

**BEFORE THE HEARINGS PANEL  
FOR THE QUEENSTOWN LAKES PROPOSED DISTRICT PLAN**

**IN THE MATTER** of the Resource Management Act  
1991

**AND**

**IN THE MATTER** of the Rezoning Hearing Stream 12  
- Upper Clutha

---

**STATEMENT OF EVIDENCE OF PHILIP MARK OSBORNE  
ON BEHALF OF QUEENSTOWN LAKES DISTRICT COUNCIL**

**DWELLING CAPACITY**

**1 May 2017**

---

---

 **Simpson Grierson**  
Barristers & Solicitors

S J Scott  
Telephone: +64-3-968 4018  
Facsimile: +64-3-379 5023  
Email: sarah.scott@simpsongrierson.com  
PO Box 874  
SOLICITORS  
CHRISTCHURCH 8140

## TABLE OF CONTENTS

1. INTRODUCTION .....	1
2. EXECUTIVE SUMMARY .....	2
3. SCOPE OF THIS EVIDENCE .....	3
4. THE MODEL PURPOSE, SCOPE AND GUIDING ASSUMPTIONS .....	4
5. THE DISTRICT'S RESIDENTIAL MARKET AND POPULATION PROJECTIONS .....	7
6. SUMMARY OF 'FEASIBILITY' FACTORS CONTRIBUTING TO THE UPDATED MODEL .....	10
7. SUMMARY OF UPDATED DEVELOPMENT CAPACITY MODEL OUTPUTS FOR UPPER CLUTHA .....	14

## 1. INTRODUCTION

- 1.1 My name is Philip Mark Osborne. I am an Economic Consultant for the company Property Economics Ltd, based in Auckland. My qualifications include – Bachelor of Arts (History/Economics), Masters in Commerce, a Masters in Planning Practice, and have provisionally completed my doctoral thesis in developmental economics.
- 1.2 For the past thirteen years I have been an economic property consultant for Property Economics. Previous to this I have been a business analyst to several large firms both here and in Europe. I also taught economics at both the secondary and tertiary level.
- 1.3 I have recently advised, and currently advise, central government organisations such as the Ministry for the Environment and the Ministry for Business Innovation and Employment as well as local authorities including Christchurch City, Napier City, Auckland Council, Wellington City and Wellington Regional Councils, Waikato Regional Council, and Far North Councils in relation to forward planning and resource valuation issues. I also provide consultancy services to a number of large private sector clients in regard to a wide range of property issues, including economic impact assessments, forecasting market growth, determining future land demand for the residential and business sectors, and economic cost-benefit analysis.
- 1.4 My evidence is provided on behalf of Queenstown Lakes District Council (**Council**) and relates to the on-going work stream that Property Economics is producing for the Council, in updating its Dwelling Capacity Model (**DCM**) and to provide evidence specifically in relation to the Upper Clutha (Wanaka Ward). I understand that a similar focus will be required in the Queenstown, and subsequent Wakatipu hearings. I also wish to reiterate that, when land that has not been notified in Stage 1 is notified in a subsequent Stage, that the DCM will need to be revisited.
- 1.5 Although this is a Council hearing I confirm that I have read the

Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and that I agree to comply with it. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise, except where I state that I am relying on the evidence of another person.

## **2. EXECUTIVE SUMMARY**

- 2.1** The Queenstown District's property market has experienced significant changes over the past 15 years both from real changes in the market and as a result of substantial levels of speculation. As such there is pressure on all forms of land use activities with residential affordability levels at a national low.
- 2.2** The PDP seeks to address this issue, in part, with changes to provisions allowing greater degrees of development and redevelopment for the purposes of increasing the quantum, choice and consolidation of residential activity in appropriate locations.
- 2.3** The District is recognised as one of New Zealand's high growth areas and is expected to see doubling of usually resident<sup>1</sup> population over the next 30 years. This, coupled with the demand for residential visitor accommodation, will see demand for nearly 15,000 additional dwellings over this period.
- 2.4** The Upper Clutha area too is expected to see substantial growth with nearly 3,000 new dwellings required by 2028 and 5,000 by 2048.
- 2.5** The residential capacity enabled for the District under the PDP provisions has been estimated at 43,000 dwellings with 14,000 of these within the Upper Clutha catchment. It is however important to filter this capacity through market factors that will provide a greater understanding of whether the market is actually likely to supply this capacity.

