

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

UNDER the Resource Management
Act 1991 ("**the Act**")

AND

IN THE MATTER of Hearing Stream 12 –
Upper Clutha Mapping

**SUPPLEMENTARY STATEMENT OF EVIDENCE OF NATALIE DIANNE
HAMPSON – DWELLING CAPACITY**

ON BEHALF OF MIKE BERESFORD

DATED 12th MAY 2017

STATEMENT OF EVIDENCE OF NATALIE HAMPSON

1. INTRODUCTION

Qualifications and experience

- 1.1 My full name is Natalie Dianne Hampson. I am an associate director at Market Economics Limited ("**M.E**").
2. My qualifications and experience are set out in my evidence in chief ("**EIC**") dated the 4th April 2017.
 - 2.1 This supplementary statement of evidence responds to the evidence of Mr Craig Barr¹ and Mr Philip Osborne² on behalf of Queenstown Lakes District Council ("**the Council**") pertaining to the recently updated dwelling capacity model ("**DCM**") 2017 for the Upper Clutha component of the District (also referred to in my EIC as the Wanaka Catchment). It also addresses the new dwelling growth projections released by Council.
 - 2.2 Where relevant for comparing the Council's analysis of capacity numbers with my own, this statement relies on the amended DCM 2017 figures supplied upon request and received by email on Wednesday 10th May. A copy of the original table supplied is included in **Appendix A**. These amended figures of capacity differ from those relied on in Mr Barr's and Mr Osborne's evidence (i.e. contain corrections) and provide a breakdown of enabled and feasible capacity by zone and location in the Upper Clutha area.
 - 2.3 In the absence of updated statements of evidence from Mr Barr and Mr Osborne (at the time of preparing this supplementary statement) I have tried to reconcile their earlier conclusions with the latest figures (keeping their approach consistent).

Expert Witness Code of Conduct

- 2.4 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.

¹ Dated 2nd May 2017.

² Dated 1st may 2017.

Scope of Evidence

- 2.5 Section 3 responds to the new Council dwelling projections produced by Rationale Ltd.
- 2.6 Section 4 discusses the latest DCM 2017. I compare it with the DCM 2015 and my estimates of capacity (2016) that underpin my EIC. I also include some discussion on the three types of capacity included in the latest DCM.
- 2.7 Section 5 contrasts the latest dwelling capacity (2017) against demand projections for the total Wanaka Catchment in order to provide a comparable analysis to that contained in Mr Osborne's evidence (and relied upon by Mr Barr).
- 2.8 Section 6 contrasts the latest dwelling capacity (2017) against demand projections for the Wanaka Urban Growth Boundary ("**UGB**") area in order to provide a comparable (and updated) analysis to that contained in my EIC.
- 2.9 Section 7 provides my conclusions in terms of the adequacy of residential capacity based on the updated DCM.

Key findings

- 2.10 The Council's latest dwelling projections for the Wanaka Catchment show unusual trends in the number of unoccupied dwellings over time. I consider these trends to be unlikely and no justification has been provided. Due to this anomaly, I consider the Council's total dwelling projections for the Wanaka Catchment to be unreliable and underestimate long-term dwelling demand.
- 2.11 The latest DCM is based on a different and generally more robust methodology than the previous DCM. While there are some limitations on what can be directly compared, the latest figures show that:
- (a) Some capacity has been reduced due to growth over the last two years;
 - (b) Additional capacity has been enabled through private plan changes and the proposed District Plan;
 - (c) Overall, net feasible capacity (being the most comparable variable) in the Wanaka Catchment and inside the Wanaka UGB has increased.
- 2.12 I consider that the approach used to calculate total realised capacity is inappropriate in that it excludes an undeveloped/land-banked share of

feasible capacity from zones included in Stage 1 of the District Plan Review but not from non-Stage 1 zones. The rationale for realisable capacity should apply to both groups of zones and as such, total realised capacity in the DCM is overstated by approximately 1,700 dwellings.

- 2.13 Comparing my total dwelling growth against this updated capacity shows that across the total Wanaka Catchment, long-term demand well exceeds an adjusted calculation of realised capacity, but sits below feasible capacity (including an allowance for a 15% buffer shown).
- 2.14 The total catchment approach used by Mr Osborne and Mr Barr does not take account of the location of demand and the location of capacity across the Catchment and how these two may or may not align. It does not acknowledge the potential impact of latent demand for dwellings. This means that demand growth could be higher than simply the increase measured from a 2016 base. It does not consider the demand and capacity for attached versus standalone dwellings. Last, the modelling assumption that land will be developed at maximum yield may mean that capacity attributed to the Medium Density Residential Zone in Scurr Heights, for example, overestimates feasible and realised capacity.
- 2.15 In term of the UGB area capacity estimate I relied upon for my EIC analysis (6,660, 2016), the updated DCM (and its associated change in methodology) shows that this was 1,255 dwellings less than the current estimate of feasible capacity (7,915, 2017). For attached dwellings, I had relied on a feasible capacity estimate of 863 for the UGB area. Based on my recent analysis, attached feasible dwelling capacity in the updated DCM is approximately 1,299 – 436 more than my 2016 estimate. For standalone dwellings, I had relied on a feasible capacity estimate of 5,797. Based on my recent analysis, standalone feasible dwelling capacity in the updated DCM is approximately 6,616 for the UGB area – 819 more than my 2016 estimate. I have updated my modelling according to the latest capacity figures.
- 2.16 As a result of my update, I conclude that while the UGB area appears to have adequate feasible capacity relative to long-term growth, this will not all be realised. Current realised capacity has been added to the latest DCM and is therefore a relevant benchmark to consider. If current market behaviour persists, the proposed residential zoning in Sticky Forest, although only small in the context of UGB capacity, would contribute to reducing a potentially significant long-term shortfall of realisable capacity for standalone dwellings.

3. **RATIONALE PROJECTIONS FOR THE WANAKA CATCHMENT**

- 3.1 In my EIC, I made reference to growth projections for the District produced by Insight Economics Ltd³. These were the growth projections referred to by Council in various Stage I hearing topics, including by Mr Paetz in relation to the Strategic Directions and Urban Development chapters.
- 3.2 In the absence of readily available data containing the Insight Economics Ltd projections, including at a sub-catchment resolution, I relied upon StatisticsNZ High Household projections (2016) for my analysis of resident dwelling growth (demand) in sub-catchments across the Wanaka Catchment. The use of StatisticsNZ high growth projections is recommended for high growth districts in the NPS UDC in the absence of bespoke district projections.
- 3.3 Mr Barr's supplementary evidence identifies new Council projections commissioned in August 2016 with Rationale Ltd. Mr Osborne dates these as February 2017 and relies upon them for his comparison of dwelling capacity and dwelling demand in the Wanaka Catchment. These latest Rationale projections appear to supersede the Insight Economics projections⁴.
- 3.4 It is therefore relevant to compare the Rationale projections of dwelling demand growth with the dwelling projections I have relied upon in my EIC for the Wanaka Catchment. For this task, I am limited by the level of detail provided in Appendix 1 of Mr Barr's supplementary evidence (e.g. CAU level projections for total dwellings) and Table 1 of Mr Osborne's evidence which provides less detail by year, but a breakdown of occupied (resident) dwellings and unoccupied (generally holiday home) dwellings for the total Catchment⁵.

General Observations of Rationale Projections

- 3.5 In terms of population growth, the Rationale projections sit between the latest StatisticsNZ Medium and High growth projections for the total District (released in December 2016).
- 3.6 Both the Wanaka and Wakatipu Catchment are projected to have continued strong growth in population over the long-term.

³ These were explained further in evidence by Mr Fraser Colegrave (director of Insight Economics).

⁴ No text by Rationale explaining the projections has been included with the tables.

⁵ At the time of preparing this statement, I had not managed to find a copy of (detailed) Rationale 2017 projections on the Council's website and am not aware of them being provided in the bundle of referred to documents.

- (a) Percentage growth in the Wanaka Catchment has been higher than the Wakatipu catchment in the recent past (2001-2015) and will continue to be higher in the long-term future (2015-2048).
- (b) The Wanaka Catchment accounts for a 32% share of total District population currently (2015) and due to a faster growth rate, will account for a 34% share in 2048.
- (c) Between 2015 and 2048, the Wanaka Catchment population is projected to increase by 12,170 (118% growth or more than double the 2015 population)

3.7 Both the Wanaka and Wakatipu Catchment are projected to have continued growth in visitors over the long-term.

- (a) Although the recent percentage growth in average daily visitors in the Wanaka Catchment has been higher than in Wakatipu (2001-2015), in the long-term this is projected to change with the Wakatipu Catchment projected to have higher percentage growth.
- (b) The Wanaka Catchment accounts for a 32% share of total District average daily visitors currently (2015) and due to a slower future growth rate, will account for a 30% share in 2048.
- (c) Between 2015 and 2048, the Wanaka Catchment average daily visitor count is projected to increase by 5,290 to reach 11,810 per average day (81% growth).

3.8 Population growth is the key driver of resident (occupied) dwelling demand and visitor growth is the key driver of unoccupied (holiday home) dwelling demand. It follows therefore, that positive growth of both drivers will result in positive growth of occupied and unoccupied dwellings, notwithstanding:

- (a) a slow reduction in household size due to an ageing of the population. This means that household growth rates are slower than population growth rates;
- (b) potential shifts in market preferences between private sector accommodation and commercial accommodation;
- (c) potential shifts in the relative capacity of private sector accommodation and commercial accommodation.

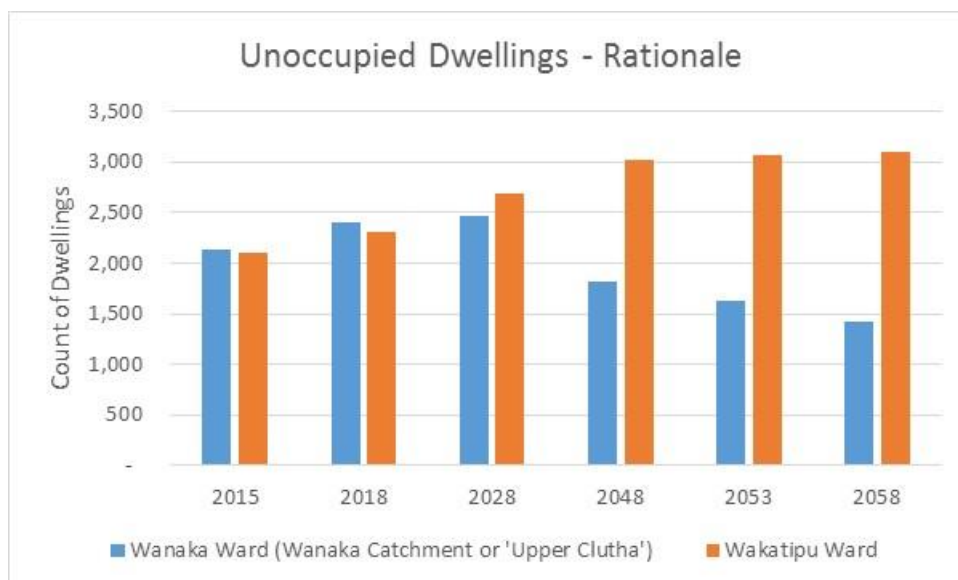
- (d) All of which can affect demand for additional occupied and unoccupied dwellings arising from population and tourist growth.

3.9 With regard to these caveats:

- (a) Mr Osborne states in his recent evidence that “*across the District ... 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*” (paragraph 5.11, emphasis added).
- (b) Mr Paetz and Mr Colegrave have also stated in Stage 1 evidence the growing market share of private home visitor accommodation.
- (c) Mr Osborne’s evidence on residential topics⁶ stated that demand for private residences to be used for visitor accommodation would increase by 1,700 (medium) and 2,500 (high) by 2045 for the total District (based on projections available at that time). This is an average long-term ratio of 1 new unoccupied dwelling for every 5-5.4 new occupied dwellings across the District⁷.

3.10 Taking this into consideration, it is surprising that the Rationale projections for unoccupied dwellings show a decline (in nominal terms) over time in the Wanaka Catchment. While in the Wakatipu Catchment, there is positive growth (as would be expected) (Graph 1).

Graph 1 –Rationale Unoccupied Dwellings Projections by District Catchment 2015-2058 – sourced from Mr Osborne’s evidence Table 1.



⁶ Dated 14th September 2016.

⁷ Paragraphs 3.13 and 3.14.

