are less likely to be in part-time or full-time study. However, they have much higher average educational attainment.

- Marital status differs markedly across the district, with a relatively low rate in Wakatipu, but higher rates elsewhere.

One of the key features of the data above is the district's unique age profile. To examine this further, we created a population pyramid. This is shown below, where the bulge between ages 25 and 44 is quite clear.

**Figure 2**: Population Pyramids
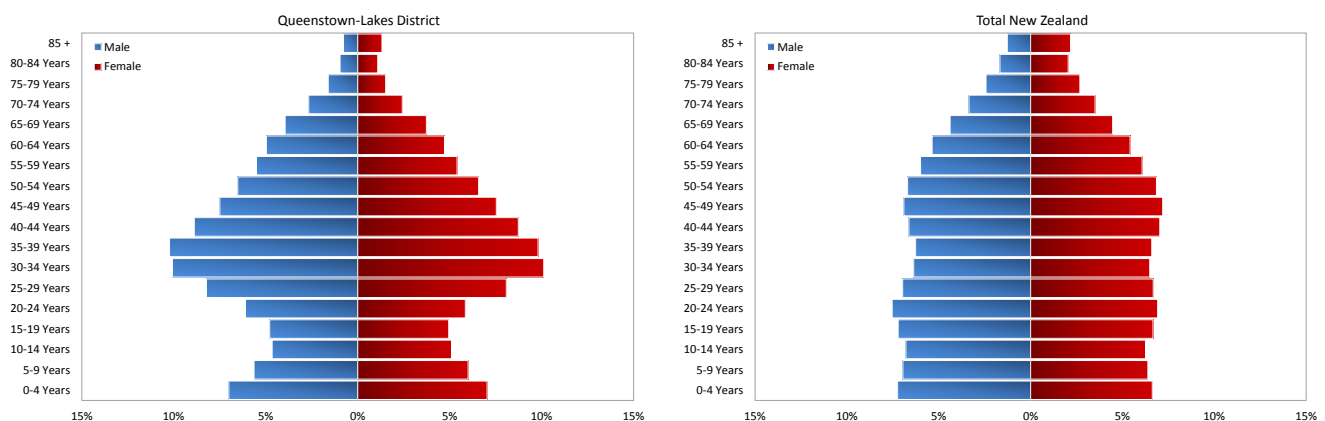


Another interesting demographic feature, which is not clear from the data above, is that district residents tend to be quite mobile, and not stay in any one place for too long. For example, the following table shows where people who were aged 18 to 29 at the last census (and tend to be the most mobile) lived 5 years earlier.

**Table 2**: Usual Residence 5 Years Ago (18 to 29 yrs old)

| Origin | Shares |
|---|---|
| Queenstown-Lakes District | 22% |
| Rest of NZ | 34% |
| Rest of World | 41% |
| Response Unidentifiable | 3% |
| **Total** | **100%** |

Table 2 confirms that younger district residents are indeed highly mobile, with only 22% living in the district for five years or more. Over 40% of those living in the district at the

last census had arrived from overseas during the preceding five years with over half of those coming from Europe. Interestingly, many of those came from Scandinavia.

## 2.2 Households

Table 3 summarises information about families and households. Again, New Zealand has been included as a point of reference.

<p style="text-align:center"><strong>Table 3:</strong> Census 2013 Family and Household Profile</p>

| Family and Household | Wakatipu | Arrowtown | Wanaka | New Zealand |
|---|---|---|---|---|
| **Household Composition** | | | | |
| One-family household | 69% | 74% | 74% | 68% |
| Two or more family household | 2% | 1% | 1% | 3% |
| Multi-person (flat) | 10% | 3% | 5% | 5% |
| One-person household | 19% | 22% | 21% | 24% |
| | | | | |
| **Family Type** | | | | |
| Couple without children | 53% | 46% | 52% | 41% |
| Couple with child(ren) | 39% | 44% | 39% | 41% |
| One parent with child(ren) | 7% | 10% | 9% | 18% |
| | | | | |
| **Residents per Hhld** | | | | |
| 2001 | 2.56 | 2.50 | 2.42 | 2.70 |
| 2006 | 2.56 | 2.40 | 2.49 | 2.70 |
| 2013 | 2.65 | 2.50 | 2.44 | 2.70 |
| | | | | |
| **Number of Motor Vehicles** | | | | |
| None | 4% | 3% | 3% | 8% |
| One | 32% | 33% | 30% | 38% |
| Two | 44% | 48% | 48% | 38% |
| Three + | 20% | 17% | 19% | 16% |
| Average | 1.9 | 1.9 | 1.9 | 1.7 |

The information summarised above shows that:

- District households have a similar composition to the national average, however, Arrowtown and Wanaka have more one-family households.

- Conversely, Wakatipu has more multi-person (flatting) households, but fewer people living alone.

- All three wards have more couples without children than the national average, and far fewer solo parents.

- Average household sizes are quite small, particularly in Wanaka.

- Despite having smaller households, district residents have higher-than-average vehicle ownership rates.

## 2.3    Income and Employment

Table 4 below displays income and employment data from census 2013.

**Table 4:** Income and Employment Information for Queenstown Lakes District

| Income and Employment | Wakatipu | Arrowtown | Wanaka | NZ |
|---|---|---|---|---|
| **Income Profile** | | | | |
| Median Personal Income (pa) | $36,800 | $37,900 | $32,800 | $28,500 |
| Median Family Income | $81,300 | $85,000 | $72,700 | $72,700 |
| **Employment** | | | | |
| Employed | 80% | 77% | 72% | 62% |
| Unemployed | 2% | 2% | 2% | 5% |
| Not in Labour Force | 18% | 22% | 26% | 33% |
| **Employment Status** | | | | |
| Paid Employee | 75% | 68% | 63% | 79% |
| Employer | 9% | 13% | 12% | 7% |
| Sole Trader | 15% | 18% | 22% | 12% |
| Unpaid Family Worker | 1% | 2% | 3% | 2% |
| **Type of Work** | | | | |
| Managers | 22% | 23% | 24% | 19% |
| Professionals | 16% | 20% | 19% | 22% |
| Technicians | 15% | 16% | 16% | 12% |
| Service Workers | 13% | 9% | 9% | 9% |
| Administrative | 10% | 11% | 9% | 12% |
| Sales | 11% | 8% | 9% | 9% |
| Machinery | 4% | 5% | 3% | 5% |
| Labourers | 9% | 8% | 11% | 11% |
| **Hours Worked** | | | | |
| 1–9 | 3% | 4% | 6% | 5% |
| 10–19 | 5% | 7% | 8% | 7% |
| 20–29 | 8% | 11% | 12% | 9% |
| 30–39 | 17% | 15% | 16% | 14% |
| 40–49 | 47% | 42% | 37% | 44% |
| 50–59 | 12% | 13% | 12% | 11% |
| 60 + | 8% | 8% | 10% | 8% |
| Average | 42.2 | 40.4 | 39.7 | 40.2 |
| **Travel to Work** | | | | |
| Worked at Home | 10% | 11% | 15% | 9% |
| Did Not Go to Work Today | 11% | 11% | 12% | 11% |
| Car | 58% | 67% | 59% | 66% |
| Public Transport | 2% | 1% | 0% | 5% |
| Walk/Bike | 17% | 9% | 12% | 8% |
| Other | 2% | 1% | 1% | 2% |

Some of the key points arising from the information above include that:

- Compared to New Zealand, district personal and family incomes are high. However, family incomes in Wanaka are noticeably average.

- Labour force participation rates are high, particularly in Wakatipu. So, too are employment rates. Unemployment rates are very low.

- The district has a number of sole traders, especially in Wanaka.

- The district has a lot of managers, but relatively few professionals. Service workers are predominant in Wakatipu due to its tourism focus.

- Wakatipu residents work longer hours than the national average.

- Although district households have high rates of car ownership, they appear less reliant on cars for commuting. This is partly because a relatively high proportion of Wakatipu workers walk or cycle instead.

## 2.4    Possible Implications for Future Dwelling Demand

The data above has the following potential implications for future dwelling demand:

- If growth continues at a rapid pace – a prospect that we assess shortly – the district will continue to experience high growth in dwelling demand.

- Given the highly mobile nature of district residents, many are likely to be seeking flexible, short-term living arrangements.

- In addition, many Wakatipu residents will also be seeking flatting opportunities.

- Although the district workforce tends to be younger and more mobile than the national average, median wages are relatively high. This suggests that there could be more demand for higher priced living options than previously thought.