<sup>1</sup> Based on Rationale Projections outlined later in the evidence

**2.6** Having undertaken such an assessment the feasible capacity, understandably, represents a reduced component of the enabled capacity. For the District it is expected that the market could provide as many as 23,800 dwellings (when considering the Special Purpose Zones) with current conditions providing 5,400 of these to the Upper Clutha market. In relation to the current market there are 18,000 dwellings current occupied and unoccupied in the District with 7,000 of these located within the Upper Clutha area.

**2.7** Given the timeframes involved and the level of development potential provided within the PDP, there is more than sufficient capacity for the market to meet expected future demand.

### **3. SCOPE OF THIS EVIDENCE**

**3.1** The purpose of this evidence is to:

- (a) outline the process undertaken to assess the 'feasible' capacity, through the DCM, for residential development facilitated through the Proposed District Plan (**PDP**) provisions;
- (b) provide the outputs of the updated dwelling capacity model; and
- (c) assess whether the PDP provisions are sufficient to provide the market with sufficient impetus to meet the projected residential dwelling demand for the Upper Clutha area, from an economic perspective.

**3.2** My evidence also seeks to contextualise the enabled capacity facilitated through the PDP in the current market faced by the District, with a particular focus on the Upper Clutha. This evidence attempts to address the potential market response to increased opportunities provided under the PDP. As mentioned above, evidence focused on Queenstown and the Wakatipu will be presented in the context of those hearings, and will need to be readdressed when subsequent land is notified through this review process.

#### 4. THE MODEL PURPOSE, SCOPE AND GUIDING ASSUMPTIONS

- 4.1 As identified above the purpose of this facet<sup>2</sup> of the DCM update (to date) is to assess whether the zoning under the PDP enables the market to deliver the quantum of commercially feasible housing product necessary to meet identified future demand.
- 4.2 The model has been updated across the District, using the Stage 1 notified chapters, and for land that has not been notified in Stage 1, the operative provisions applying to that land have been incorporated into the model.
- 4.3 The model itself has then been applied to the following Upper Clutha (Wanaka Ward) zones:

**PDP:**

- (a) High Density Residential;
- (b) Medium Density Residential;
- (c) Low Density Residential;
- (d) Large Lot Residential;
- (e) Wanaka Town centre;
- (f) Local Shopping Centre;
- (g) Business Mixed Use;
- (h) Rural Lifestyle;
- (i) Rural Residential;
- (j) Rural.

**ODP:**

- (k) Township (Luggate, Albert Town, and Lake Hawea and Makarora);
- (l) Three Parks (including Three Parks North) Special;
- (m) Penrith Park Special;
- (n) Northlake Special;
- (o) Cardrona Rural Visitor; and

2 The base for this assessment includes the data utilised to assess the enabled capacity provided by QLDC

(p) Mt Cardrona Station Special.

**4.4** Three areas have been excluded from both the updated plan enabled capacity and the model. These are the operative Rural Visitor Zone at Windermere, the PDP Rural Residential Zone at Rekos Point and the PDP Rural Lifestyle Zone at Makarora. I understand that these have been excluded for resource management reasons not related to my area of expertise, and are explained by Mr Barr's evidence.

**4.5** The model is based on a number of high level assumptions including:

- (a) the model is based on the notified PDP, and where land has not been notified in Stage 1 of the plan review, it has been based on the operative zone for that land (consistent with paragraphs 4.3 and 4.4 above);
- (b) the planning regime remains unchanged over the assessed period of time (ie, through to 2048);
- (c) although the model assesses development potential on a site by site basis, it does not assume individual's behaviour but utilises averages to understand the typical outcome within the market. It is important to note that these 'averages' represent a market characterised in the District as one that has displayed lower realisation rates of development, and as has been previously identified has a proportionately higher likelihood of speculative land trading;
- (d) the interaction between demand and supply has been assumed to be constant. Demand has been fixed through the Rationale population projections (as set out in Mr Barr's supplementary evidence in his Appendix A) and has not been altered for the range of possible supply outcomes. It is acknowledged that these factors are interactive and in turn influence market indicators such as price and affordability;
- (e) in addition to this there is interaction between demand and supply in terms of its geo-spatial distribution. The identified distribution of demand is, to a degree, reliant on the provision, through the market, of housing supply at a level to at least meet this demand;