- 3.12 There is no explanation from Mr Osborne on this decline after 2028 and why this should apply in Wanaka but not in Wakatipu. Rationale dwelling projections show slightly higher District growth of residential dwellings over a similar time period than even the high scenario previously discussed by Mr Osborne in his Residential evidence (paragraph 3.14)⁸. Yet, an average long-term ratio of just 1 new unoccupied dwelling for every 23.5 new occupied dwellings across the District (growth of just 593 between 2015 and 2048). This is a significant change in ratio and quantum of growth that has gone unquestioned by Mr Osborne in adopting the latest Council projections.
- 3.13 In my view, this trend is not justified in light of growing visitor numbers. The projections mean that after 2028, no new holiday homes will be created/purchased and a large number of existing owners will give up their holiday homes so that there are less holiday homes in the future than there are at present. This unlikely outcome leads me to believe that Rationale's projections of unoccupied dwellings are unreliable for the Upper Clutha area.
- 3.14 I acknowledge that the Rationale projections adopt a position of a declining share of overall dwellings being unoccupied.⁹ But, while the Wakatipu Catchment share decreases by 5 percentage points (20% in 2015 to 15% in 2048), the shift in share in the Wanaka Catchment seems abnormal (a decline of 17 percentage points from 33% in 2015 to just 16% in 2048).
- 3.15 As this component of growth (in addition to occupied dwelling growth¹⁰) contributes to total dwelling growth, I believe that Rationale's projections of total dwellings for the Upper Clutha area are also unreliable¹¹.

Comparison of Rationale dwelling projections with dwelling projections relied on in my EIC

- 3.16 In my EIC I have relied on StatisticsNZ household projections (high) to show demand for occupied dwellings in the Wanaka Catchment. When compared with Rationale's (Council's) projections, we have a similar start point and a very similar long-term end point. My growth is more linear. The implication is that I show slightly lower demand for occupied dwellings in the medium-term (i.e. 2026) compared with Rationale (Graph 2).

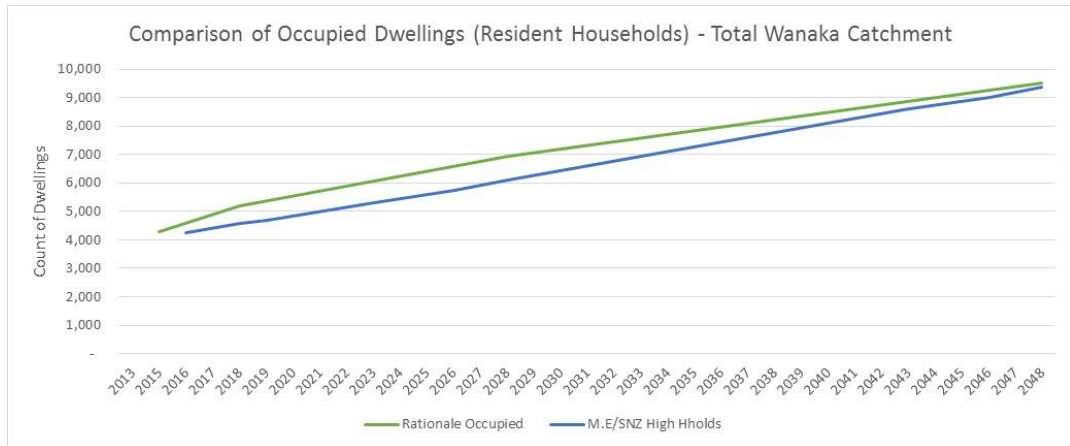
⁸ Rationale: 13,959 additional occupied dwellings (2015-2048) compared to 13,500 additional residential dwellings (2013 (presumed) - 2045).

⁹ The share has increased from 20% to 24% between 2001 and 2013 (Mr Osborne's Residential Evidence, paragraph 3.4). This implies that Rationale consider the share to have peaked as they project a declining share from 2015.

¹⁰ At face value, I have no concerns with the occupied dwelling projections for both catchments.

¹¹ Stated total district dwelling projections are also affected.

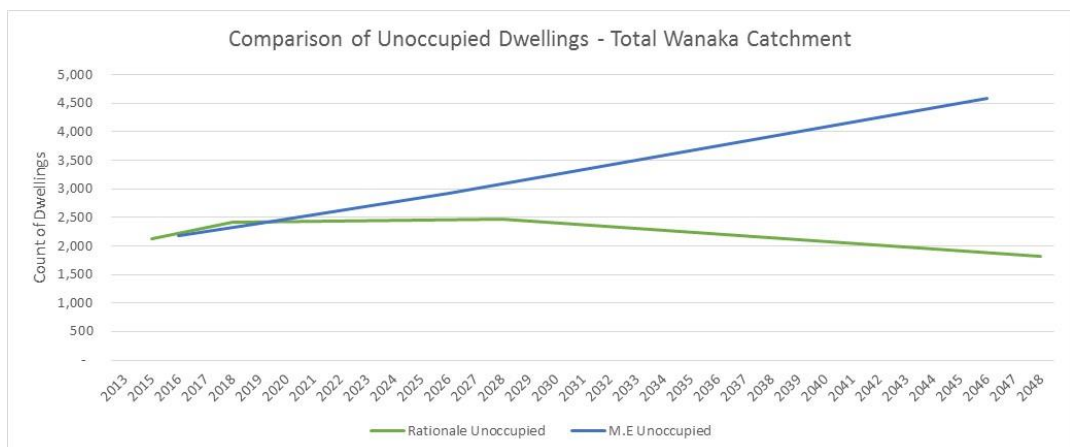
Graph 2 – Comparison of Statistics NZ Household Projections and Rationale Occupied Dwelling Projections for the Wanaka Catchment.



3.17 Rationale and I also have a very similar current share of total dwellings being unoccupied in the Wanaka Catchment. I estimate a 34% share in 2016 compared to a 33% share in 2015 used by Rationale. Our current estimates of unoccupied dwellings (nominally) are also very similar.

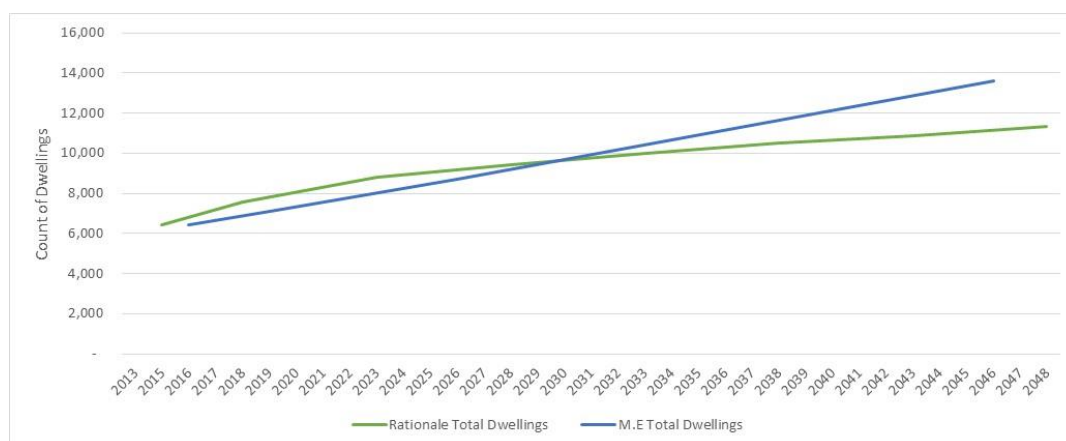
3.18 My approach to projecting unoccupied dwellings was described in paragraphs 3.36-3.37 of my EIC. Broadly, I held the current share (relative to occupied dwellings) constant over time, on the assumption that pressure to convert holiday homes to resident homes would be offset by the growing popularity of holiday home rental, including AirBnB style accommodation. Graph 3 shows the effect of this pro-rata growth assumption compared to Rationale’s long-term decline of unoccupied dwellings.

Graph 3 – Comparison of Unoccupied Dwelling Projections for the Wanaka Catchment.



3.19 The combined effect for total dwelling growth is compared in Graph 4.

Graph 4 – Comparison of Total Dwelling Projections for the Wanaka Catchment.



- 3.20 In light of the above analysis, I maintain that my projections of dwelling demand are appropriate for the purpose of determining the adequacy of residential dwelling capacity in the Wanaka Catchment. I am not persuaded to update my analysis based on Council’s latest projections. I question the reliability of the Rationale dwelling projections for the Wanaka Catchment, upon which Mr Osborne and Mr Barr have based their conclusions. In my view, they underestimate the scale of future dwelling demand in the long-term.
- 3.21 Mr Barr (paragraph 7.2) and Mr Osborne (Table 1) refer to long-term growth in demand of 4,922 dwellings for the Wanaka Catchment (2015-2048). Using a 2015 base includes demand that may already have been translated into dwellings and is a less accurate comparison to capacity determined at the beginning of 2017. Basing Rationale’s growth off the 2016 figure instead¹², long-term growth to 2046 (a 30 year horizon advised by the NPS UDC) equates to 4,373¹³.
- 3.22 In contrast, my EIC growth projections indicate a potential increase of 7,190 dwellings over the same time period (2016-2046) (**Appendix B**). For this supplementary evidence, I have tested a more conservative projection where the share of unoccupied dwellings decreases by an average of 5 percentage points across the Wanaka Catchment (from 34% in 2016 to 29% in 2046) (**Appendix C**). This shows a potential increase of 6,680 dwellings in the long-term. Based on these projections (and a time period of 2016-2046), I consider that the Council has underestimated long-term dwelling growth by

¹² Interpolated at 6,783 - this allows direct comparison with my EIC analysis and is closer to the latest capacity estimate.

¹³ Figures interpolated from years provided.

-2,310-2,820 dwellings (-35-39%) because of Rationale's approach to unoccupied dwellings.

4. **UPDATED DWELLING CAPACITY – UPPER CLUTHA**

Omissions in my EIC Capacity Estimate

- 4.1 My EIC focussed on the estimated capacity of the **Wanaka UGB** based on the DCM 2015 and further evidence by Mr Paetz. It was my understanding that the capacity in that model had factored down enabled capacity to a realistic yield of dwellings. For the purposes of my analysis, I treated this as the estimate of feasible capacity.
- 4.2 My analysis estimated potential for 4,406 additional dwellings in urban zones within the UGB according to the DCM 2015 and including 1,500 dwellings for the Northlake Special Zone. This excluded capacity in any rural categorised zones within the UGB¹⁴. Added to this was, 2,074 additional dwellings created through the proposed DP provisions, giving a 2015 estimate of 6,480 dwellings. This was summarised in Tables 1 and 2 of my EIC. I then estimated that 185 new dwellings had been developed between 2015 and 2016, reducing available capacity in 2016 to 6,295 additional dwellings.
- 4.3 In preparing this evidence, I have identified two omissions from my figures drawn from the DCM 2015. These were Penrith Park and Peninsula Bay Special Zones. Combined, these add capacity for 365 additional greenfield standalone dwellings to my total. That is, for 2016, my total additional capacity should have stated 6,660 dwellings in the Wanaka UGB. I have included revised tables summarising the breakdown of this capacity in **Appendix D**. For completeness, I have included revised demand-capacity modelling results from my EIC in **Appendix E**, but note that these are now superseded by results based on the DCM 2017 in any case (discussed below in Section 6 and included in **Appendix G-I**).

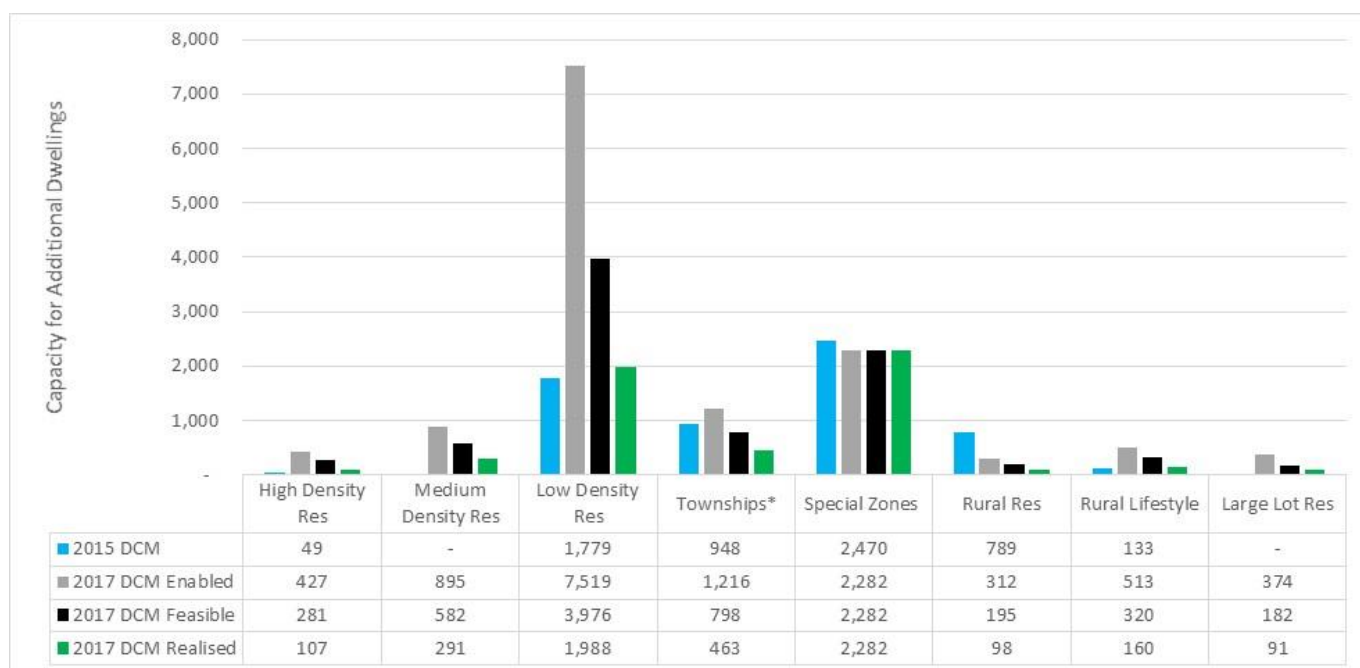
DCM 2015 vs. DCM 2017 – Change in Capacity

- 4.4 The latest DCM (amended version) specifies enabled (based on zone rules), feasible (physically and financially viable) and realisable (feasible capacity less the proportion of likely unimplemented development) capacity by zone in the Wanaka Catchment. Both feasible and realisable capacity are relevant considerations when measuring the adequacy of capacity relative to demand.