- However, having said that, there will also be significant demand for cheaper options, particularly amongst younger working residents.

- District residents are far more likely to walk or cycle to work than the rest of New Zealand, particularly in Wakatipu. This could provide some headroom for Council to reduce parking requirements on future commercial and residential developments. However, further work is required to properly test this theory.

# 3    Dwellings

This section summarises data about district dwellings.

## 3.1    Census Information

Table 5 summarises census information about district dwellings.

**Table 5:** Census 2013 Dwelling Profile

| Dwellings | Wakatipu | Arrowtown | Wanaka | New Zealand |
|---|---|---|---|---|
| **Dwelling Type** | | | | |
| House | 64% | 86% | 90% | 82% |
| Flat/Apartment | 36% | 14% | 10% | 18% |
| | | | | |
| **Home Ownership** | | | | |
| Own | 54% | 66% | 68% | 65% |
| Rent | 46% | 34% | 32% | 35% |
| | | | | |
| **Average Rent** | | | | |
| 2001 | $194 | $170 | $160 | $160 |
| 2006 | $306 | $280 | $258 | $200 |
| 2013 | $384 | $360 | $300 | $280 |
| | | | | |
| **Sector of Landlord** | | | | |
| Private | 96% | 97% | 97% | 84% |
| Public | 3% | 3% | 3% | 16% |
| | | | | |
| **Years at Usual Residence** | | | | |
| 0 Years | 34% | 24% | 27% | 22% |
| 1–4 Years | 33% | 35% | 34% | 30% |
| 5–9 Years | 16% | 22% | 21% | 21% |
| 10–14 Years | 8% | 11% | 10% | 11% |
| 15–29 Years | 7% | 8% | 6% | 11% |
| 30 Years or More | 1% | 1% | 2% | 5% |
| Average | 4.9 | 5.9 | 5.5 | 7.9 |
| | | | | |
| **Bedrooms** | | | | |
| One | 9% | 3% | 5% | 6% |
| Two | 18% | 13% | 13% | 19% |
| Three | 41% | 52% | 41% | 44% |
| Four + | 32% | 32% | 41% | 31% |
| Average Number of Bedrooms | 3.1 | 3.2 | 3.3 | 3.1 |

Table 5 shows that:

- Wakatipu has a unique mix of dwellings, with far more flats/apartments, and far fewer houses, than the rest of the district (and the rest of NZ)

- However, home ownership rates are much lower in Wakatipu than the national average, while those in the rest of the district are slightly higher than average.

- Average rents are quite high across the district, but less so in Wanaka.

- Very few dwellings are rented from the public sector, which suggests low reliance on State and/or Council housing provision.

- Residents are more mobile than the NZ average, particularly in Wakatipu.

- Dwellings are of average size, but slightly larger in Arrowtown and Wanaka.

## 3.2 Building Consents

While the census data provides a useful snapshot of the dwelling stock as it stood on census day, it does not reveal it evolved to reach that point. To understand that better, we analysed detailed building consent data dating back to 1999.

According to our database, consents for 8,500 new dwellings were issued in the district between 1999 and 2013 (inclusive). Figure 3 shows the trend over time.

**Figure 3**: New Dwellings consented Queenstown-Lakes vs NZ
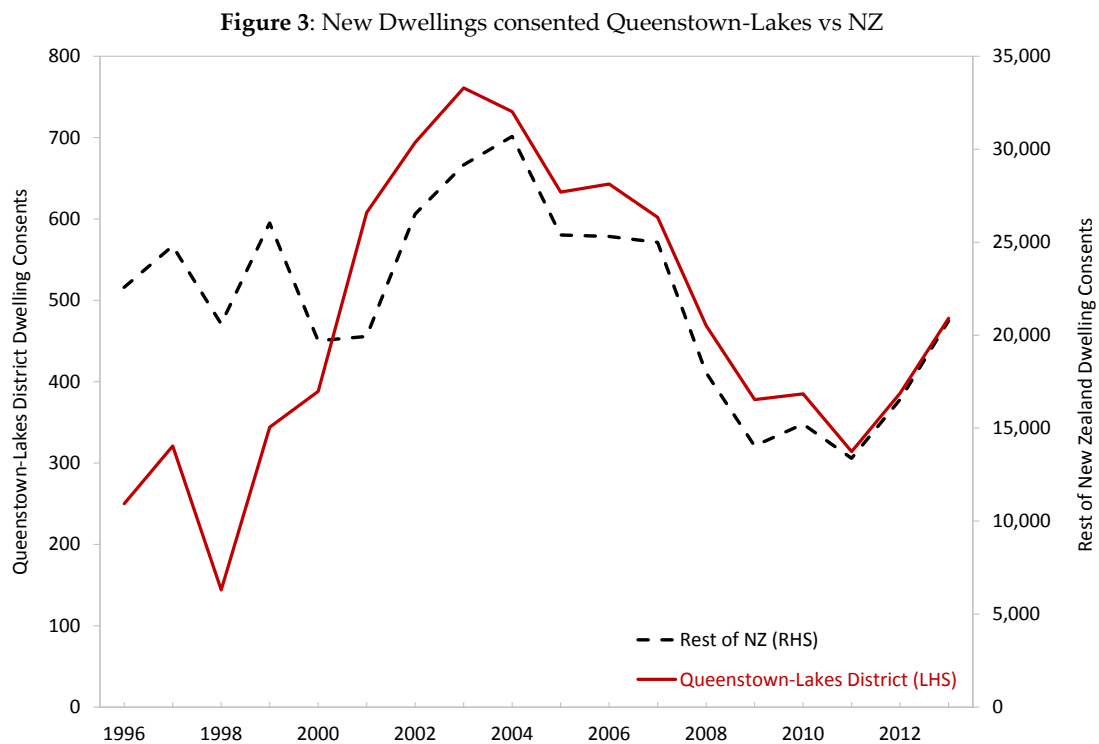


Figure 3 shows that district consents for new dwellings are quite volatile, but tend to mirror national trends, particularly since 2003.

Next, Figure 4 looks at how the size of new dwellings has changed over time. Again, the district appears to broadly follow the national trend, with the average size creeping up gradually over time. However, average size dropped sharply twice. This was due to a larger-than usual number of apartments being built in those years, which have smaller average floor areas. These spikes in apartment consents are illustrated in Figure 5, which shows the proportion of annual dwelling consents by dwelling type.