- (f) the model assumes that there is sufficient infrastructure capacity to meet supply needs and so the availability of infrastructure does not influence the feasible outcome (I note Mr Barr addresses infrastructure in his supplementary evidence);
- (g) development feasibility occurs when a specified return is met within the market (in this case 20%). While this is a market driven return, development can still occur as owner occupiers develop not on returns, but based on individual requirements and potential equilibrium with the projected value;
- (h) the nature of rezoning for greater levels of density has the effect of changing land values. This value is generally proportionate with the level of rezoning but is also present in the market, generally to a lesser degree, as a result of the expected changes as well as the actual changes to land value. As such the DCM expects some degree of 'windfall gain' for the property owners that must be considered in terms of the purchase price of development potential;
- (i) at this stage, the model has not considered the changes over time as they relate to the relative value of improvements (built form) to land values. It is expected that over time the value of these improvements will fall, increasing the potential for redevelopment;
- (j) at this stage no assessment has been made with regard to the amalgamation of sites (as per the enabled capacity component of the DCM);
- (k) the development model excludes GST;
- (l) the model filters development options by the highest return in response to an efficient and effective market; and
- (m) the model assumes that the potential development will undertake a 'capacity' development unless it is not feasible. It does not consider the possibility of underdevelopment occurring that may also be feasible but may not reach maximum capacity (this may result as a lower risk option for development). This is especially the case in relation to medium to higher density product, which is likely to result in a lower overall capacity even in the longer term.

## **5. THE DISTRICT'S RESIDENTIAL MARKET AND POPULATION PROJECTIONS**

- 5.1** The District's residential market has seen substantial growth over the past 15 years with new household formation at over 5,000 additional since 2001.
- 5.2** From 2001 to 2016 it is estimated that demand for residential housing and residential visitor housing rose by nearly 7,000 homes. While new building consents have been buoyant it is estimated that for the 13 year period to 2013 there was a shortfall of approximately 800 homes built in the District.
- 5.3** As with the national market the District's housing price and sales rate have steadily increased throughout the period with a slight correct following the 2008 Global Financial Crisis. Within 5 years the average house price in the District had achieved pre-2008 prices and has continued to rise at an increasing rate to an average of over \$1,000,000 currently.
- 5.4** A key statistic in the District's property market is the high level of site sales. Although this would be expected in a District with high growth the sales levels are materially higher. This would suggest a highly speculative vacant site market that is directing zoned residential land into a tradable commodity. This in itself impacts upon the tools available to the Council in addressing affordability in the District.
- 5.5** There is a dearth of properties in the lower price quartile entering the market, and the overall affordability for the District's housing stock is one of the lowest in the country. With only 35% of the resident population owning their own home (and only 8% of the population under 40), finance on an average home is expected to consume over 50% of household income annually (and this figure is rising).
- 5.6** These factors have led to a market that is increasingly unaffordable and currently struggles to meet the housing needs of its growing resident population as well as the growing visitor demand.

- 5.7** The PDP notified by Council in Stage 1 seeks to address these housing issues through increasing the enabled residential development capacity both in terms of overall quantum and in terms of typology / choice.
- 5.8** While the District's current housing market has exhibited strong levels of growth that have resulted in potential shortfalls, rising house prices and falling affordability, the expected rates of growth in the District are not expected to diminish.
- 5.9** **Table 1** below summarises the District's and Upper Clutha<sup>3</sup> demand projections for the next 32 years, with continued growth expected throughout this period. This shows District growth of over 33,000 people over the next 32 years, requiring an additional 14,500 houses. The Upper Clutha growth is expected to see an additional 12,000 residents over the next 32 years accommodated within 5,000 new homes. New dwelling consents in the District would suggest current building provision per annum would meet these needs with between 800 and 1,000 new homes per annum.<sup>4</sup>
- 5.10** Included in these projections is the relatively higher number of unoccupied dwellings that make up both the existing and projected demand for dwellings in the District and Upper Clutha. While these units do not make up part of the usually resident population they do present a clear demand within the market for holiday homes.
- 5.11** Across the District these empty homes are expected to continue to increase (as a nominal value) with the advent of more efficient holiday facilities (i.e. AirBnB) maintaining a greater degree of financial sustainability for these properties.