¹⁴ Rural Residential (Large Lot under the Proposed DP) or Rural Lifestyle.

4.5 The three levels of capacity specified in the DCM 2017 is a more detailed approach than the DCM 2015 and appears to be a more comprehensive and generally robust methodology, meaning a direct comparison is not straightforward.

Graph 5 – Comparison of DCM 2015 and DCM 2017 – Selected Zones in Wanaka Catchment



4.6 Graph 5 compares Council's DCM 2015 with the amended DCM 2017 for selected zones (or zone groupings) in the Wanaka Catchment. Notable differences include:

- (a) Growth between 2015 and 2017 has consumed some capacity. This is particularly evident in the Townships zone where feasible capacity has reduced.
- (b) Peninsula Bay has changed from a Special Zone to Low Density Residential.
- (c) Northlake Special Zone has been added to the Special Zones.
- (d) Rural Residential Zone in the urban area has changed to Large Lot Residential.
- (e) Introduction of Large Lot and Medium Density Residential.

(f) Upzoning of land (and changed density provisions) to Low Density Residential has significantly increased feasible capacity as have provisions for the High Density Residential zone.

4.7 Across the total Wanaka Catchment, it is possible to directly compare total capacity excluding Rural General, Rural Visitor and the Anderson Road Business Zone. In aggregate, the DCM 2015 specified a residential capacity of 7,721. This contrasts with 2017 feasible capacity of 9,018 and realisable capacity of 5,991. In short, feasible capacity has increased but realisable capacity is lower. Because of the way the DCM 2015 was structured, it is not possible to contrast the total across all zones in the Wanaka Catchment for which the DCM 2017 calculates feasible capacity for 10,034 additional dwellings¹⁵.

Realised Capacity in Special Purpose Zones

4.8 In paragraph 7.3 Mr Osborne states that the DCM update excludes the Rural Visitor Zone and Operative Special Zones and states that they already have "*capacity estimates associated with them*". The amended DCM 2017 shows that the following zones sit outside the DCM analysis:

- (a) Local Shopping Centre Zone
- (b) Rural General
- (c) Rural Visitor (Cardrona)
- (d) Albert Town Riverside Stage 6
- (e) Special Zones: Three Parks, Penrith Park, Northlake and Mt Cardrona Station.

4.9 The Council's approach has been to estimate the three levels of capacity for the zones included in Stage 1 of the DP Review, but make no distinction of capacity in the zones excluded from Stage 1 at this time. In Table 2 of his statement and in the amended DCM, Mr Osborne treats the capacity of non-Stage 1 zone the same whether for enabled, feasible or realisable capacity.

4.10 I consider that the capacity estimates associated with the non-Stage 1 zones reflect feasible capacity – that is, what the developer plans to deliver to the market – and are appropriate to be added in full to the DCM feasible capacity.

¹⁵ See Table 1 for sub-totals by capacity type (based on original figures supplied in Appendix A).

4.11 My understanding of the intent behind 'realisable capacity' as a sub-set of feasible capacity is that it accounts for the portion of sites that will not be developed but land banked or undeveloped, particularly in the short-term, but potentially for longer¹⁶. I consider that the rationale of realisable capacity should apply equally to the non-Stage 1 zones as it does the zones addressed in the DCM update. As such, an average of 50% of capacity¹⁷ in non-Stage 1 zones should, in my view, be excluded to more accurately represent realised capacity in those locations. This a more appropriate approach than simply treating all capacity in non-Stage 1 zones as realisable just because those zones sit outside the scope of the update. I have shown this approach in Table 1 below in the fourth column of values.

Table 1 – Amended DCM 2017 with Realisable Capacity Rationale Applied to Non-Stage 1 Zones – Total Wanaka Catchment.

Zone	Enabled	Feasible	Realised *	Hampson Adjusted Realised	Realised Share of Feasible	Realisable Share Notes
High Density Residential (UGB)	427	281	107	107	38%	Derived from Table 3
Low Density Residential (UGB)	7,519	3,976	1,988	1,988	50%	Derived from Table 3
Large Lot Residential (UGB)	374	182	91	91	50%	implied average
Mixed Business Use (UGB)	895	582	291	291	50%	implied average
Medium Density Residential (UGB)	1,090	381	225	225	59%	Derived from Table 3
Rural Lifestyle (Rest of Catchment)	513	320	160	160	50%	implied average
Rural Residential (Rest of Catchment)	312	195	98	98	50%	implied average
Township (UGB)	90	50	25	25	50%	implied average
Township (Rest of Catchment)	1,088	670	335	335	50%	implied average
DCM Total Catchment	12,308	6,637	3,319	3,319	50%	
DCM UGB	10,395	5,452	2,727	2,727	50%	
DCM Rest of Catchment	1,913	1,185	593	593	50%	
Local Shopping Centre (UGB)	53	53	53	27	50%	implied average
Rural General (Rest of Catchment)	294	294	294	147	50%	implied average
Rural Visitor (Cardrona) (Rest of Catchment)	140	140	140	70	50%	implied average
Special Purpose (UGB)	2,282	2,282	2,282	1,141	50%	implied average
Special Purpose (Rest of Catchment)	500	500	500	250	50%	implied average
Albert Town Riverside Stage 6 (UGB)	128	128	128	64	50%	implied average
Non-Stage 1 Total Catchment	3,397	3,397	3,397	1,699		
Non-Stage 1 UGB	2,463	2,463	2,463	1,232		
Non-Stage 1 Rest of Catchment	934	934	934	467		
Total Catchment Capacity	15,705	10,034	6,716	5,018		
Total UGB Capacity	12,858	7,915	5,190	3,959		
Total Rest of Catchment Capacity	2,847	2,119	1,527	1,060		

* The Amended DCM supplied showed only the total realised capacity for the DCM total. Mr Osborne's evidence (Table 3) provided specific shares for HDR, MDR and LDR zones. These have been adopted here and other zones have been attributed the average of 50%. The sum of the parts is within 1 of the stated totals - meaning that this approach appears to reconcile. It is possible that this more variation in the other zones (around the average) but this information is not available.

N Hampson requested confirmation of whether the Wanaka Town Centre zones should be included. There was no direct response to this query and the table supplied excluded it.

Figures in black are those taken directly from the amended DCM supplied or Mr Osborne's Table 3. Figures in blue have been derived by N Hampson as described in the text.

¹⁶ Refer Mr Osborne's evidence – paragraph 6.10.

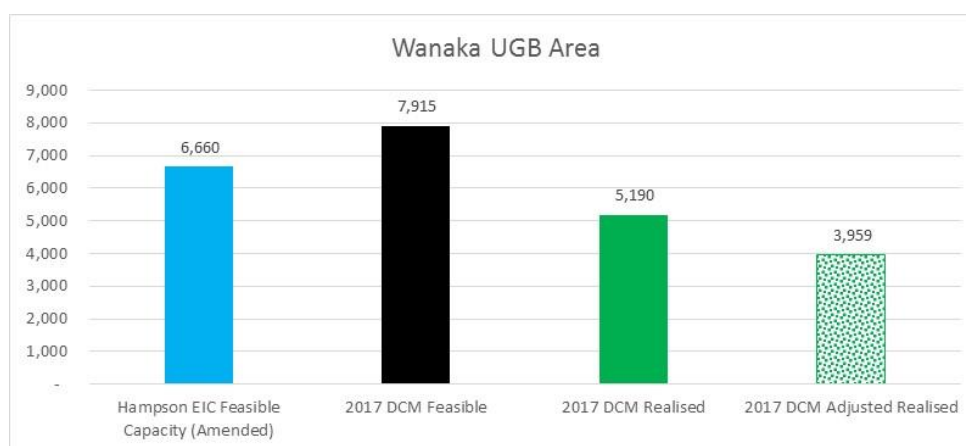
¹⁷ Specific realisable shares for each zone would be better still than applying a single average.

4.12 Accordingly, I think that Mr Osborne has over estimated realised capacity in the Wanaka Catchment. Excluding 50% of capacity in non-Stage 1 zones reduces total realised capacity to 5,018 (-1,698 less than the 6,716 shown in the amended DCM provided (Table 1). I have factored this recommended approach into my Graphs in Sections 5 and 6 below. It is the dashed green line referred to as Adjusted Realised Capacity. I calculate feasible capacity in the Wanaka Catchment from the amended DCM as 10,034 (2017). This is the black line shown in subsequent graphs.

Comparison of my EIC UGB Capacity 2016 with DCM 2017

4.13 In terms of my EIC analysis, I estimated capacity for 2016 for the Wanaka UGB. This equated to 6,660 feasible dwellings¹⁸. In contrast, the DCM 2017 shows 7,915 feasible capacity and 5,190 realised capacity. I estimate that the adjusted realised capacity equates to 3,959 for the UGB area (Table 1 and Graph 6). Under the DCM 2017, feasible capacity in the UGB area is higher than the figure I have relied upon in my EIC by 1,255 (+19%). The adjusted realisable capacity (2017) is however significantly lower than the capacity I based my evidence on.

Graph 6 – Comparison of UGB Area total dwelling capacity estimates with Amended DCM 2017



5. CAPACITY RELATIVE TO DEMAND – TOTAL WANAKA CATCHMENT

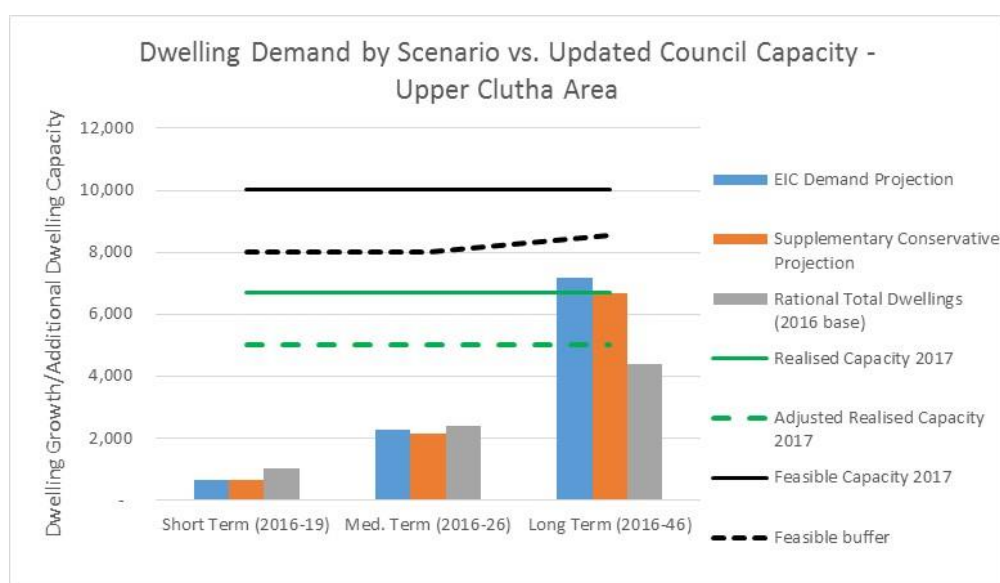
5.1 Mr Osborne's evidence evaluates total Wanaka Catchment dwelling capacity from the DCM 2017 against growth in dwelling demand (Rationale). Mr Barr also relies on this evaluation. This section contrasts *my* estimates of total dwelling demand across the total Wanaka Catchment (considered to be more reliable than Rationale's dwelling projection) with the feasible and realised

¹⁸ Amended figure as per paragraph 4.3 above.

capacity identified in the amended DCM 2017 and my calculations of adjusted realised capacity.

- 5.2 Graph 7 shows 3 year, 10 year and 30 year growth (from 2016) for total dwellings in the Wanaka Catchment. It includes my original demand projection from my EIC, the new conservative projection described above, and the Rationale projection which I consider underestimates long-term growth.

Graph 7 – Comparison of Projected Total Dwelling Growth with Realised and Feasible Capacity 2016-2046 for the Wanaka Catchment.