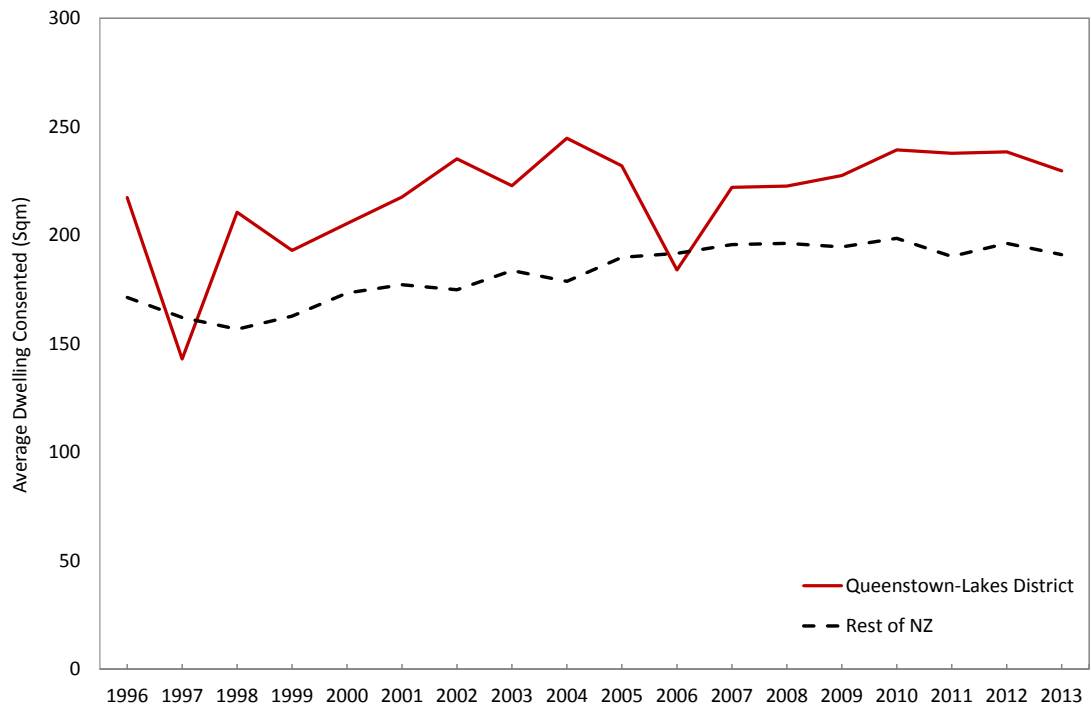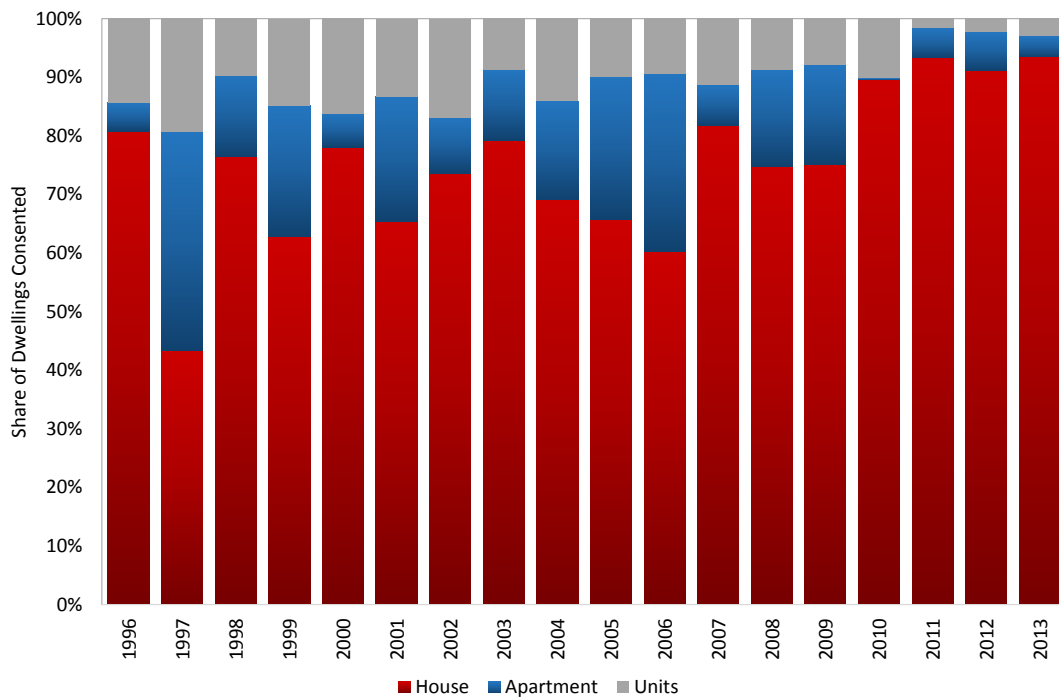**Figure 4**: Average Dwelling Size over Time



**Figure 5**: Share of Dwelling Consents by Type



Notwithstanding the occasional spikes in apartment consents shown above, there has been a notable increase in the share of new dwelling consents that were for houses. For example, over the last three years, houses accounted for 93% of new dwelling consents.

## 3.3 Housing New Zealand Bond Data

Finally, we use detailed bond data lodged with the Ministry of Business, Innovation and Employment (MBIE) to understand rental trends. These track the average rent paid by:

- District sub-areas
- Quarter,
- Dwelling type, and
- Number of bedrooms.

### 3.3.1 Rental Trends for all Dwellings

To begin, Figure 6 plots the trend in district-wide rents for all dwellings.
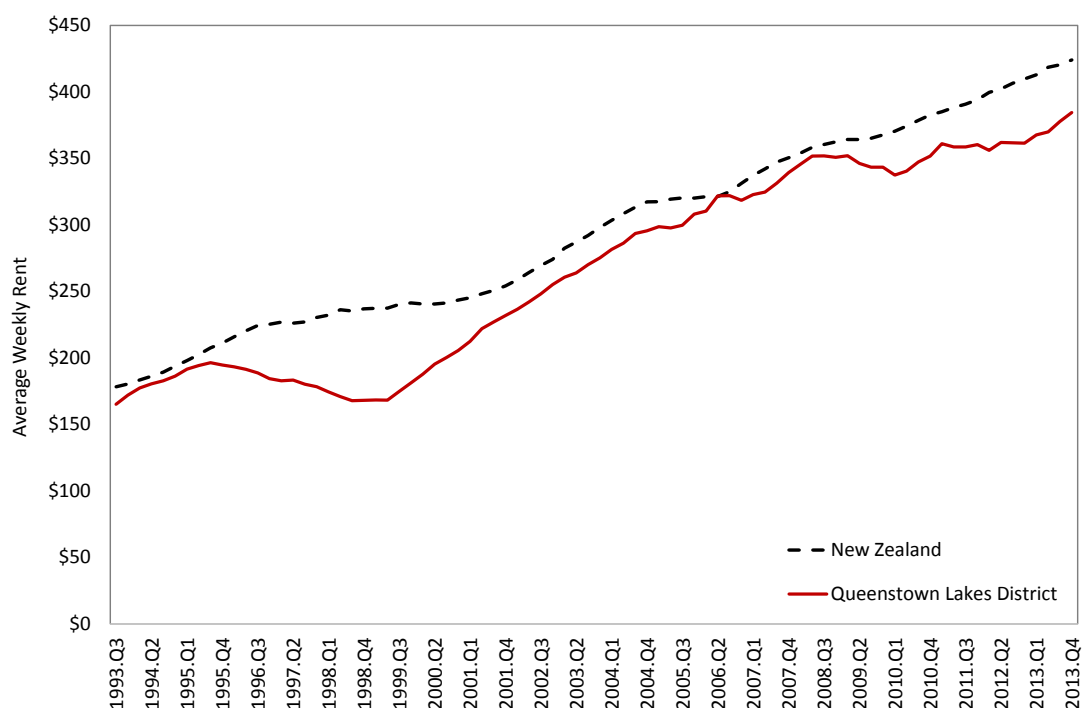
**Figure 6**: Average Quarterly District Rent, 1993 - 2014[1]



Figure 6 shows that average rents have increased steadily over the last 20 years, both in Queenstown and the rest of New Zealand. While

### 3.3.2 Rental Trends by Dwelling Type

Figure 7 shows the 20-year trend by dwelling type. It shows that rents for houses and apartments have grown quicker than for units/flats etc, although the underlying trends are similar.