<sup>3</sup> Illustrated as the 'Wanaka Ward'

<sup>4</sup> Statistics NZ new dwelling consents Feb 2016 to Feb 2017.

**Table 1: Estimated Population and Dwelling Demand (2048 – Rationale)**

Wakatipu Ward	2015	2018	2028	2048	2053	2058	Growth# 2015 - 2028	Growth% 2015 - 2028	Growth# 2015 - 2048	Growth% 2015 - 2048
Usually Resident Population	22,070	25,557	32,627	43,846	46,610	49,374	10,557	48%	21,776	99%
Occupied Dwellings	8,529	9,825	12,575	17,250	18,465	19,708	4,046	47%	8,720	102%
Unoccupied Dwellings	2,102	2,303	2,679	3,011	3,061	3,105	577	27%	910	43%
<b>Total Dwellings</b>	<b>10,631</b>	<b>12,128</b>	<b>15,254</b>	<b>20,261</b>	<b>21,526</b>	<b>22,813</b>	<b>4,623</b>	<b>43%</b>	<b>9,630</b>	<b>91%</b>

  

Wanaka Ward	2015	2018	2028	2048	2053	2058	Growth# 2015 - 2028	Growth% 2015 - 2028	Growth# 2015 - 2048	Growth% 2015 - 2048
Usually Resident Population	10,340	12,491	16,650	22,509	23,933	25,357	6,310	61%	12,169	118%
Occupied Dwellings	4,279	5,181	6,949	9,517	10,154	10,796	2,669	62%	5,237	122%
Unoccupied Dwellings	2,133	2,409	2,471	1,817	1,620	1,421	339	16%	-315	-15%
<b>Total Dwellings</b>	<b>6,412</b>	<b>7,590</b>	<b>9,420</b>	<b>11,334</b>	<b>11,774</b>	<b>12,217</b>	<b>3,008</b>	<b>47%</b>	<b>4,922</b>	<b>77%</b>

  

Queenstown Lakes District	2015	2018	2028	2048	2053	2058	Growth# 2015 - 2028	Growth% 2015 - 2028	Growth# 2015 - 2048	Growth% 2015 - 2048
Usually Resident Population	32,410	38,048	49,277	66,355	70,543	74,731	16,867	52%	33,945	105%
Occupied Dwellings	12,809	15,006	19,524	26,767	28,619	30,504	6,715	52%	13,958	109%
Unoccupied Dwellings	4,234	4,712	5,150	4,828	4,681	4,526	916	22%	594	14%
<b>Total Dwellings</b>	<b>17,043</b>	<b>19,718</b>	<b>24,674</b>	<b>31,595</b>	<b>33,300</b>	<b>35,030</b>	<b>7,631</b>	<b>45%</b>	<b>14,552</b>	<b>85%</b>

Source: Rationale February 2017

**5.12** As outlined in the preceding paragraphs consent and growth trends would suggest a latent demand for between 600 and 1,200 new dwellings currently in the District market

**5.13** Given this level of expected growth the District would require development to continue at least at the rate of 600 homes per annum<sup>5</sup> for this period. This level of realised capacity would necessitate much higher enabled and feasible capacity to meet this level of development. I explain what I mean by the 'enabled' and 'feasible' capacity in the section below.

<sup>5</sup> Based on Statistics New Zealand building consent numbers.