- 5.3 Graph 7 shows that in the long-term, Rationale’s growth sits below adjusted realised capacity. I think this demand projection is unreliable for the reasons described in this statement. My demand projections show that long-term demand (under both EIC and conservative scenarios) well exceeds adjusted realised capacity, but sits below feasible capacity (including an allowance for a 15% buffer shown).
- 5.4 This means that while there is spare feasible capacity in the long-term, according to the DCM approach the propensity of the market to take up development opportunities would need to change from current behaviours in order to meet demand. To rely on this change in behaviour comes with some risk given that it would need to occur in a market where spare capacity will be at its lowest level in 30 years assuming no further changes in enabled capacity during that time. I refer to Mr Osborne’s paragraph 7.1 which states *“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.”*

That is, the market may be more likely to be speculative as spare feasible capacity diminishes in the long-term. This raises some concern as to whether the market will in fact adjust to cater for demand – constraining growth despite adequate feasible capacity.

Relevant Considerations

- 5.5 The above analysis is high level only (total Wanaka Catchment) as this is the extent of consideration given by Mr Osborne in his evidence. It equates broadly to Scenario 1 analysed in my EIC¹⁹. There are however four factors which should be taken into consideration when interpreting the result graphed above and the conclusions drawn by Mr Osborne and relied upon by Mr Barr.

Geospatial patterns of demand and capacity

- 5.6 Assessing demand and capacity at the total Wanaka Catchment level is a very simple approach and is potentially misleading. It does not account for the location of demand growth and the location of capacity and how these align. For example, if considerable capacity is located in the rural areas or in Cardrona Valley but projected demand is focussed inside the UGB then shortfalls and surpluses cannot be accurately determined.
- 5.7 In considering only the demand-capacity situation at the total Catchment level, Mr Osborne’s evidence implies that shortfalls of capacity in one location can simply be met by surpluses in another location within the Catchment. However, rural and urban living are two very distinct lifestyle preferences and the NPS UDC requires that Council provide capacity where people want to live.
- 5.8 It is for this reason that I specifically requested a copy of the DCM 2017 showing a breakdown of capacity by zone and location, including an ability to sub-total the Wanaka UGB. I have provided an updated analysis of demand and capacity specifically inside the UGB based on the latest DCM in Section 6 below.
- 5.9 Last, by considering only total Wanaka Catchment capacity (as he did in his supplementary evidence), Mr Barr is limited in his ability to examine the scale of additional localised capacity proposed in submissions. Hypothetically, a submission looking to add 50 sections to a small rural

¹⁹ Refer paragraph 4.17a (Hampson EIC).

village would show up as a very small impact on total Catchment capacity, but may double the capacity in that particular location – a major effect.

Implications of Underdevelopment

- 5.10 Mr Osborne outlines the assumptions used in the DCM 2017 model. I address only the assumption noted at paragraph 4.5 (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”.*
- 5.11 The Medium Density Residential Zone (“**MDRZ**”) anticipates townhouse type housing with a density of up to one residential unit per 250 sqm. The Heights development (also known as Scurr Heights) is zoned MDRZ in the proposed District Plan. To date, the subdivision²⁰ has offered three section types²¹:
- (a) Reserve Series (at least 800sqm sites – anticipating “one residential unit” but allowing an attached flat). No further subdivision allowed.
 - (b) The Heights Series (at least 700sqm sites – anticipating “one large single storied residential unit” but allowing an attached flat). No further subdivision allowed.
 - (c) Modern Series (at least 400sqm – anticipating “one single storied residential unit”). No further subdivision allowed.
- 5.12 None of the section types currently released reflect the maximum yield of the MDRZ. While it is possible that other stages may offer smaller sites than those currently released, it is already clear that this important piece of MDRZ in Wanaka is not going to yield a “capacity” development.
- 5.13 It is not possible to determine if the updated DCM has taken account of the actual subdivision yield for Scurr Heights as the capacity for the MDRZ is an aggregate total. I accept that the model is a desktop approach that relies on a number of district wide assumptions and Mr Osborne acknowledges the risk associated with this assumption in paragraph 7.10. However, it *may* be

²⁰ Sourced from <http://theheightswanaka.co.nz>

²¹ The nature of remaining sites (in subsequent stages) is not identified in the developer’s website.

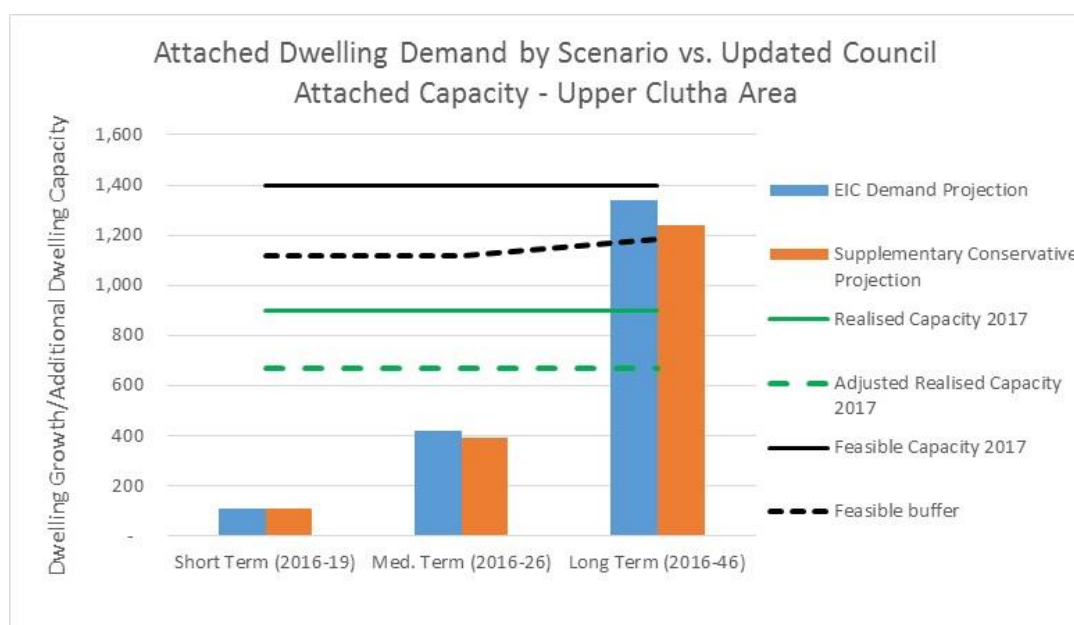
that the capacity for the MDRZ (and total capacity) is slightly overstated as a result of assumptions applied to Scurr Heights²².

- 5.14 Future monitoring of residential development will reveal how effective the proposed residential densities have been in shifting developers away from well-established market preference for moderately large residential sections in Wanaka. This could have significant implications for future capacity audits.

Demand and Capacity by Different Dwelling Types

- 5.15 Although Mr Osborne has not considered demand and capacity by dwelling type, I have estimated the split of Council's feasible and realised capacity (and my estimate of adjusted realised capacity) by attached and standalone dwellings based on weighted average splits by zone type used in Table 2 of my EIC²³ (**Appendix F**). Graph 8 compares my projected dwelling growth for attached dwellings in the Wanaka Catchment against estimated attached dwelling capacity based on Council's latest figures.

Graph 8 – Comparison of Projected Attached Dwelling Growth with Realised and Feasible Attached Capacity 2016-2046 for the Wanaka Catchment.



- 5.16 Graph 8 shows that according to my projections long-term demand (under both scenarios) for attached dwellings significantly exceeds adjusted realised capacity and approaches feasible capacity in the Wanaka Catchment. Long-term demand under both scenarios exceeds the recommended long-term

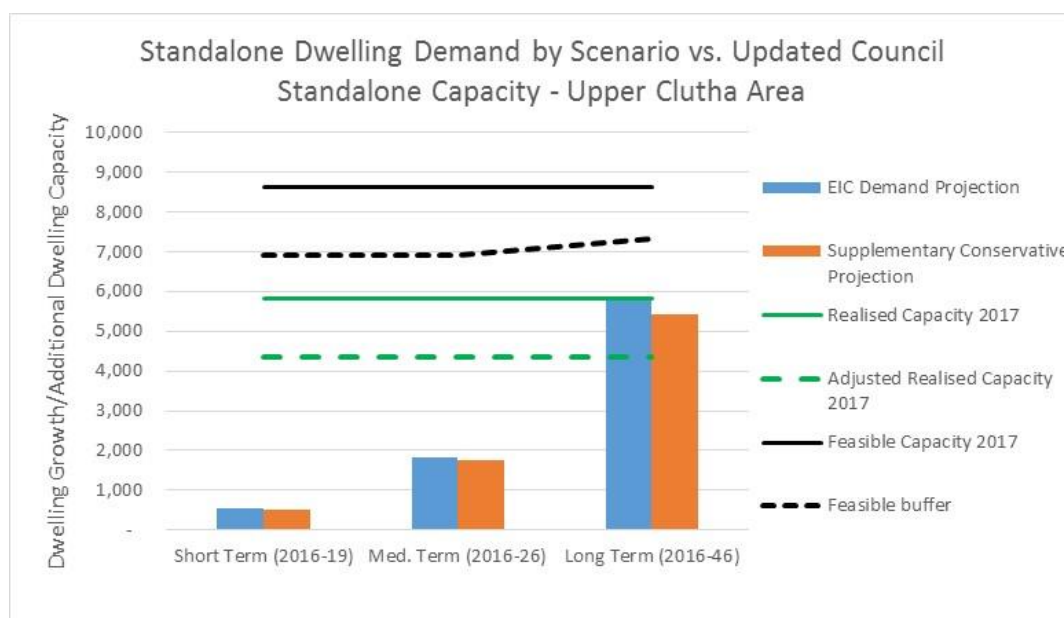
²² It is not possible to tell by how much it is overestimated based on public information currently available and the aggregation of the MDR Zones.

²³ These were estimates for each specific zone, based on outline development plan data where available.

buffer of capacity (15%) by 50-150 dwellings. This indicates that at the very minimum, additional feasible attached dwelling capacity will be required in the long-term to maintain a buffer of capacity. It also implies that the propensity of the market to take up attached development opportunities would need to change *significantly* from current behaviours in order to meet demand. Again, this would need to occur in a market where attached dwelling capacity will be at its lowest level in 30 years assuming no changes in enabled capacity during that time.

- 5.17 Graph 9 compares my projected dwelling growth for standalone dwellings in the Wanaka Catchment against estimated standalone capacity based on Council's latest figures. Graph 9 shows that in the long-term, demand for standalone dwellings (under both EIC and conservative scenarios) exceeds adjusted realised capacity, but sits below feasible capacity (including an allowance for a 15% buffer). This means that while there is spare feasible capacity for standalone dwellings in the long-term, again the propensity of the market to take up standalone dwelling development opportunities would need to change from current behaviours in order to meet demand.

Graph 9 – Comparison of Projected Standalone Dwelling Growth with Realised and Feasible Standalone Capacity 2016-2046 for the Wanaka Catchment.



Acknowledging Latent Demand

- 5.18 Mr Osborne discusses a current latent undersupply of dwellings in the District in both his Residential and Dwelling Capacity²⁴ evidence. I also identified a

²⁴ Refer Osborne Dwelling Capacity Evidence – paragraphy 5.12. District-wide, latent demand of 600-1,200 dwellings.

similar undersupply in my EIC by comparing 2016 households with 2016 occupied dwellings. Across the total Wanaka Catchment, I estimate there to be a net shortfall of 420 dwellings (made up of an oversupply of 280 standalone dwellings and a shortfall of -700 attached dwellings²⁵).

- 5.19 Despite identifying a latent undersupply, Mr Osborne has not considered the implications of this (as a relevant scenario) on dwelling capacity. If Mr Osborne had included a scenario that took account of the current undersupply, then this would be added to demand prior to comparing it against dwelling capacity (as per Scenario 2 of my EIC and **Appendix H** of this statement).

6. **CAPACITY RELATIVE TO DEMAND – WANAKA UGB AREA**

- 6.1 This section relates directly to my EIC and updates my analysis for the Wanaka UGB area based on the latest DCM figures. My original analysis, including the description of relevant scenarios, was included in Section 4 (paragraphs 4.17-4.20) of my EIC²⁶.
- 6.2 **Appendix F** shows how the latest DCM figures translate into estimated attached and standalone dwelling capacity inside the Wanaka UGB. Total feasible capacity is 7,915 (77% of all feasible capacity in the Wanaka Catchment), comprising approximate capacity for 1,300 attached dwellings and nearly 6,620 standalone dwellings. The Council's realised capacity for the UGB is 5,190. Based on my approach, the adjusted realised capacity for the UGB is lower at approximately 3,960. This comprises capacity for just over 620 additional attached dwellings and nearly 3,340 additional standalone dwellings.
- 6.3 As with Section 5, I have kept my dwelling demand projections (in favour of the latest projections by Rationale) and have included a more conservative growth projection that shows a small reduction in the share of unoccupied dwellings over time (shown as the orange bars)²⁷. Growth is shown for the short, medium and long-term outlook. I have contrasted this with the feasible and realised capacity identified in the amended DCM 2017 and my calculations of adjusted realised capacity as shown in **Appendix F**.