---

[1] 1999.Q2 – 1999.Q4 were linearly interpolated to remove outliers in the data, due to a compositional change in the stock of dwellings over this time.
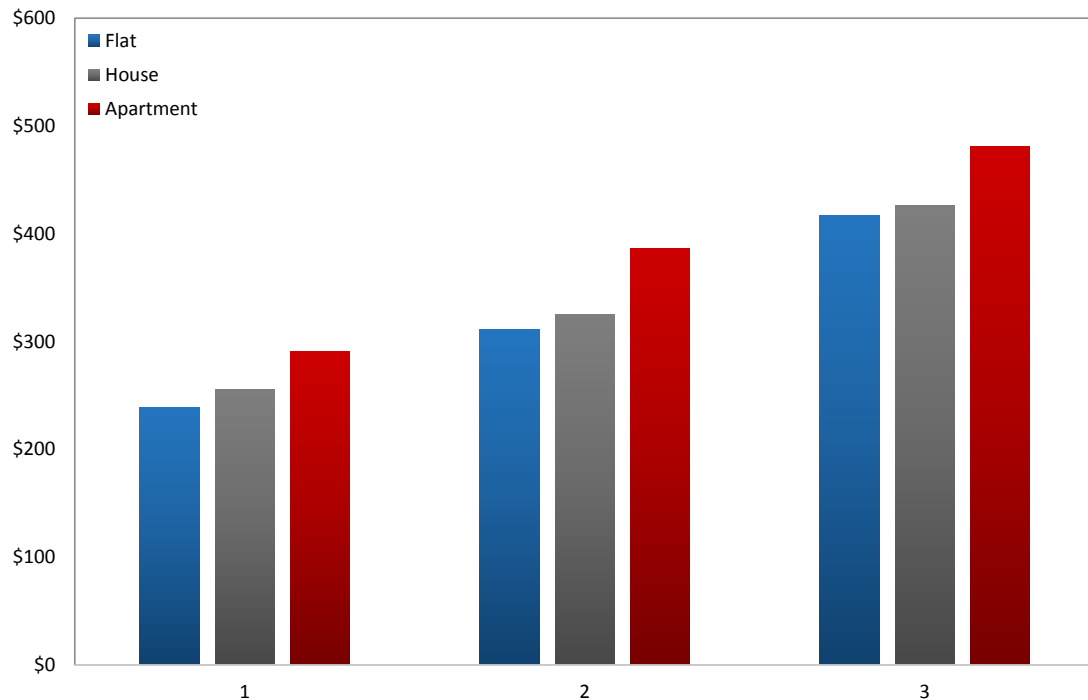
**Figure 7:** Smoothed Average Rent by Property Type in Queenstown, 1993 - 2014
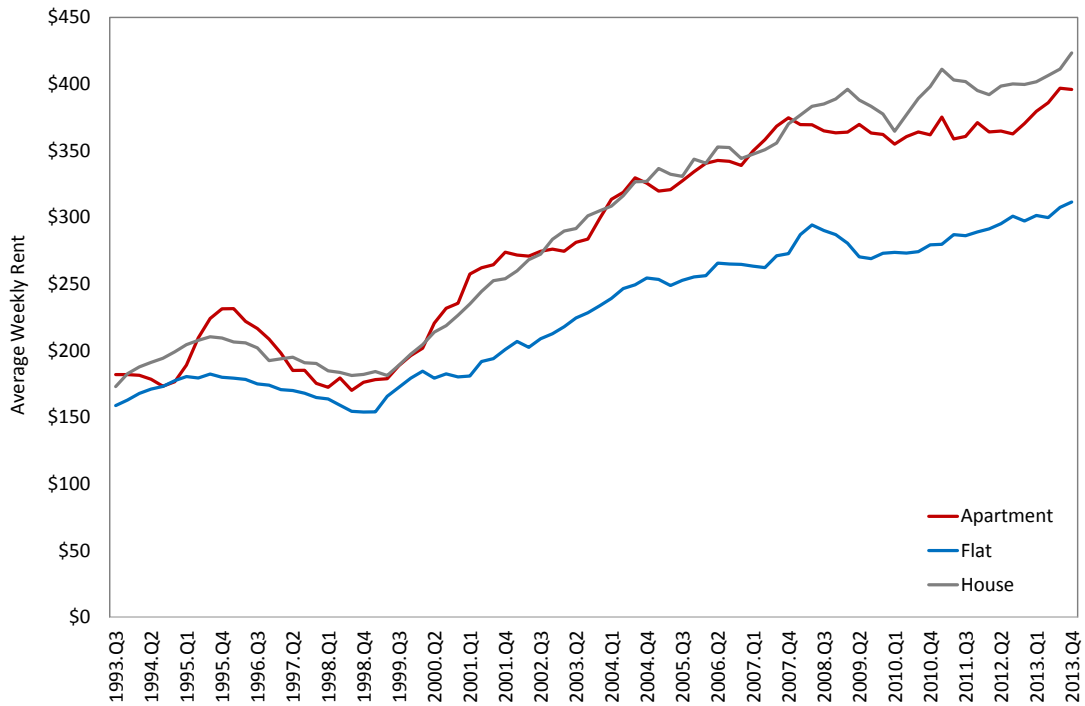


### 3.3.3 Current Rents by Dwelling Type and Number of Bedrooms

Next, Figure 8 shows current average rents by dwelling type and number of bedrooms.

**Figure 8:** Average Rent paid for Number of Bedrooms, Year End March 2014



While houses tend to have the highest rents overall – as shown in Figure 7 – Figure 8 shows that apartments are actually more expensive on a room-by-room basis. To explore this further, the following table shows the average rents by dwelling types and

number of bedrooms. Please note that some cells are blank because no new tenancies were lodged during that period.

**Table 6:** Average Rent by Number of Bedrooms Year Ending March 2014

| Dwelling Type/bedrooms | 1 | 2 | 3 | 4 | 5+ |
|---|---|---|---|---|---|
| Apartment | $290 | $370 | $480 | - | - |
| Flat | $240 | $310 | $420 | $400 | - |
| House | $260 | $320 | $430 | $510 | $610 |

## 3.4 Possible Implications for Future Dwelling Demand

The district has a fairly distinctive dwelling mix, with quite high numbers of attached dwellings in Wakatipu, but relatively low numbers elsewhere. However, recent dwelling consent trends signal much stronger growth in detached dwellings, which may alter the overall mix considerably in time.

Although the district has a fairly low reliance on public sector housing provision, home ownership rates are low in Wakatipu. This, in turn, is likely to reflect higher-than-usual demand for short-term, flexible living arrangements associated with younger, highly-mobile residents.

If recent trends continue, the district is likely to see a steady stream of consents for ever-larger stand-alone dwellings, with only moderate consents for other dwelling types.

# 4    Projections

While a good understanding of the past and present is important, so too is solid understanding of the district's likely future. Accordingly, this section briefly reviews various projections that have informed recent Council planning.

## 4.1    Projections Reviewed

Council identified three sets of projections that they use most often. They were:

1. Rationale's projections of population, visitor nights and employment, [2]
2. McDermott Miller's projections of visitor nights and employment, [3] and
3. Statistics New Zealand official population projections

The remainder of this section analyses the plausibility of the projections themselves and also analyses the robustness of the underlying inputs and assumptions.

## 4.2    Rationale

### 4.2.1    Underlying Logic

In 2011, Rationale generated projections of tourism nights, population and employment for the district. The following diagram illustrates the logic underlying their projections.

**Figure 9**: Logic Underlying the Rationale Projections



Put simply, Rationale first project tourism nights, which are then converted to employment and next residents. Later, residents are translated to households before finally being converted to dwellings. Given the district's strong tourism focus, we consider this a logical and sensible approach.

### 4.2.2    Inputs

As tourism nights are the key driver of Rationale's projections, we benchmarked their assumed growth rate against the historic average. In doing so, we found that Rationale had assumed average annual tourism nights growth of only 1.4% against a historic average of 4%. While we accept that tourism growth may not continue at the same pace as it has in the past, this does seem quite low (particularly now in light of pending increases in airport operating hours).

---

[2] Rationale, *Queenstown Lakes District Growth Projections*, March 2011

[3] McDermott Miller, *Review of District Plan Business Zones Capacity and Development of Zoning Hierarchy*, November 2013

### 4.2.3   Outputs

Next, we compared Rationale's population projections (the most commonly used ones) with the historic average, as well as the averages underlying Statistics New Zealand's official projections (which we discuss further below). Table 7 summarises the results.

**Table 7:** Comparison of Population Growth Rates

| Series/Report | Pop Growth p.a. |
|---|---|
| Stats Low projection | 1.4% |
| Stats Medium projection | 2.2% |
| Stats High projection | 2.9% |
| Rationale 2011 | 2.4% |
| **Historic Average** | **4.3%** |

Table 7 shows that Rationale's population projections are quite low relative the historic average, but in line with the official population projections. The following graph shows how these various projections play out over a 20 year period.

**Figure 10:** Population Projections for QLD
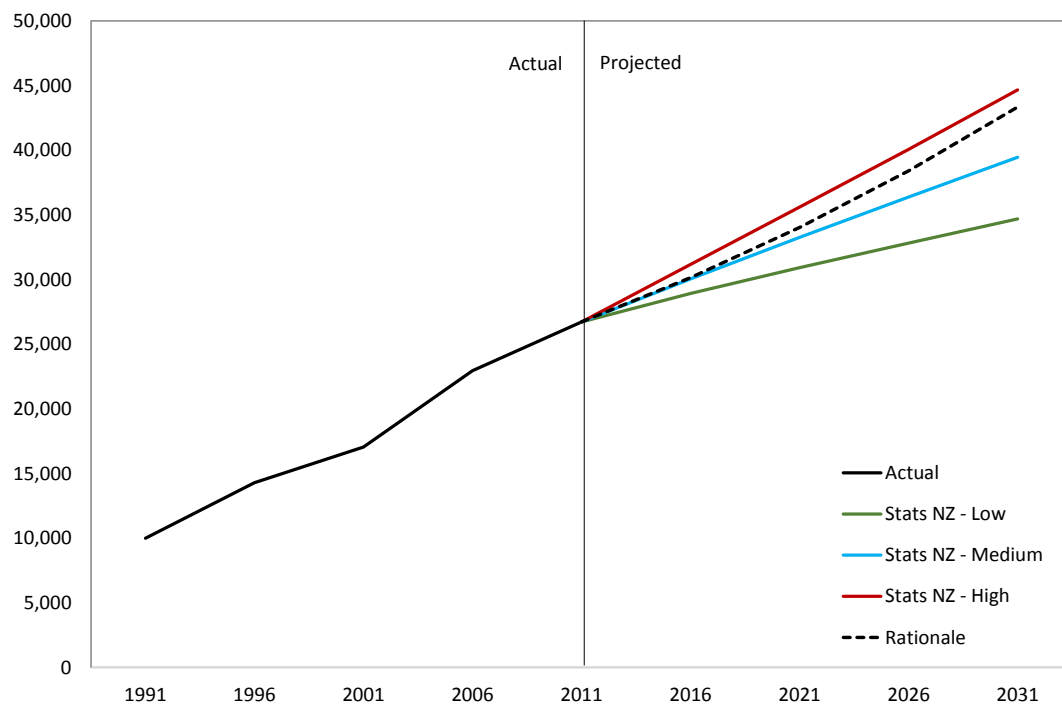


### 4.3   McDermott Miller

In late 2013 McDermott Miller was commissioned to investigate the supply of commercial and town centre land. As part of this, they generated their own population and tourism projections.