## **6. SUMMARY OF 'FEASIBILITY' FACTORS CONTRIBUTING TO THE UPDATED MODEL**

- 6.1** Initial work undertaken by Council (as set out in Mr Barr's supplementary evidence at Section 4), assessed the residential dwelling capacity 'enabled' by the ODP. This illustrated the opportunity available, under the provisions of the ODP, to the market. As described in this evidence, this has been progressed significantly, and now applied to the PDP. Further, not all plan-enabled capacity is economically feasible to develop due to market conditions and other influencing factors. In developing the PDP to meet the community's housing needs it is important to consider the 'feasible' capacity that results from these provisions and market conditions.
- 6.2** The feasibility model attempts to replicate, at a desk top level, the decision-making process of a developer assuming the costs and prices associated with the 2016/17 year.
- 6.3** As a tool the model assesses the potential market responses to potential changes in zoning, rules, or other such provisions. A key assumption of the model as outlined above is that the development of residential dwellings is profit driven. While this is not the only motivation it provides an appropriate filter to consider the likely market response.
- 6.4** While the model itself includes some complexities, its premise is simple. If the cost of the enabled capacity is recovered through the sales value and a predetermined return is achieved then the development capacity is deemed feasible. While there are a variety of variables the model exhibits material sensitivities to only a few. These are outlined below and primarily include the impact of the expected return as well as the proportion of zoning 'uplift' in land value pre-empted by the market in the initial purchase price.
- 6.5** The key factors included in the model include:
- (a) sales value and individual site value;
  - (b) existing sale value;

- (c) build cost (per sqm) and dwelling size;
- (d) development costs;
- (e) development fees/levies;
- (f) holding/finance costs;
- (g) design/servicing/contingency;
- (h) profit margin;
- (i) slope;
- (j) trended site inefficiencies; and
- (k) new dwelling premium.

**6.6** While the model calculates the development feasibility at a site-by-site basis, it applies averages based on the wider District and specific identified areas to tens of thousands of properties throughout the District. The model draws on the opportunities identified within the enabled capacity and links site size, land values, zoning, and location to the potential development based on the size and quality of properties in the specific locations.

**6.7** In terms of sales value several factors have been considered, which include:

- (a) The existing average sales value for the area by product typology. If the area or zoning represents a new market in the area, then the model averages the sales from the areas in immediate proximity. The valuation for each site has been updated utilising the most up-to-date sales figures for each area. This has then been broken down in 'improvements' (built form) and land values utilising the value of consents to estimate the increased relative value of building replacement.
- (b) Additionally, the division of sites into smaller land units typically increases the land value per sqm but (marginally in the case of the Queenstown District) decreases the nominal value. Regression analysis has illustrated that dwellings built in the 2010 – 2016<sup>6</sup> period attract on average a 15% premium.

6 Range is based on REINZ scale utilised by Property IQ.

**6.8** Based on these factors the value of enabled capacity by site can be assessed. Then:

- (a) The existing sales value has been estimated through the updating of the 2014 valuations to 2017. This remaining value is also reassessed based on the remaining land area and improvement value. The value of the existing dwelling is considered lost if it is below a given value level.
- (b) Based on the zoning attributable to each site, detailed dwelling typologies are allocated, which is based on zoning and location. Each typology and location is assigned differing floor areas and costs based on the existing product (or in the case of new areas the model identifies averages from areas in close proximity). This allows for higher value areas to develop larger dwellings with higher quality finishes and reconciles with the higher average sale prices. These costs are made up by area specific costs such as construction, civil and landscaping costs
- (c) Some costs applied were not area specific (although some were influenced by land value), including development contributions, holding costs (finance costs were assigned based on the typology and length of time for builds and sales, marketing and design etc).
- (d) Additionally, further consideration is applied to the model, at an area level, with reference to the proportion of development capacity reduced by both slope and site inefficiencies. While planning provisions allow for minimum site sizes with reference to dwellings, the practicalities of development mean that the resulting 'average' site size is unlikely to meet this minimum level but (as Queenstown District trended data would suggest) will be materially higher. To a degree this considers some of the 'underdevelopment' resulting for developments that are 'sub-optimal' in terms of their development capacity.
- (e) Finally, the level of return is considered. Typically, banks will lend 60-65% of a project's value or 80% of costs (the lower of the two). Therefore at least 20% of costs are met by the developer. The level of return required to catalyse

development is dependent on the level of risk, which is a function of variability within the market and other investment opportunities. The District's market has remained buoyant over the past 5 years and is seeing considerable levels of investment. Given this the model has been run on a benchmark of 20% return.