²⁵ My EIC reported the shortfall for the Wanaka UGB only (-660). The shortfall of -420 for the Total Catchment is a net result that takes account of an implied oversupply in the rest of the District.

²⁶ See also Appendix E of this statement for revised copies of my graphs (correcting for omission to my initial capacity estimates). These replace the respective graphs in my EIC.

²⁷ The style of the graphs differs slightly to accommodate additional scenarios of capacity and demand and are consistent with the graphs in Section 5 for the total Wanaka Catchment.

Results – Scenario 1 - Latent Undersupply Excluded

- 6.4 Results are shown in **Appendix G**. Under this scenario projected demand in attached dwellings utilises 8% of feasible capacity in the short-term, 29-32% in the medium-term and 92-100% in the long-term. The suggested buffer of capacity is exceeded by 95-195 dwellings in the long-term, implying that additional feasible capacity for attached dwellings should be enabled in the UGB within the medium to long-term period.
- 6.5 Long-term demand for attached dwellings significantly exceeds adjusted realisable capacity and under my original demand projection, would mean that every feasible attached property was developed and there was no land-banking. This is a significant departure from current patterns where an average of 50% of feasible development takes place according to the DCM 2017, and is unlikely. Even allowing for some change in development behaviour over time, the amount of additional feasible capacity required between the medium and long-terms would need to be sufficiently large to significantly increase long-term realisable capacity for attached dwellings.
- 6.6 Under this scenario projected demand in standalone dwellings utilises 6% of feasible capacity in the short-term, 19-20% in the medium-term and 64-59% in the long-term. The suggested buffer of capacity is not exceeded. Long-term demand for standalone dwellings exceeds adjusted realisable capacity by 580-915 dwellings meaning that a small-moderate change in the propensity to develop feasible opportunities would be required to cater for long-term growth.
- 6.7 In aggregate, projected demand in total dwellings utilises 65-70% of feasible capacity in the long-term. The suggested buffer of capacity is not exceeded. Long-term demand for total dwellings exceeds adjusted realisable capacity by 1,160-1,590 dwellings meaning that a significant change in the propensity to develop feasible opportunities would be required to cater for long-term dwelling growth. Any increase in long-term feasible capacity will correspondingly increase realisable capacity.

Results – Scenario 2 - Latent Undersupply Included

- 6.8 Results are shown in **Appendix H**. Under this scenario projected demand in attached dwellings utilises 72% of feasible capacity in the short-term, 92-95% in the medium-term and 155-163% in the long-term. The suggested buffer of capacity is exceeded by 160-190 dwellings in the medium-term and 915-1,015 dwellings in the long-term, implying that additional feasible

capacity for attached dwellings should be enabled in the UGB within the short to medium-term period and again between the medium-long-term period.

- 6.9 As the latent demand means that the market is already undersupplied for attached dwellings, adjusted realisable capacity is exceeded in the short-term and the shortfall gets significantly worse over time. Even allowing for some change in development behaviour over time, the amount of additional feasible capacity required between the short and long-terms would need to be sufficiently large to materially increase long-term realisable capacity for attached dwellings under this scenario.
- 6.10 Under this scenario projected demand in standalone dwellings utilises 3% of feasible capacity in the short-term, 17-18% in the medium-term and 62-57% in the long-term. The suggested buffer of capacity is not exceeded. Long-term demand for standalone dwellings exceeds adjusted realisable capacity by 424-754 dwellings meaning that a small change in the propensity to develop feasible opportunities would be required to cater for long-term growth. These outcomes for standalone dwellings are contingent on the market meeting latent and future demand for attached dwellings, which will free up some standalone housing otherwise occupied by households preferring attached dwellings.
- 6.11 In aggregate, projected demand in total dwellings utilises 78-86% of feasible capacity in the long-term. The suggested buffer of capacity is not exceeded. Long-term demand for total dwellings exceeds adjusted realisable capacity by 1,820-2,250 dwellings meaning that a significant change in the propensity to develop feasible opportunities would be required to cater for long-term growth under this scenario. Any increase in long-term feasible capacity will correspondingly increase realisable capacity.

Results – Scenario 3 - Latent Undersupply Excluded + Status Quo Attached Supply Ratio

- 6.12 Results are shown in **Appendix I**. Under this scenario projected demand in attached dwellings utilises 3% of feasible capacity in the short-term, 9% in the medium-term and 28-30% in the long-term. The suggested buffer of capacity is not exceeded. Should future Wanaka households and holiday home owners maintain current preferences for dwelling types (rather than follow national propensities for attached and standalone dwellings by household type), then even current realisable capacity will be sufficient to meet long-term demand for attached dwellings.

- 6.13 Under this scenario projected demand in standalone dwellings utilises 7% of feasible capacity in the short-term, 23-25% in the medium-term and 72-78% in the long-term. The suggested buffer of capacity is not exceeded. Long-term demand for standalone dwellings exceeds adjusted realisable capacity by 1,420-1,825 dwellings meaning that a significant change in the propensity to develop feasible opportunities would be required to cater for long-term growth.
- 6.14 In aggregate, projected demand in total dwellings utilises 65-70% of feasible capacity in the long-term. The suggested buffer of capacity is not exceeded. Long-term demand for total dwellings exceeds adjusted realisable capacity by 1,160-1,590 dwellings meaning that a significant change in the propensity to develop feasible opportunities would be required to cater for long-term growth. Any increase in long-term feasible capacity will correspondingly increase realisable capacity.

Relevant Considerations

- 6.15 The above results are still based on a number of estimates and assumptions. Unlike the total catchment approach used by Mr Osborne, this analysis acknowledges latent demand as a scenario and addresses the geo-spatial issues of urban Wanaka versus rural/rural town demand and capacity. The matter of a potential overestimate of MDRZ capacity (as a component of total capacity) discussed in paragraphs 5.10-5.14 also applies here.
- 6.16 At an aggregate (total dwelling) level, no additional feasible capacity is required in the Wanaka UGB under any of the scenarios I have modelled. Under all scenarios, the recommended buffer of feasible capacity is also adequate. This is a key change from my EIC findings where all scenarios showed that the buffer of feasible capacity was breached in the long-term²⁸. This change is due to the higher quantum of feasible capacity identified in the updated DCM (2017).
- 6.17 Unlike in my EIC, the DCM now identifies capacity that is likely to be realised. Based on my adjusted realisable capacity, all scenarios I have modelled show that current realisable capacity will not cater for long-term dwelling demand. While there is sufficient feasible demand, this implies that a significant change in market behaviour would be required to meet expected demand. This is difficult to predict so far out, but it is relevant to consider that speculative behaviour may increase as remaining feasible capacity decreases

²⁸ Under Appendix E, my revised EIC results (taking account of 2 zone omissions), the buffer of feasible capacity is breached or reached in all scenarios.

and prices rise due to less competition. As such, a positive outcome of enabling additional capacity in the medium to long-term period (despite a supposed surplus of feasible capacity) is that it increases realisable capacity – which is where demand and supply interact.

- 6.18 At a disaggregated level, additional feasible capacity is required for attached dwellings either in the medium-term (Scenario 2) or between the medium and long-term period (Scenario 1). Under Scenario 3, the feasible capacity is adequate to cover long-term demand. This outcome is very similar to my EIC findings albeit that the shortfalls are reduced and delayed due to higher feasible capacity measured in 2017. Current realisable attached dwelling capacity is significantly compromised based on my estimates in Scenario 1 and 2 also.
- 6.19 Additional feasible capacity for standalone dwellings is not required to meet long-term demand. There is an appropriate buffer of standalone capacity also. This is a key change from my EIC findings where all scenarios showed that the buffer of feasible standalone capacity was breached in the long-term²⁹. Giving regard to realisable capacity though, all three scenarios show that current (adjusted) realised capacity will not meet long-term demand. A small to significant change in market behaviour would be required if future demand is to be met.

Proposed Dwelling Capacity in Context

- 6.20 Submission 149 has a total proposed dwelling yield of approximately 150 standalone dwellings. I consider that this additional capacity should be considered as feasible capacity (in the context of the DCM 2017) for the purpose of analysis and would most likely be available for development in the medium-term and beyond.
- 6.21 Based on the updated DCM, the proposed residential capacity equates to a 1.7% increase in feasible standalone dwelling capacity in the Wanaka Catchment and a 2.3% increase in the Wanaka UGB. Compared to total dwelling capacity, it represents an increase of 1.5% in total Catchment feasible capacity and 1.9% in the UGB.
- 6.22 Overall, the effect of the proposed capacity is small. In contributing to feasible standalone dwelling capacity it also makes a small contribution to

²⁹ Revised EIC results (Appendix E) show that the buffer of feasible standalone capacity would only be breached in Scenario 3.

realisable capacity, which could be under significant pressure in the long-term if current market behaviours persist.

7. CONCLUSIONS

- 7.1 Mr Barr and Mr Osborne conclude the following: "*The findings of the DCM identify that there is adequate feasible residential development capacity within the Upper Clutha area to provide for projected growth in the short, medium and long-term as defined in the NPS*" (Barr, paragraph 7.11). Taking into account my dwelling projections and the amendments to the DCM 2017 that occurred after Mr Barr's and Mr Osborne's evidence, I consider this statement is still applicable. This result is shown in my Graph 7.
- 7.2 A total Catchment comparison of demand and supply for total dwellings only is however a simplistic approach (with a number of limitations) and is not particularly helpful for evaluating the impact of submissions seeking to address rural, rural town or urban demand.
- 7.3 Submission 149 is seeking to add standalone dwelling capacity inside the Wanaka UGB. As such, I have carried out an analysis of demand and capacity in the UGB area, and by dwelling type. I have considered two demand projections (both of which I consider more appropriate to the one relied upon by Council), and three scenarios for measuring the adequacy of residential capacity.
- 7.4 As a result of my updated analysis, I conclude that while the UGB area appears to have adequate feasible capacity relative to long-term growth, this will not all be realised. If current market behaviour persists, the proposed residential zoning would contribute to reducing a potentially significant shortfall of realisable capacity for standalone dwellings in the long-term.
- 7.5 I maintain that the effect of the proposed capacity in Sticky Forest (150 enabled dwellings) is small. According to Mr Barr, even a small increase in dwelling capacity "*will assist in terms of the variety of housing options available*" (paragraph 7.12). I agree with that statement and think it applies in this case also. In light of my updated analysis I have reviewed comments made in my EIC on the submission's urban form effects (paragraph 5.6) and costs and benefits (Section 6), and my conclusions (Section 7). Those comments and conclusions still apply.

Natalie Hampson

12th May 2017

APPENDIX A – COPY OF AMENDED DCM 2017

The following breakdown of capacity from the DCM 2017 was supplied on 10th May 2017 (via email).

Zone Name	Wanaka Ward		Wanaka UGB Only	
	Enabled	Feasible	Enabled	Feasible
High Density Residential	427	281	427	281
Low Density Residential	7,519	3,976	7,519	3,976
Large Lot Residential	374	182	374	182
Mixed Business Use	895	582	895	582
Medium Density Zone	1,090	381	1,090	381
Rural Lifestyle Zone	513	320		
Rural Residential	312	195		
Township	1,178	720	90	50
DCM Total	12,308	6,637	10,395	5,452
Realised Capacity		3,319		2,726
Local Shopping Centre	53	53	53	53
Rural General	294	294		
Rural Visitor (Cardrona)	140	140		
Special Purpose	2,782	2,782	2,282	2,282
Albert Town Riverside Stage 6	128	128	128	128
Capacity Total	15,705	6,716	12,858	5,190

APPENDIX B – M.E ESTIMATED PROJECTED DWELLING DEMAND BY WANAKA CATCHMENT LOCALITY – ORIGINAL EIC SCENARIO

Locality	Original Allocation (Occupied)			Modified Allocation (Occupied) *			Unoccupied Factor **	Adjusted for Unoccupied Dwellings			Average Annual Demand		
	Standalone Dwellings	Attached Dwellings	Total Dwellings	Standalone Dwellings	Attached Dwellings	Total Dwellings		Standalone Dwellings	Attached Dwellings	Total Dwellings	Standalone Dwellings	Attached Dwellings	Total Dwellings
2016 (Demand)													
Wanaka UGB (Approx)	2,480	550	3,030	2,480	750	3,230	36%	3,880	1,170	5,050			
Wanaka Rural Fringe	190	40	230	190	-	190	10%	210	-	210			
Rural Settlement	630	140	770	630	10	640	27%	870	10	880			
Rural	200	40	240	200	-	200	32%	290	-	290			
Total Wanaka Catchment	3,500	770	4,270	3,500	760	4,260	34%	5,250	1,180	6,430			
Short Term Additional Demand (2016-2019)													
Wanaka UGB (Approx)	250	60	310	250	70	320	36%	390	110	500	130	37	167
Wanaka Rural Fringe	20	-	20	20	-	20	10%	20	-	20	7	-	7
Rural Settlement	70	10	80	70	-	70	27%	100	-	100	33	-	33
Rural	20	-	20	20	-	20	32%	30	-	30	10	-	10
Total Wanaka Catchment	360	70	430	360	70	430	34%	540	110	650	180	37	217
Medium Term Additional Demand (2016-2026)													
Wanaka UGB (Approx)	860	190	1,050	860	260	1,120	36%	1,340	410	1,750	134	41	175
Wanaka Rural Fringe	60	10	80	60	-	60	10%	70	-	70	7	-	7
Rural Settlement	240	50	290	240	10	250	27%	330	10	340	33	1	34
Rural	70	20	80	70	-	70	32%	100	-	100	10	-	10
Total Wanaka Catchment	1,230	270	1,500	1,230	270	1,500	34%	1,840	420	2,260	184	42	226
Long Term Additional Demand (by 2016-2046)													
Wanaka UGB (Approx)	2,720	600	3,320	2,720	830	3,550	36%	4,250	1,300	5,550	142	43	185
Wanaka Rural Fringe	190	40	240	190	-	190	10%	210	-	210	7	-	7
Rural Settlement	780	170	950	780	20	800	27%	1,070	30	1,100	36	1	37
Rural	220	50	270	220	10	230	32%	320	10	330	11	0	11
Total Wanaka Catchment	3,910	860	4,780	3,910	860	4,770	34%	5,850	1,340	7,190	195	45	240

Source: Statistics New Zealand and M.E. Figures have been rounded to the nearest 10.