### 4.3.1   Logic

The following diagram illustrates the logic used in McDermott Miller's report.

**Figure 11:** Logic used fir McDermott Miller Projections
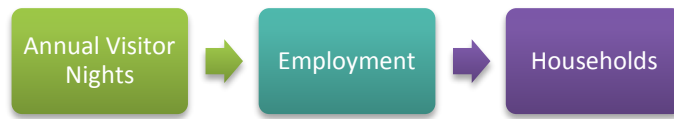


McDermott Miller's approach was similar to Rationale, in that they also started from tourism nights. However, unlike Rationale, McDermott Miller adopted a scenario-based approach so that a range of potential outcomes could be tests. We agree with their use of scenarios, and consider them a valuable addition to any baseline projection.

Following are descriptions of the scenarios used, as paraphrased from their report.

- **Status Quo** – this is the baseline scenario. It assumes no significant changes to the tourism product or operating hours of the airport. Visitor nights grow linearly based on recent growth rates until 2021 where they are halved.

- **Tourism Driven Variant 1 (TDV1)** – Airport expansion and marketing double the international visitor growth rate and lifts the daily international visitor spend 5%; Wanaka grows at status quo rate.

- **Tourism Driven Variant 2 (TDV2)** – Significant investment in tourism-related developments leads to three times the status quo of growth in international visitor nights and a 25% increase in spending per visitor; complemented by a 10% increase in daily domestic visitor spending. Wanaka grows at the status quo rate.

### 4.3.2 Inputs

Once again we compare the key input (visitor night growth) with the historical average.

**Table 8:** Projected Annual Growth in Visitor Nights

| Series/Report | Visitor Growth p.a. |
|---|---|
| MDM - Status Quo | 2.4% |
| MDM - TDV1 | 4.4% |
| MDM - TDV2 | 5.6% |
| **Historic Average** | **4.0%** |

Table 8 shows that the tourism growth assumptions used by McDermott Miller are a closer fit with the historic average, although TDV2 may be a little too aggressive.

### 4.3.3 Outputs

Table 9 below benchmarks the average annual population growth rates for McDermott Miller's various scenarios against the historical average and statistics New Zealand's official projections..

**Table 9:** Average Annual Projected Growth in Population

| Series/Report | Pop Growth p.a. |
|---|---|
| Stats Low projection | 1.4% |
| Stats Medium projection | 2.2% |
| Stats High projection | 2.9% |
| MDM - Status Quo | 1.5% |
| MDM - TDV1 | 2.7% |
| MDM - TDV2 | 4.4% |
| **Historic Average** | 4.3% |

Table 9 reveals something quite interesting about the McDermott Miller projections. Take, for example, their population projection for TDV1. This equals 2.7% even though the corresponding tourism night projection was 4.4%. In our view, it seems unlikely that this level of tourism growth could be serviced by only 2.7% population growth, particularly given that the long run averages were 4% for tourism and 4.3% for population. This raises some questions about the method used to translate tourism nights into population and employment.

## 4.4   Official Statistics New Zealand Projections

As noted above, Statistics New Zealand produces official population forecasts under low, medium and high scenarios. Further, as also noted above, these official projections seem to imply significantly lower growth than the historic average. For instance, the medium projection translates to annual population growth of only 2.2%, which is just over half the historic average.

In order to better understand how the official projections were reached, we ordered customised data that showed all the underlying inputs. While the assumptions related to births and deaths looked fine, we spotted something unusual about the migration assumptions. In particular, the forecast migration numbers looked very low compared to the historic average, especially for younger adults. To illustrate this, Figure 12 plots the past and projected future number of net migrants aged 15-39 years olds. The red bars denote historic values, and the grey bars projected future values.
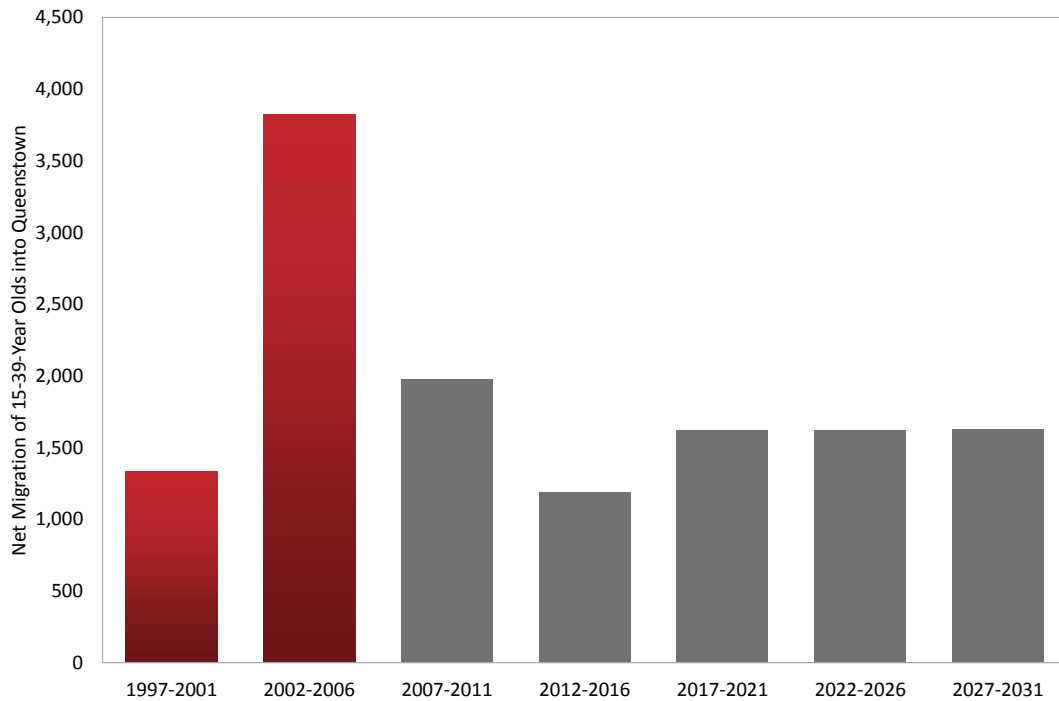
As we can see, the number of assumed future migrants aged 15 to 39 is low compared to the past, which is also why the official projections seem low relative to historic growth. As a final cross check, the following population pyramids compare the district's current age distribution with the distribution implied by the high official projection. Of particular note is the significant flattening out of people aged 25 to 44, who form the backbone of the district's tourism industry.