- 6.9** The feasible development capacity is the result of assessing the enabled capacity under the conditions and variables outlined above. The result of this assessment is to provide the number of potentially feasible dwellings (by zoning typology) under the current provisions and market inputs.
- 6.10** It is important to note that 'feasible' does not translate to 'realised' due to the fact that when averages are considered there are a variety of differing motivations that will change this in terms of what the market actually produces. A relevant issue, with regard to this, for the District is the significant gains realised in the market through simply holding land and selling at a later date without any further development. This is likely to have a greater short term impact on the market in Queenstown as development opportunities take some time to be realised. This fact is crucial in considering whether the feasible capacity actually meets the needs of the community and is likely to result in an efficient and effective market.
- 6.11** This point is often considered as 'development chance' in understanding the potential market response to feasible development. The issue was raised by both proponents and opponents of the feasibility model produced for Auckland Council in relation to the proposed Auckland Unitary Plan.<sup>7</sup> In relation to the Queenstown District market consideration of this fact would effectively half the total number of feasible opportunities within a given market. For this reason, the resulting 'feasible' development potential for the District is considered at 50% of the final model outputs at this stage.

<sup>7</sup> This is highlighted in the Auckland Council evidence for Topic 013 of Mr Doug Fairgray and the 081 evidence presented for MBIE

## 7. SUMMARY OF UPDATED DEVELOPMENT CAPACITY MODEL OUTPUTS FOR UPPER CLUTHA

- 7.1 It is vital to ensure the District has a competitive well-functioning housing market and a competitive urban land market over the longer-term to provide the market with sufficient feasible development opportunities. Further to this a market that has confidence in the sufficiency of future capacity and supply is less likely to result in speculative activity, and will encourage development to occur sooner rather than waiting for values to continue to appreciate.
- 7.2 The following tables summarise the enabled and realised (feasible less estimated proportion of unimplemented development) capacity for residential development within the District and Upper Clutha areas. The enabled capacity results from the Council's assessment of zonings for given areas and the site sizes as well as existing structures.
- 7.3 **Table 2** below shows the total number of enabled residential units under the PDP within the District as 43,100. The DCM has excluded operative Rural Visitor Zones and operative and proposed Special Purpose Zones from its assessment for the primary reason that they have been identified as development zones that have capacity estimates associated with them. For example, within the Upper Clutha these are Penrith Park, Northlake, Three Parks, Mt Cardrona Station and the Cardrona Rural Visitor Zone. Collectively I refer to these as 'Special Purpose'.
- 7.4 Of the 43,100 enabled capacity within the District, 14,200 are located within the Upper Clutha catchment. This includes a relatively low number (relative to the proportion within the District) of Special Purpose capacity at 2,100 units. Excluding these the Upper Clutha is likely to have a realised capacity of 3,300 additional residential dwelling units.
- 7.5 I would like to emphasise that we have focused on updating and refining the DCM as it relates to residential dwelling capacity in the PDP for the Upper Clutha area. The DCM has been completed for

the Queenstown and Wakatipu Basin however the equivalent level of refinement has not been completed at this point in time. Evidence on dwelling capacity in the Wakatipu Basin and Queenstown area will be provided in the context of these respective hearings.

**7.6** **Table 1** above indicated the estimated growth in residential units in Upper Clutha at 5,000 by 2048. Given the above assessment identifying the number of enabled units in this catchment, and the number of units likely to be realised under current conditions, I consider that the provisions of the PDP will provide sufficient capacity for growth in residential units.

**7.7** When considering a buffer such as that identified by the National Policy Statement for Urban Development Capacity, even with the provision of an additional 20% included in demand, the current capacity would be sufficient to 2043.