* Based on allocating 90% (estimate only) of attached dwelling demand in Wanaka Rural Fringe, Rural Settlement and Rural localities to the Wanaka UGB.

** 2016 values based on share of Private Occupied and Unoccupied Built Dwellings that are 'Empty' in the 2013 Census (excludes non-private occupied and under construction). Assume applies equally to standalone and attached dwellings as no information available to distinguish otherwise. These are held constant or reduced slightly over time for future growth depending on scenario.

Modified Allocation = estimated occupied dwellings for resident households. Adjusted = inclusion of estimated demand for unoccupied holiday homes.

APPENDIX C – M.E ESTIMATED PROJECTED DWELLING DEMAND BY WANAKA CATCHMENT LOCALITY – CONSERVATIVE SCENARIO

Locality	Original Allocation (Occupied)			Modifed Allocation (Occupied) *			Unoccupied Factor **	Adjusted for Unoccupied Dwellings			Average Annual Demand		
	Standalone Dwellings	Attached Dwellings	Total Dwellings	Standalone Dwellings	Attached Dwellings	Total Dwellings		Standalone Dwellings	Attached Dwellings	Total Dwellings	Standalone Dwellings	Attached Dwellings	Total Dwellings
2016 (Demand)													
Wanaka UGB (Approx)	2,480	550	3,030	2,480	750	3,230	36%	3,880	1,170	5,050			
Wanaka Rural Fringe	190	40	230	190	-	190	10%	210	-	210			
Rural Settlement	630	140	770	630	10	640	27%	870	10	880			
Rural	200	40	240	200	-	200	32%	290	-	290			
Total Wanaka Catchment	3,500	770	4,270	3,500	760	4,260	34%	5,250	1,180	6,430			
Short Term Additional Demand (2016-2019)													
Wanaka UGB (Approx)	250	60	310	250	70	320	34%	380	110	490	127	37	163
Wanaka Rural Fringe	20	-	20	20	-	20	9%	20	-	20	7	-	7
Rural Settlement	70	10	80	70	-	70	26%	90	-	90	30	-	30
Rural	20	-	20	20	-	20	30%	30	-	30	10	-	10
Total Wanaka Catchment	360	70	430	360	70	430	32%	520	110	630	173	37	210
Medium Term Additional Demand (2016-2026)													
Wanaka UGB (Approx)	860	190	1,050	860	260	1,120	32%	1,270	380	1,650	127	38	165
Wanaka Rural Fringe	60	10	80	60	-	60	9%	70	-	70	7	-	7
Rural Settlement	240	50	290	240	10	250	25%	320	10	330	32	1	33
Rural	70	20	80	70	-	70	29%	100	-	100	10	-	10
Total Wanaka Catchment	1,230	270	1,500	1,230	270	1,500	30%	1,760	390	2,150	176	39	215
Long Term Additional Demand (by 2016-2046)													
Wanaka UGB (Approx)	2,720	600	3,320	2,720	830	3,550	31%	3,920	1,200	5,120	131	40	171
Wanaka Rural Fringe	190	40	240	190	-	190	8%	210	-	210	7	-	7
Rural Settlement	780	170	950	780	20	800	23%	1,010	30	1,040	34	1	35
Rural	220	50	270	220	10	230	27%	300	10	310	10	0	10
Total Wanaka Catchment	3,910	860	4,780	3,910	860	4,770	29%	5,440	1,240	6,680	181	41	223

Source: Statistics New Zealand and M.E. Figures have been rounded to the nearest 10.

* Based on allocating 90% (estimate only) of attached dwelling demand in Wanaka Rural Fringe, Rural Settlement and Rural localities to the Wanaka UGB.

** 2016 values based on share of Private Occupied and Unoccupied Built Dwellings that are 'Empty' in the 2013 Census (excludes non-private occupied and under construction). Assume applies equally to standalone and attached dwellings as no information available to distinguish otherwise. These are held constant or reduced slightly over time for future growth depending on scenario.

APPENDIX D – REPLACEMENT 2016 DWELLING CAPACITY ESTIMATES FOR WANAKA UGB – NOW SUPERSEDED

Replaces Table 2 of EIC – corrected for Penrith Bay and Peninsula Bay (DCM 2015)

Location	Zone Name	District Plan Status	Predominant Development Opportunity	Total Residual Capacity (Realistic) March 2015	Allocation Assumptions			Allocation Results		
					Apartments	Terraced Housing/ Flats	Standalone (incl Minor Dwellings)	Apartments	Terraced Housing/ Flats	Standalone (incl Minor Dwellings)
Central Wanaka	Town Centre	Operative	Brownfield	53	100%	0%	0%	53	-	-
Lakeside Road	High Density Residential	Operative	Brown/Greenfield Mix	49	50%	50%	0%	25	25	-
Albert Town	Township	Operative	Greenfield	275	0%	0%	100%	-	-	275
Three Parks	Special Zone	Operative	Greenfield	750	0%	20%	80%	-	150	600
Penrith Park	Special Zone	Operative	Greenfield	64	0%	0%	100%	-	-	64
Peninsula Bay	Special Zone	Operative***	Greenfield	301	0%	0%	100%	-	-	301
Northlake	Special Zone	Operative	Greenfield	1,500	0%	10%	90%	-	150	1,350
North Wanaka	Low Density Residential	Operative	Greenfield	1,083	0%	0%	100%	-	-	1,083
South Wanaka	Low Density Residential	Operative	Greenfield	696	0%	0%	100%	-	-	696
Sub-Total Operative Urban Zone Capacity				4,771	2%	7%	92%	78	325	4,369
North/South Wanaka	Low Density Residential	Proposed *	Infill**	760	0%	0%	100%	-	-	760
Rezoning from Rural	Low Density Residential	Proposed *	Greenfield	389	0%	0%	100%	-	-	389
Scurr Heights	Medium Density Residential	Proposed *	Greenfield	244	0%	50%	50%	-	122	122
Central Wanaka	Medium Density Residential	Proposed *	Brownfield	342	0%	0%	100%	-	-	342
Anderson Road	Mixed Use	Proposed *	Brownfield	339	100%	0%	0%	339	-	-
Sub-Total Proposed Zone Capacity (net additional)				2,074	16%	6%	78%	339	122	1,613
Total Potential Dwelling Capacity in Wanaka UGB (Excluding Rural/Large Lot Residential)				6,845	6%	7%	87%	417	446	5,982

Source: 2015 DCM, QLDC Evidence, M.E (revised for Supplementary Evidence to include Penrith Park and Peninsula Bay)

* assumed net additional to underlying operative zone capacity

** Paetz evidence in reply suggested infill without demolition of existing home.

*** Although contained in the DCM 2015 as a special zone, it is not included as special zone in the ODP and appears as LDR on the operative planning maps.

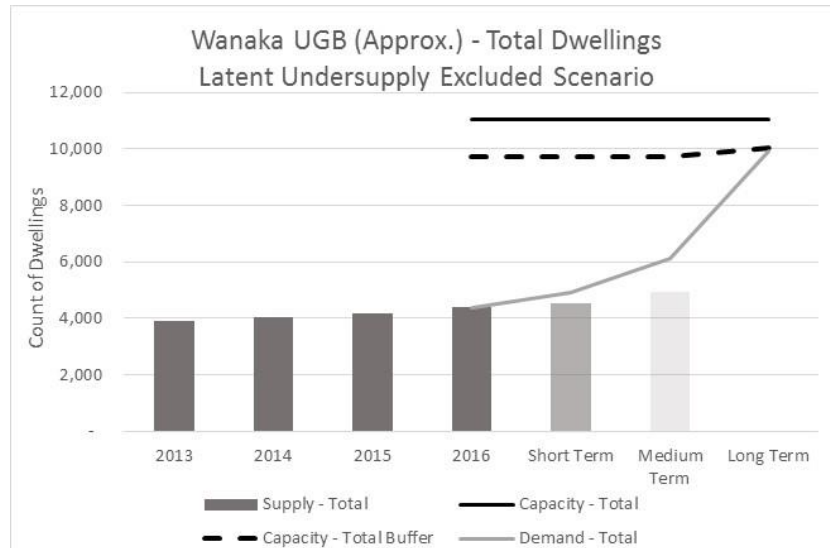
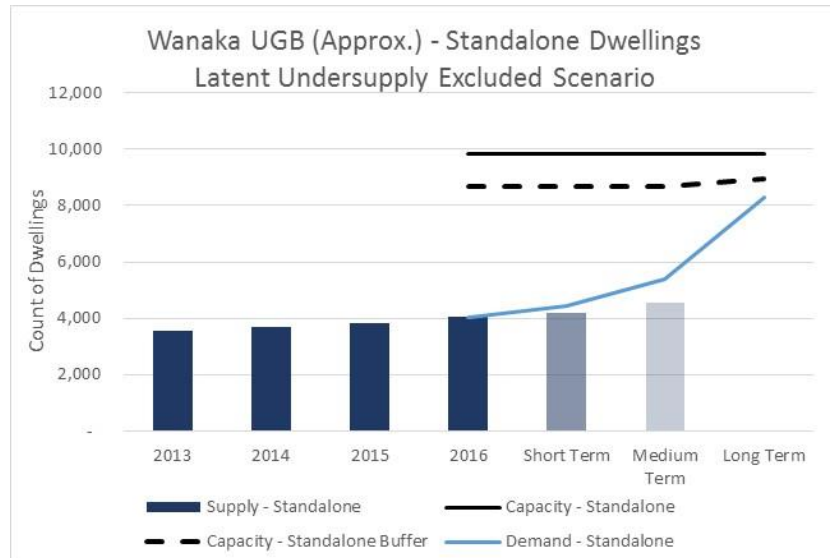
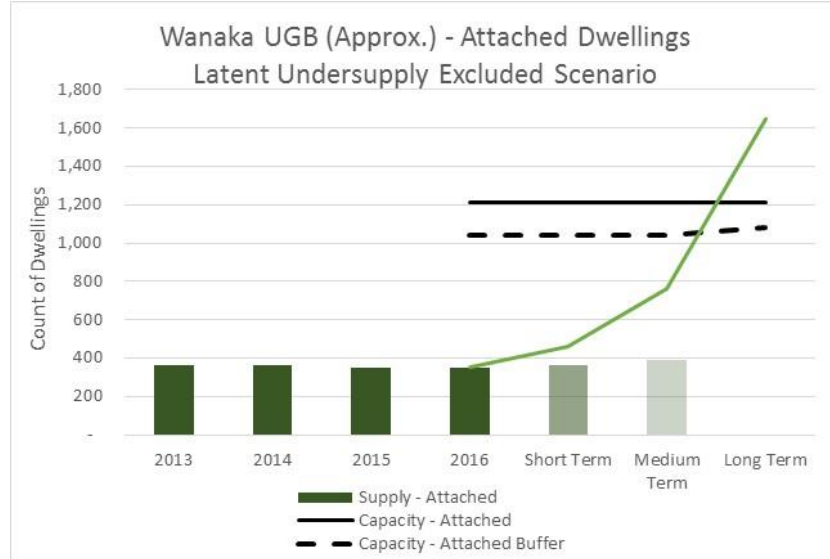
Replaces Table 3 of EIC – corrected for Penrith Bay and Peninsula Bay (DCM 2015)