**Figure 13:** Population Pyramids for QLD in 2013 and 2013
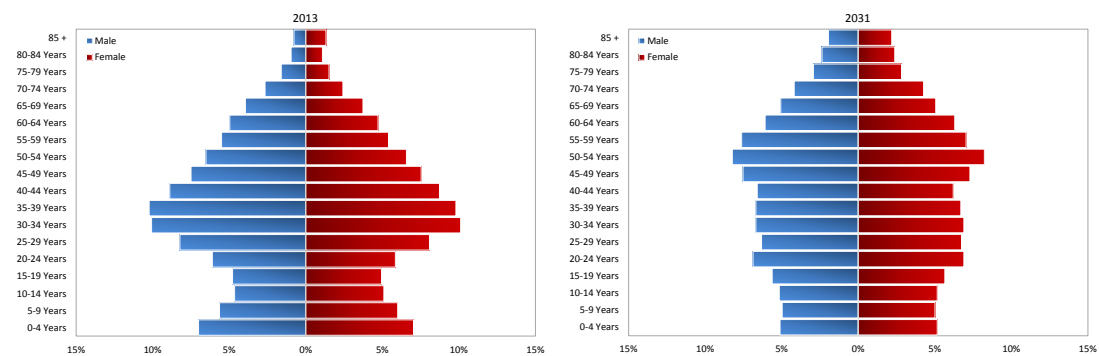


## 4.5    Summary of Findings

We now summarise our findings with regard to the various projections reviewed above. For ease of reference, Table 10 brings all the inputs and outputs together in one table.

**Table 10:** Summary of Projections (Inputs and Outputs)

| Series/Report | Population | Employment | Visitor-Nights |
|---|---|---|---|
| Stats Low projection | 1.4% | - | - |
| Stats Medium projection | 2.2% | - | - |
| Stats High projection | 2.9% | - | - |
| Rationale 2011 | 2.4% | 2.5% | 1.4% |
| MDM - Status Quo | 1.5% | 1.4% | 2.4% |
| MDM - TDV1 | 2.7% | 2.6% | 4.4% |
| MDM - TDV2 | 4.4% | 4.1% | 5.6% |
| **Historic Averages** | **4.3%** | **5.1%** | **4.0%** |

Our views can be summarised as follows:

- Given the historic average, we believe that the TDV2 tourism projections are too high, while Rationale's are too low. Same, too, for the corresponding population projections.

- Given the pending increase in airport hours/capacity, the Status quo tourism numbers look too low, while the TDV1 visitor projections look about right (if perhaps a little ambitious).

- However, the rate of population growth associated with TDV1 looks too low. Indeed, it seems unlikely that 4.4% annual tourism growth could be sustained on the back of 2.7% population growth.

- As a result, we believe that there is scope to generate a fresh set of population projections to inform the rest of the project, which we outline in the next section.

# 5 Revised Projections

Finally, this section outlines our revised population projections.

## 5.1 Methodology

We created a cohort component model akin to the method used by Statistics New Zealand for their official population projections. This model rolls forward the population from one year to the next on the basis of assumed births, deaths and net migration. This is illustrated below.

**Figure 14:** Cohort Component Model Methodology



## 5.2 Assumptions Used

Wherever possible, we have pegged our assumptions to those used by Stats NZ. For instance, we adopted their high fertility assumption and also their high survivorship assumption. However, rather than using their migration assumptions, we derived our own based on the 10 year historical average (1996 – 2006). Specifically, we set migration for the first five years equal to the 10 year average, and then let it grow 5% every five year. Figure 15 plots the resulting migration assumptions.

**Figure 15:** Migration Assumptions in Insight Economics Cohort Component Model
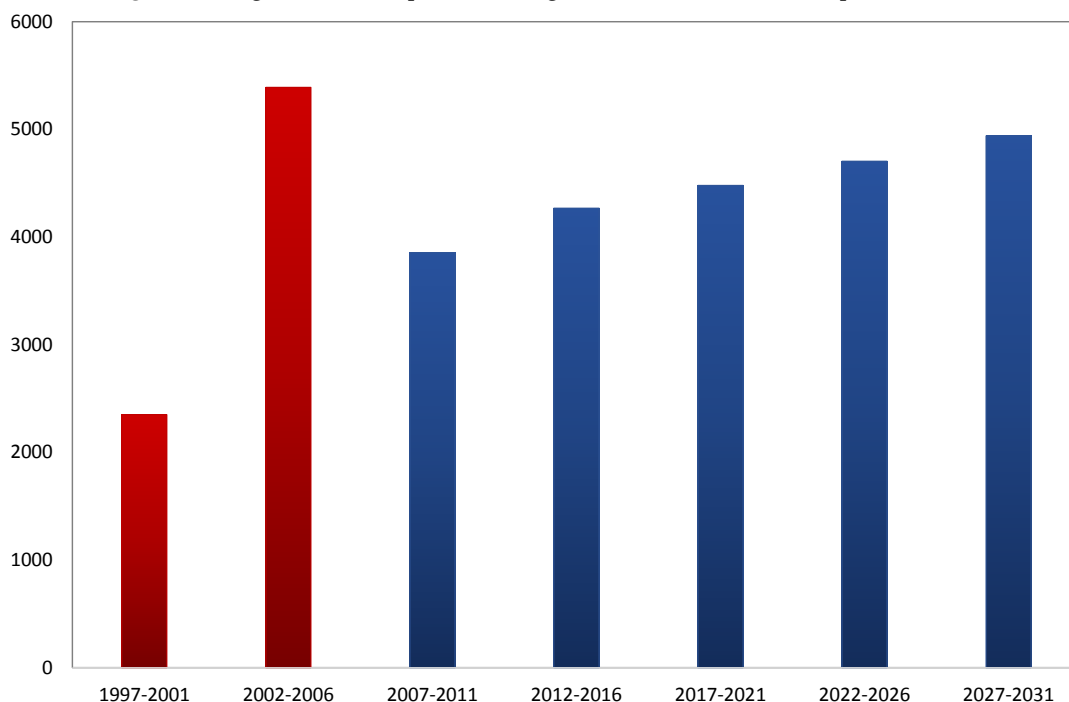
## 5.3    Results

Plugging these assumptions into our model generated an estimated population of around 55,000 by 2031. This represents as annual average growth rate of 3.4%, and is conservative relative to the historic annual growth rate of 4.3%. The following graph shows how our projections track over time relative to the official projections:

**Figure 16:** Revised Population Projections
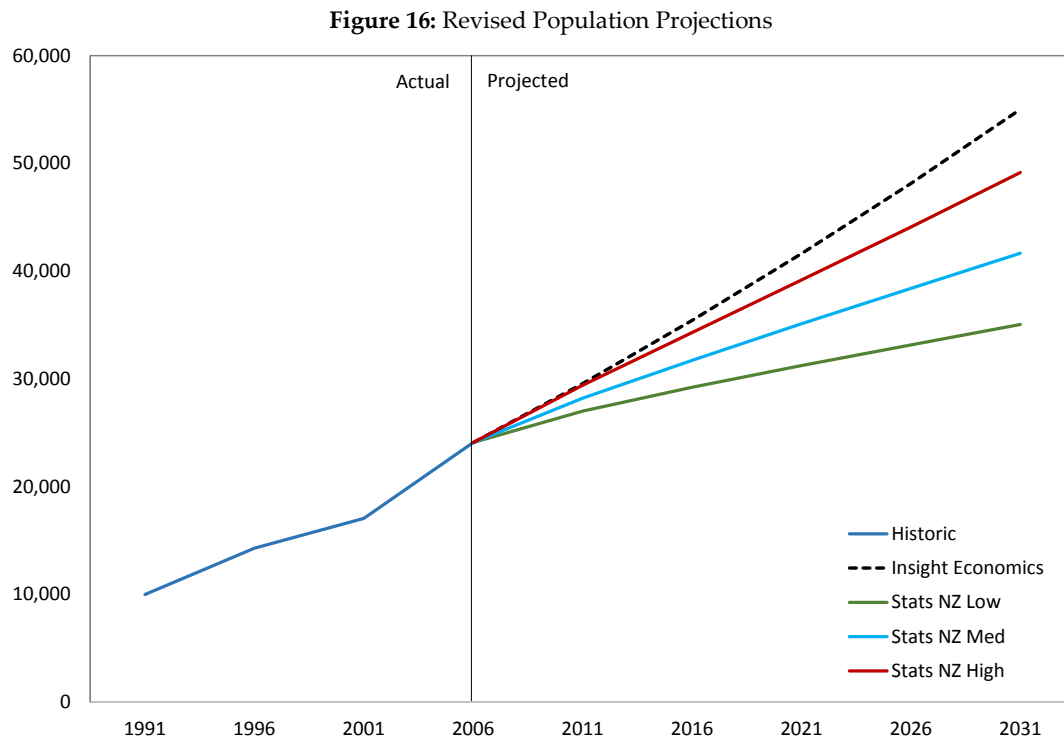


Finally, Figure 17 plots the population pyramid in 2031 associated with our projection alongside that for the Stats NZ high scenario. Ours is on the left, while Stats NZ on the right.