**Table 2: DCM ENABLED AND REALISED CAPACITY OUTPUTS**

<b>Enabled Capacity</b>	<b>DCM</b>	<b>Special Zones</b>	<b>Total</b>
Queenstown Wakatipu Ward	14,557	14,369	28,926
Wanaka Ward	12,107	2,098	14,205
<b>Total</b>	<b>26,664</b>	<b>16,467</b>	<b>43,131</b>

  

<b>Realisable Capacity</b>	<b>DCM</b>	<b>Special Zones</b>	<b>Total</b>
Queenstown Wakatipu Ward	4,013	14,369	18,382
Wanaka Ward	3,318	2,098	5,416
<b>Total</b>	<b>7,331</b>	<b>16,467</b>	<b>23,798</b>

**7.8** It is also important to understand the typology that is likely to result from both the planning provisions under the PDP and the associated market drivers. **Table 3** below outlines the likely composition of high to low density residential development. From the table, it is clear that low density standalone residential product makes up the primary proportion of the enabled and realisable capacity. This is exacerbated with lower proportions of high density product becoming feasible and realised. A driving factor associated with this is the risk accompanying the development and marketing of this product in a

market that currently exhibits, proportionately, low levels of demand for this typology.

- 7.9** This proportional split between dwelling types (as a result of density) is likely to show significant shifts over time. As indicated below there are likely to be dynamic factors (such as decreases in improvement value) that will increase the likelihood of feasibility. While at this point in time higher density product exhibits lower feasibility rates these are likely to see greater proportional levels of feasibility over time, as not only supply constraints are lifted but preferences in the market change (proportionately) also.

**Table 3: UPPER CLUTHA PDP ENABLED AND FEASIBLE UNITS BY DENSITY**

Zone Type	Upper Clutha		
	Enabled	Feasible	Realised
Low Density Residential	10,719	6,103	3,052
Medium Density Zone	1,090	381	225
High Density Residential	427	281	107

- 7.10** As highlighted above there are a number of contributing factors that may result in changes to these estimates. These include the impacts of underutilisation where sub-optimal development is undertaken (while still feasible), any infrastructure constraints and the impact of increased 'wind fall' gains. While part of the latter issue has been included in the model decisions by participants in the market are not necessarily made based on the current environment. Expectation of greater levels of rezoning or increased prices can lead to inefficiencies in the market where feasible locations and sites are 'banked' in anticipation of greater future returns.

- 7.11** Alternatively, there are some factors that may increase the level of development occurring including; the amalgamation of sites, economies of scale reducing 'average' costs, and the dynamic nature of the housing market. As outlined above the factors that influence

the model are those that currently exist in the market. However, over time such factors as land value to improvement value change. This gradual increase in the land component of an ageing property will mean that the properties become more attractive for re-development over time.

**7.12** A further consideration with regard to the model is the sensitivity of the outputs to changes to the inputs. In assessing the level of feasible residential units each component was tested to see if a change in its value resulted in a greater than proportional change in the level of feasible units. One key factor in this was that of profit. As the percentage of profit required to meet a feasible threshold dropped the level of feasible units rose for profit between 20% and 10% with gains in additional units of 15%. Below this point the fall in required return had little impact on the level of feasibility as most additional units were not profitable.

**7.13** In assessing the sufficiency of the feasible and realised capacity there is economic justification for considering a longer period of time than that covered by the PDP reviews. A period of 10 years would suggest that a capacity of only 2,500 units would meet the estimated demand however it is considered that a well-functioning housing market requires a large number of potential development opportunities to be available, so that developers and prospective homeowners have a wide variety of choices, and the downward competitive pressure is applied to land prices across the district. If the market has confidence in the sufficiency of future development capacity and supply over the long term, then this will help reduce speculation-driven price increases, as well as encouraging landowners to develop their land sooner rather than hold out for higher prices later (i.e. land-bank).

**7.14** The 5,400 dwellings, identified in **Table 2**, in my opinion is sufficient to accommodate projected growth over a period longer than the 30-year demand projection. Notwithstanding the additional opportunities that may arise over time, this would require only half of the currently-feasible development opportunity to be taken up within 30 years to the maximum feasible capacity of each site.



**Philp Osborne**  
**1 May 2017**