Predominant Development Opportunity	Apartments	Terraced Housing/ Flats	Sub-Total Attached Dwellings	Standalone (incl Minor Dwellings)	Total Dwellings
Count of Potential Dwellings (Estimates Only) as at 2016					
Infill	-	-	-	760	760
Greenfield	-	422	422	4,695	5,116
Brownfield	392	-	392	342	735
Brown/Greenfield Mix	25	25	49	-	49
Total Potential Capacity	417	446	863	5,797	6,660
Share of Development Opportunity by Dwelling Type (%)					
Infill	0%	0%	0%	13%	11%
Greenfield	0%	95%	49%	81%	77%
Brownfield	94%	0%	45%	6%	11%
Brown/Greenfield Mix	6%	5%	6%	0%	1%
Total Potential Capacity	100%	100%	100%	100%	100%
Share of Dwelling Types by Development Opportunity (%)					
Infill	0%	0%	0%	100%	100%
Greenfield	0%	8%	8%	92%	100%
Brownfield	53%	0%	53%	47%	100%
Brown/Greenfield Mix	50%	50%	100%	0%	100%
Total Potential Capacity	6%	7%	13%	87%	100%

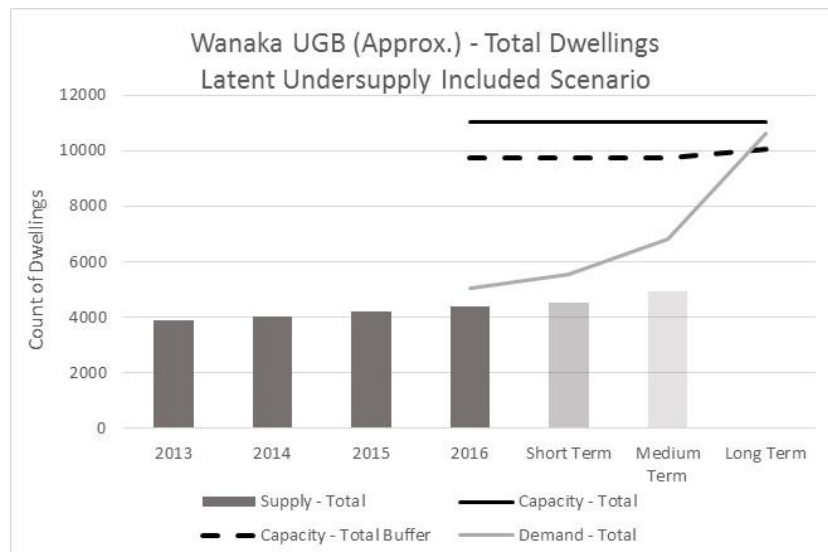
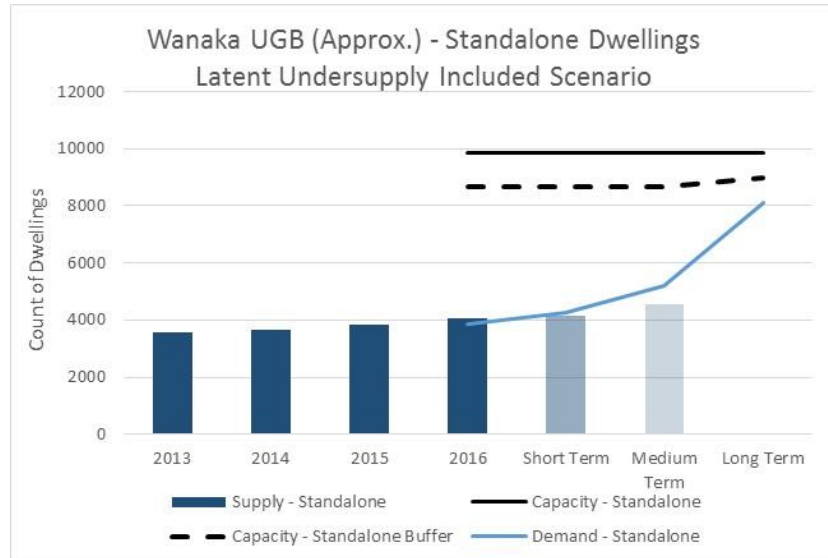
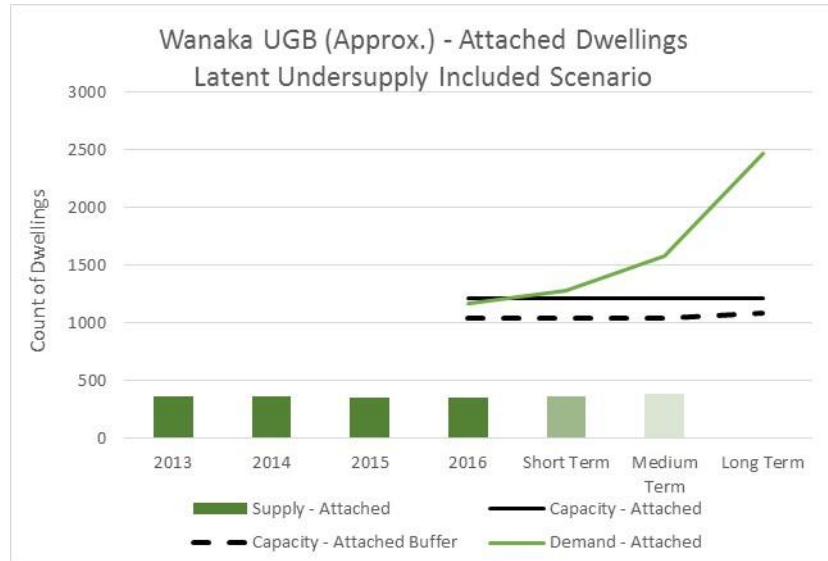
Revised for Supplementary Evidence following inclusion of Penrith Park and Peninsula Bay Special Zones from DCM 2015

APPENDIX E - REVISED EIC RESULTS (DCM 2015) - NOW SUPERSEDED

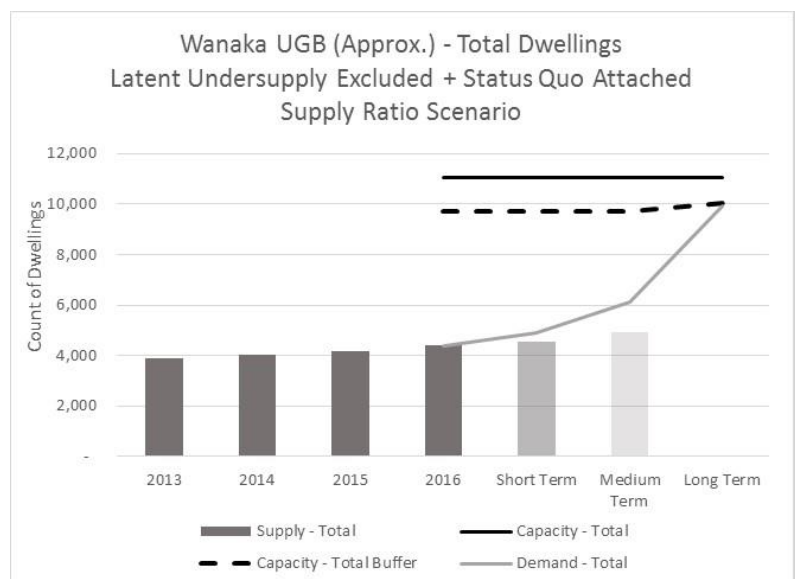
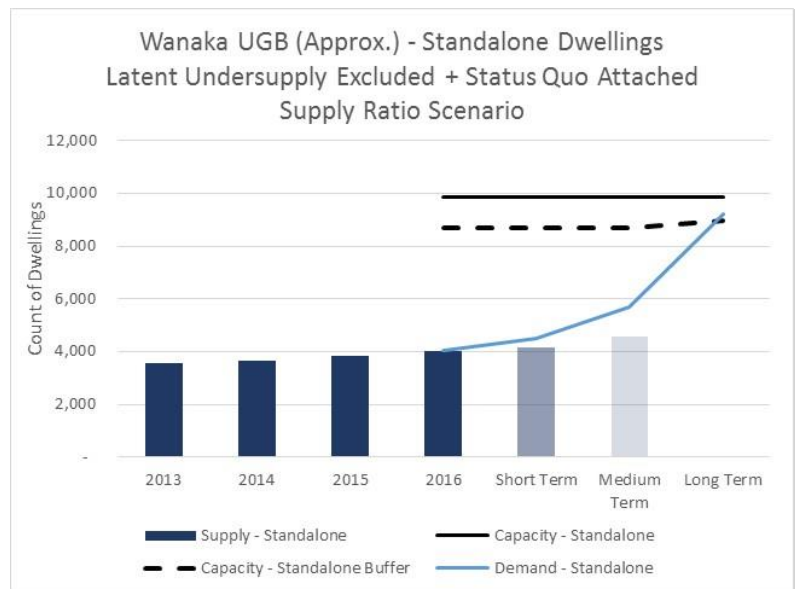
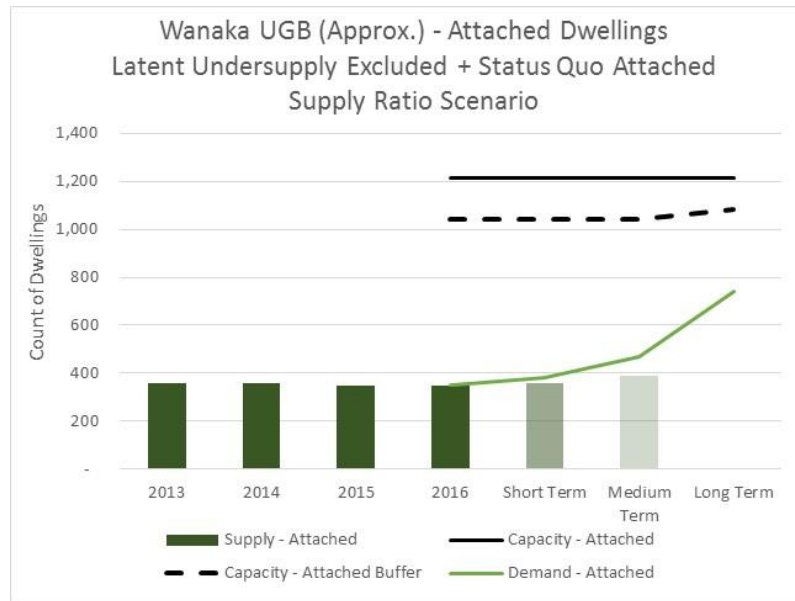
Revised EIC Scenario 1 Results (replaces EIC Appendix J)



Revised EIC Scenario 2 Results (replaces EIC Appendix K)



Revised EIC Scenario 3 Results (replaces EIC Appendix L)



Revised Table 4 of EIC (updated to account for previous omissions from DCM 2015) – Now Superseded

	Short Term	Medium Term	Long Term
Potential Capacity Enabled *			
Capacity - Attached	863	863	863
Capacity - Standalone	5,797	5,797	5,797
Capacity - Total	6,660	6,660	6,660
Total Capacity (Existing and Potential) **			
Capacity - Attached	1,213	1,213	1,213
Capacity - Standalone	9,837	9,837	9,837
Capacity - Total	11,050	11,050	11,050
Proposed Potential Capacity			
Capacity - Attached	0	0	0
Capacity - Standalone	0	150	150
Capacity - Total	0	150	150
Proposed Potential Capacity as share of Potential Capacity			
Capacity - Attached	0.0%	0.0%	0.0%
Capacity - Standalone	0.0%	2.6%	2.6%
Capacity - Total	0.0%	2.3%	2.3%
Proposed Potential Capacity as share of Total Capacity			
Capacity - Attached	0.0%	0.0%	0.0%
Capacity - Standalone	0.0%	1.5%	1.5%
Capacity - Total	0.0%	1.4%	1.4%

* Estimated from DCM 2015 and evidence of Mr Paetz.