**Figure 17:** Revised Population Pyramid and Stats NZ High Projections 2031
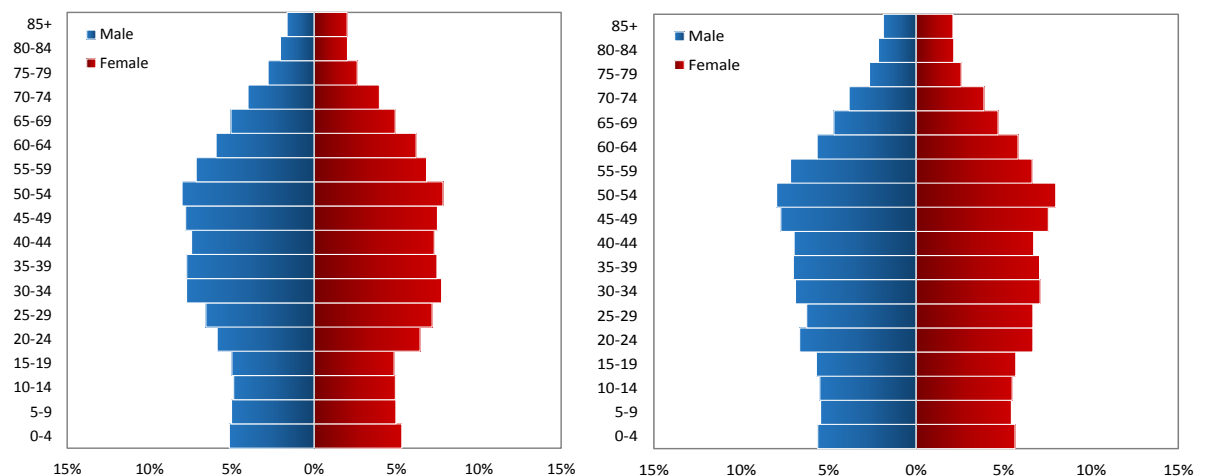
# 6    Conclusion and Recommendations

This report has reviewed a wide range of background data to inform our study of medium/high density housing. In addition, it has reviewed a range of tourism, population and employment projections that have been used in recent planning work.

The data strongly suggest that the district will continue to experience high population growth and hence that demand for new dwellings will also be strong. In fact, we believe that future growth is likely to exceed the levels associated with recent projections, particularly if the district's tourism industry continues to flourish. Accordingly, we believe the Council should start to consider how it might capitalise on these growth opportunities to secure a brighter economic future for ratepayers, both now and in the future. Failure to do so could cause the district to not reach its full potential.

# Medium to High Density Housing Study: Stage 1b – Dwelling Capacity Model Review

**PREPARED FOR**

## QUEENSTOWN LAKES DISTRICT COUNCIL

**INSIGHT ECONOMICS**  CLEAR AND CONCISE SOLUTIONS BASED ON RIGOROUS RESEARCH AND ANALYSIS

**Authorship**

This document was written by Fraser Colegrave and Steve Hoskins. For further information, please contact Fraser at the details below:

**DDI:** (09) 366 6416

**Mobile**: (021) 346 553

**Email**: fraser@insighteconomics.co.nz

**Web**: www.insighteconomics.co.nz

# Contents

# 1    Introduction

## 1.1    Context and Purpose of this Report

Queenstown Lakes District Council (QLDC) is currently reviewing its District Plan. To assist, we were commissioned to help project the supply and demand for medium to high density housing over the next 15 to 20 years, and help identify options to meet any potential shortfalls in land supply.

## 1.2    Scope and Purpose of this Report

The project has been split up into four stages. This report covers stage 2. It reviews the dwelling capacity model (DCM) used by the Council to estimate the theoretical capacity for residential growth.

The purpose of this report was twofold:

1.    To determine whether the DCM's logic is sound, and
2.    To examine whether its inputs and assumptions were reasonable.

However, since a thorough review of the DCM's logic found no issues, there is nothing much to report here.[1] Instead, we focus on potential changes in the DCM feasibility factors, which are used to scale theoretical capacity to 'actual capacity.' Overall, we consider these too high.

## 1.3    About this Revised Report

This report was originally completed in July 2014, but is now being revised to incorporate the findings of a similar piece of work in Auckland – the topic 013 expert report into residential land supply. We formed part of that expert group, and have agreed to update this report on behalf of the Council to ensure it reflects the key findings of the 013 report – the most comprehensive and up-to-date report of its kind in New Zealand.

## 1.4    Structure of the Report

The remainder of this report is structured as follows:

- **Section 2** describes and quantifies the feasibility factors currently in the DCM.

- **Section 3** suggests principles to guide the possible refinement of these factors.

- **Section 4** identifies various issues to consider during refinement, and

- **Section 5** provides preliminary estimates of new DCM feasibility factors.

---

[1] For a comprehensive review of the model's logic and structure, please download the user manual here on Council's website: http://www.qldc.govt.nz/growth_projections_and_capacity

# 2    DCM Feasibility Factors

This section briefly describes the feasibility factors currently in the DCM.

## 2.1    Issues Taken into Account

As noted above, the DCM applies feasibility factors to scale theoretical capacity down to reach 'actual capacity.' For instance, a value of 80% means that actual capacity equals 80% of theoretical capacity. According to the user manual, these adjustments reflect:

- Access;
- Physical conditions;
- Existing dwelling size and location;
- Quality and age of existing dwelling;
- The shape of the development land;
- The existence of covenants, and
- Roading required

## 2.2    Range of Values

Table 1 identifies the feasibility factors apparently used in the DCM.

**Table 1:** Feasibility Factors Currently in the DCM

| Zone | Category | Feasibility Factors |
|---|---|---|
| Town Centres | All types | 100% |
| Rural Visitor Zone | All types | 100% |
| High Density Residential Zone | All types | 100% |
| Kelvin Heights | All types | 100% |
| Township Zone | Infill Sites | 80% |
| | Small Infill | 80% |
| | Vacant Infill | 100% |
| | Infill Vacant below min lot size | 100% |
| | Greenfield | 70% |
| Low Density Zone | Infill Vacant below min lot size | 100% |
| | Small Infill Land Use Consent | 80% |
| | Small Vacant Infill Land Use Consent | 100% |
| | Medium Infill SD | 80% |
| | Medium Infill Vacant SD | 80% |
| | Greenfield | 72% |
| Medium Density Subzone | Infill Vacant below min lot size | 100% |
| | Small Infill Land Use Consent | 80% |
| | Medium Infill SD | 100% |
| | Medium Infill Vacant SD (subdivision) | 80% |
| | Greenfield | 72% |
| Rural Residential Zone | Above minimum lot size | 90% |
| | Below minimum lot size | 100% |
| Rural Lifestyle Zone | All types | 100% |
| Special Zones | Jacks Point | 100% |
| | Remarkables Park | 100% |
| | Other | 100% |

Just as an example: the feasibility factor in the high density zone is 100%, which means that 'actual capacity' equals theoretical capacity, with absolutely no downward adjustments for site slope, stability, contamination, the value of existing capital improvements and so on.

## 2.3    Discussion

While we endorse the use of feasibility factors and agree with the various constraints identified in section 2.1, the feasibility factors themselves feel too high. For example, it is unlikely that 100% of high density zoned land will actually be brought to the market over the next 15 to 20 years as the DCM effectively implies. As a result, the DCM is likely to systematically overstate true supply by a significant margin.

Accordingly, in the next section, we identify various principles that should be considered when possibly refining these factors in future.

# 3    Guiding Principles

Following are some key principles that we believe should guide the derivation of new feasibility factors.

- **Simple** – the feasibility factors should be as simple as possible.

- **Transparent** – the factors should also be as transparent as possible.

- **Comprehensive** – the factors should collectively cover everything that will realistically affect future development yields.

- **Pragmatic –** the factors should be grounded in reality as much as possible.

- **Conservative –** finally, the factors should be conservative, so that the resulting estimates of supply are also conservative.

Although these principles are probably self-explanatory, it seems useful to provide a little more discussion around the last one – conservatism. The overarching reason for this principle is that – all other things being equal – a more conservative estimate of current capacity will mean that more land is rezoned to meet any perceived shortfalls. And this more aggressive rezoning will have two important benefits:

1. At present, district land supply appears to be fairly tightly held by a relatively small number of big players. While this is not necessarily a problem, the resulting concentration of supply can lead to strategic gaming. Specifically, absent much competition, large land holders may choose to bank most of their land and drip-feed only small amounts into the market. By restricting supply, they drive up prices and thus enable their banked land to fetch a premium at later dates.