** Potential Capacity + 2016 Residential Properties (CoreLogic dataset)

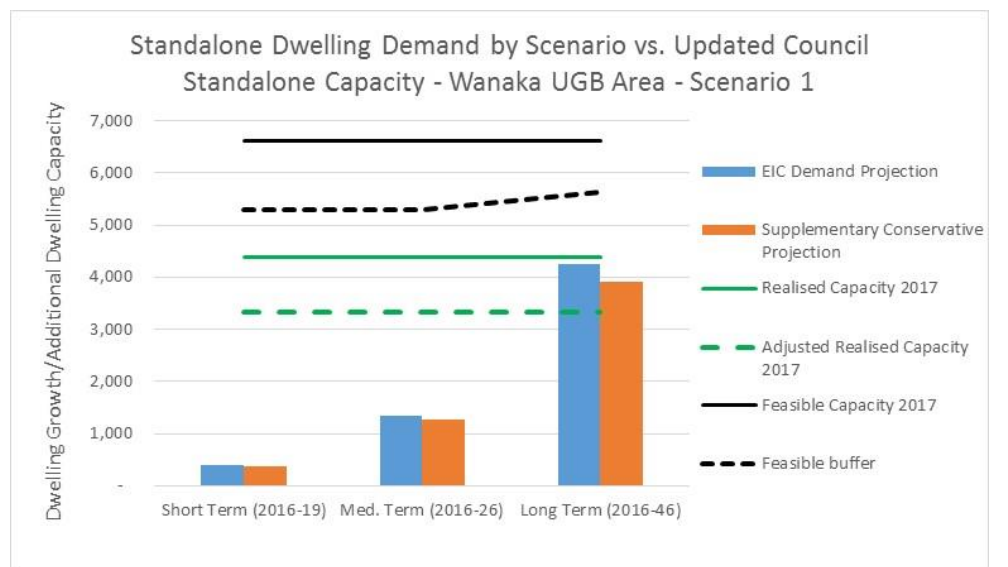
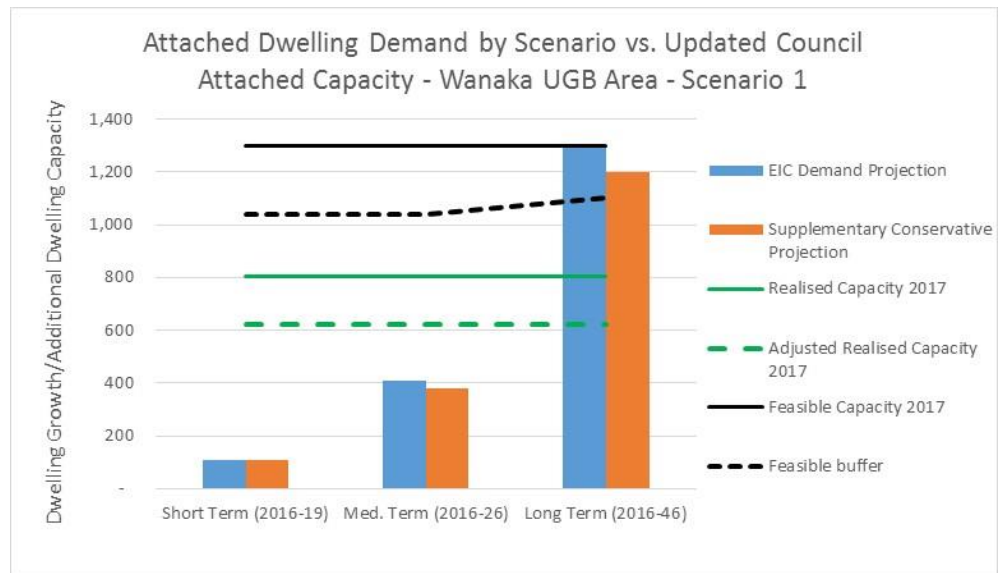
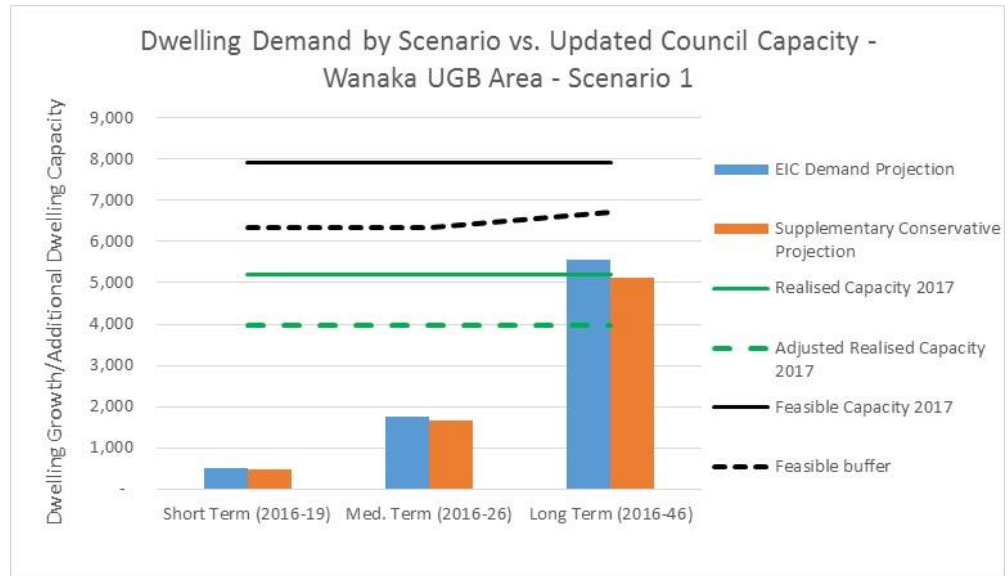
Revised version for supplementary evidence

APPENDIX F – ESTIMATED SPLIT OF CAPACITY BY ATTACHED AND STANDALONE DWELLINGS – WANAKA CATCHMENT BASED ON AMENDED DCM 2017

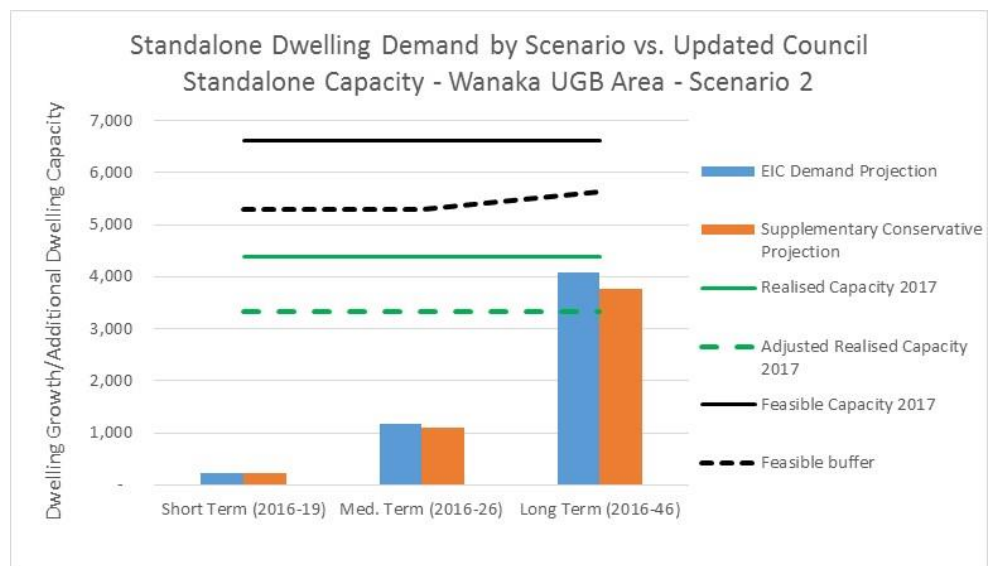
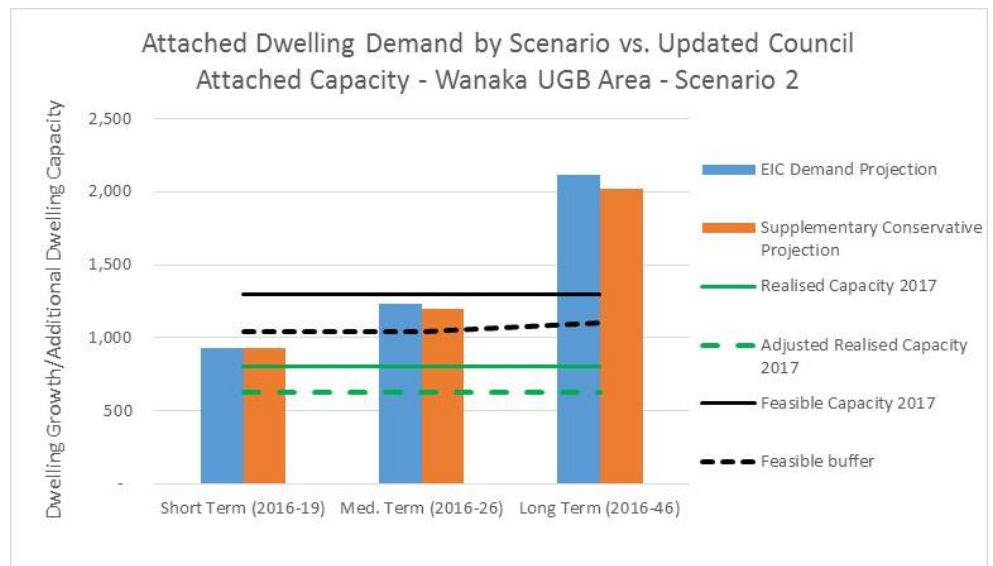
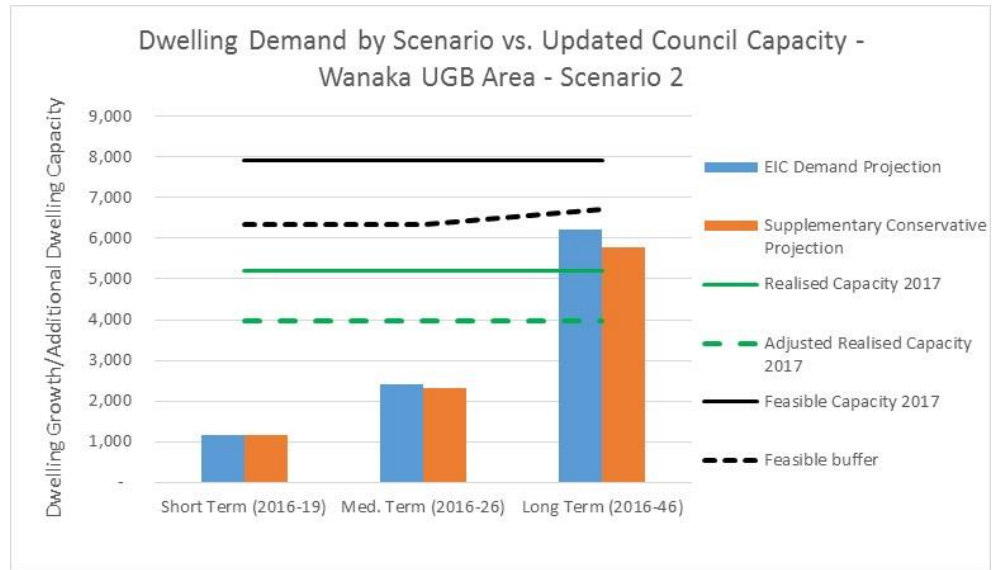
Zone	Development Typology Applied	Feasible Attached	Feasible Standalone	Feasible Total	Realised Attached	Realised Standalone	Realised Total	Adjusted Realised Attached	Adjusted Realised Standalone	Adjusted Realised Total
High Density Residential (UGB)	HDR	281	-	281	107	-	107	107	-	107
Low Density Residential (UGB)	LDR	-	3,976	3,976	-	1,988	1,988	-	1,988	1,988
Large Lot Residential (UGB)	LDR	-	182	182	-	91	91	-	91	91
Mixed Business Use (UGB)	HDR	582	-	582	291	-	291	291	-	291
Medium Density Residential (UGB)	MDR	79	302	381	47	178	225	47	178	225
Rural Lifestyle (Rest of Catchment)	LDR	-	320	320	-	160	160	-	160	160
Rural Residential (Rest of Catchment)	LDR	-	195	195	-	98	98	-	98	98
Township (UGB)	LDR	-	50	50	-	25	25	-	25	25
Township (Rest of Catchment)	LDR	-	670	670	-	335	335	-	335	335
DCM Total Catchment		942	5,695	6,637	445	2,875	3,320	445	2,875	3,320
DCM UGB		942	4,510	5,452	445	2,283	2,727	445	2,283	2,727
DCM Rest of Catchment		-	1,185	1,185	-	593	593	-	593	593
Local Shopping Centre (UGB)	HDR	53	-	53	53	-	53	27	-	27
Rural General (Rest of Catchment)	LDR	-	294	294	-	294	294	-	147	147
Rural Visitor (Cardrona) (Rest of Catchment)	MDR	29	111	140	29	111	140	15	55	70
Special Purpose (UGB)	SPEC	304	1,978	2,282	304	1,978	2,282	152	989	1,141
Special Purpose (Rest of Catchment)	SPEC	67	433	500	67	433	500	33	217	250
Albert Town Riverside Stage 6 (UGB)	LDR	-	128	128	-	128	128	-	64	64
Non-Stage 1 Total Catchment		453	2,944	3,397	453	2,944	3,397	227	1,472	1,699
Non-Stage 1 UGB		357	2,106	2,463	357	2,106	2,463	179	1,053	1,232
Non-Stage 1 Rest of Catchment		96	838	934	96	838	934	48	419	467
Total Catchment Capacity		1,395	8,639	10,034	898	5,819	6,717	671	4,347	5,019
Total UGB Capacity		1,299	6,616	7,915	802	4,388	5,190	623	3,336	3,959
Total Rest of Catchment Capacity		96	2,023	2,119	96	1,431	1,527	48	1,012	1,060

Shares by dwelling types based on averages across zones in Table 2 of my EIC as follows: LDR 100% standalone, MDR 21% attached and 79% standalone, HDR 100% attached, Special Zones 13% attached and 87% standalone. All zones above attributed to one of these typologies.

APPENDIX G – DEMAND VERSUS CAPACITY - SCENARIO 1 RESULTS (DCM 2017)



APPENDIX H – DEMAND VERSUS CAPACITY - SCENARIO 2 RESULTS (DCM 2017)



APPENDIX I – DEMAND VERSUS CAPACITY - SCENARIO 3 RESULTS (DCM 2017)