   A more aggressive supply of rezoned land will help increase the number of land holders and hence reduce the degree of market power enjoyed by individual land owners. As a result, there will be reduced scope for market manipulation.

2. In addition to eroding incentives for strategic gaming, a higher quantity of rezoned land will also increase the amount available over the short to medium. This, in turn, will help reduce inflationary pressures and hopefully avoid a repeat of the excessive price inflation seen in the past.

It is probably also worth noting that more aggressive land supply can sometimes come at a cost. Most importantly, an increased supply of land often requires the council to incur significant up-front infrastructure and servicing costs. However, since most of the land under consideration in Queenstown is either already serviced or planned to be in the near future, this is not really an issue.

# 4    Issues to Consider for Revised Factors

This section identifies various issues to consider when setting new feasibility factors.

## 4.1    Development Feasibility

The first consideration for each parcel of land should be the feasibility of development. This should account for the following sorts of issues:

- Flood risk
- Geotechnical issues
- Landslips, and
- Site contamination

Based on discussions with Council, it was decided that a 10% reduction would be used in most areas, with more refined estimates for specific areas. For example, a recent study for Kelvin Heights suggested that only around half of available land would be feasible,[2] while the recent greenfields development at Lake Hayes Estate achieved around 95% feasibility.

## 4.2    Viability

The next consideration is the viability of development. This is critical, as development will only occur if it is (at least perceived to be) viable. At this stage, we suggest that viability be considered only for developed land, as the exercise for undeveloped land is very complex and prone to greater uncertainty. In addition, the recent Lake Hayes example suggests that high feasibility rates are likely on greenfields land anyway.

For developed land parcels, the viability of development essentially depends on the relative values of land and improvements. In other words, the more valuable the land relative to the buildings, the more likely that it will be redeveloped over time (and vice versa).

The issue then is to decide the level at which the ratio of improvements to land value makes development unviable. According to our research, and based on discussions with the Council, we believe that a developed parcel should **be deemed unviable if the value of improvements is greater than 1.25 times the value of the land**[3].

While this ratio may be higher than those used in other areas[4], it is important to realise that they will evolve over time. This is because land values will likely continue to rise, while improvements will remain static or even lose value via depreciation. Consequently, the ratio of improvements to land values will also fall over time, so these calculations will need to be run periodically and the DCM updated accordingly. In the

---

[2] Kelvin Heights – Dwelling Capacity Review by Aurum Survey Consultants, 2014

[3] This approach is used in a variety of countries and cities including Adelaide and Portland and is discussed by Patrick Fontein in Auckland Plan, Total Auckland Development Potential commissioned by Auckland Council.

[4] For example, the "Buildable Land Inventory" in Portland is calculated based on a ratio of 0.5. 2012.

meantime, and reflecting the recent "expert report" from Auckland, we agreed with Council that a blanket reduction of 75% should be applied to all developed land in the High Density Zone (and 50% to all other land with infill potential) when considering a 15-year estimate of supply. However, if a current or near-term "snapshot" of current capacity is desired[5], then a ratio of 0.75 should be applied, which results in a significantly higher reduction in effective capacity/supply.

## 4.3    Marketability/Desirability

Not all sites will be attractive to the market. The literature quotes several reasons for this, including:

- Vendor price expectations
- Site location
- Size and shape of the land – i.e. the length and depth as well as odd shaped lots
- Site conditions – slope, topography and environmental conditions
- Transport accessibility
- Proximity to shops, community services and open space
- Distance to city centre
- And so on[6].

We recommend that capacity be reduced by 5% to account for these.

## 4.4    Land Use Displacement

While the various land uses enabled by each zone are clearly set out in the district plan, they do not guarantee what type of development will actually occur on each site. As a result, land earmarked primarily for residential development may end up being used for other purposes.

We understand that this is a major issue in the high density zone, where a lot of visitor accommodation has been built over time. Discussions with Council Officers indicated that roughly 40% of land use consents in high density zones over the last 3 years have been for visitor accommodation.[7] However, they believed that this was a boom, with lower levels likely to be sustained in future. Real estate agents also seemed to share this view, and pointed to a likely cooling in future years. As a result, it was agreed that the

---

[5] For example, to aid planning for Special Housing Areas.

[6] See for example:

(i) Pacione, M. The Site Selection Process of Speculative Residential Developers in an Urban Area. Housing Studies volume 5 number 4 pp219-229, 1990.

(ii) Guidelines Higher Residential Densities in Low Income Developments – Based on the Missionvale Experience December 2000

(iii) Vartivarian, T. Site Selection & Pre-Development Manual for Commercial Development in Detroit. 1997.

[7] This topic is covered in some detail here:

http://www.qldc.govt.nz/plan_change_23_visitor_accommodation_and_residential_amenity/category/294/

theoretical capacity in the high density zone be reduced by 30%. In all other zones, we recommend that a uniform reduction of 5% be applied.

## 4.5    Greenfields Roads and Reserves

A common development assumption for greenfields land is that around 20% will be used for the provision of new roads and reserves. This should be taken into account when calculating dwelling capacity.

## 4.6    Likelihood of Market Participation

Finally, an adjustment should be made to reflect the fact that, even if a parcel meets all the criteria above, it may still never be brought to market. For example, a piece of land may have been held in the same family for several generations, with little prospect of it ever being sold. To account for this, we recommend a further reduction of 30% for developed parcels and 5% for undeveloped.

## 4.7    Examples of the Calculations

Before listing the preliminary new factors for each zone/parcel type combination in the next section, we first show two worked examples – one for the high density zone, and the other for Kelvin Heights.

**Table 2:** Examples of the Calculations

| Issues to Consider | Kelvin Heights | High Density Zone |
|---|---|---|
| (a) Development Feasibility | 50% | 10% |
| (b) Viability | 10% | 75% |
| (c) Marketability | 5% | 5% |
| (d) Land Use Displacement | 5% | 30% |
| (e) Greenfields Roads/Reserves | 0% | 0% |
| (f) Likelihood of Market Participation | 5% | 30% |
| **Feasibility = (1-a)*(1-b)*(1-c)*(1-d)*(1-e)*(1-f)** | **39%** | **10%** |

Thus, our proposed feasibility factors are 39% for Kelvin Heights and 10% for the high density zone. At present, both have feasibility factors of 100%.

# 5 Preliminary New Feasibility Factors

Finally, this section presents our preliminary new feasibility factors for each zone/parcel type combination. Please note that these are only rough first drafts, and will require significant internal testing and refinement.

**Table 3:** Current and Preliminary Recommended Feasibility Factors

| Zone | Category | Current (DCM) | Preliminary |
|------|----------|---------------|-------------|
| Town Centres | All types | 100% | 69% |
| Rural Visitor Zone | All types | 100% | 69% |
| High Density Residential Zone | All types | 100% | 10% |
| Kelvin Heights | All types | 100% | 39% |
| Township Zone | Infill Sites | 80% | 69% |
| | Small Infill | 80% | 28% |
| | Vacant Infill | 100% | 69% |
| | Infill Vacant below min lot size | 100% | 69% |
| | Greenfield | 70% | 72% |
| Low Density Zone | Infill Vacant below min lot size | 100% | 69% |
| | Small Infill Land Use Consent | 80% | 28% |
| | Small Vacant Infill Land Use Consent | 100% | 69% |
| | Medium Infill SD | 80% | 28% |
| | Medium Infill Vacant SD | 80% | 69% |
| | Greenfield | 72% | 72% |
| Medium Density Subzone | Infill Vacant below min lot size | 100% | 28% |
| | Small Infill Land Use Consent | 80% | 28% |
| | Medium Infill SD | 100% | 69% |
| | Medium Infill Vacant SD (subdivision) | 80% | 69% |
| | Greenfield | 72% | 72% |
| Rural Residential Zone | Above minimum lot size | 90% | 69% |
| | Below minimum lot size | 100% | 69% |
| Rural Lifestyle Zone | All types | 100% | 69% |
| Special Zones | Jacks Point | 100% | 69% |
| | Remarkables Park | 100% | 69% |
| | Other | 100% | 69% |

Table 3 shows that our recommended feasibility factors are significantly lower than the current ones in most cases. However, they are slightly higher for one of the three greenfields areas. Overall, however, our recommendations signal fairly significant reductions in likely future capacity dwelling, which have direct implications for future rezoning requirements.