

Memo

5th July 2016

To: Auckland Unitary Plan Independent Hearings Panel

From: Patrick Fontein

Subject: **An Analysis of the Current Auckland Unmet Dwelling Demand (Housing Shortfall)**

1.0 Executive Summary

There have been a series of reviews and comments on Auckland's housing shortfall. This analysis considers these reviews and then takes a robust analytical approach to assessing Auckland's current unmet dwelling demand.

The current Auckland dwelling demand can be considered as the ratio of "population divided by the People per Household (PpH)". For an efficient housing market, we can call this "People per Household Efficient", or "PpHE". When we have determined the current Auckland Dwelling Demand, in an efficient market, and we then subtract the current household numbers within Auckland, this then leaves the current Unmet Dwelling Demand estimate.

This analysis shows 1,535,000 people in Auckland as at early 2016, divided by 494,000 dwellings, or a PpH of 3.11. In an efficient market, the long term trend should have Auckland show a PpH of between 2.85 to 2.90, as at 2016.

At a PpH of 2.85 Auckland has an unmet dwelling demand of 44,600 dwellings and at a PpH of 2.90 Auckland has an unmet dwelling demand of 35,300 dwellings.

Based on the above, **we believe a fair and reasonable figure of the unmet dwelling demand for Auckland as at early-mid 2016, is 40,000 dwellings.**



2.0 Previous Reviews of Auckland's housing shortfall

There have been a series of reviews and comments on Auckland's housing shortfall. We will briefly summarise these below:

2.1 MBIE

In 2014, the Ministry of Business Innovation and Employment in their post-election briefing to the Minister Dr Smith last year estimated the shortage to be **18,000 dwellings**. Page 7. <http://www.mbie.govt.nz/about-us/publications/BIMs/2014-bims/building-housing.pdf>

2.2 The Salvation Army

The Salvation Army in their 2015 State of the Nation report estimated the shortage to be between **12,000 and 13,000**. Page 75.

<http://www.salvationarmy.org.nz/sites/default/files/uploads/20150211SOTN2015%20update%20WEB.pdf>

2.3 Auckland Council

In late 2013, Auckland Council stated "There is no definitive estimate of the housing shortage in Auckland, but it's likely to be between 1 and 2 years worth of supply at the current levels of consent activity." That adds up to between **7,500 and 15,000**. The Council were previously frequently cited as estimating the shortage to be between 20,000 and 30,000 houses, but this was cut when the 2013 Census revealed less population growth in Auckland than estimated between 2006 and 2013.

<http://www.aucklandcouncil.govt.nz/EN/AboutCouncil/businessandecconomy/Documents/housingmattersdecember2013.pdf>

This work is now 2-3 years old and there has been a massive surge in population and housing demand since.

2.4 Tony Alexander

Tony Alexander has considered the issues of Auckland's housing shortfall in a review

<http://tonyalexander.co.nz/wp-content/uploads/2015/04/Sporadic-6-April-29-2015.pdf>

Tony's analysis considers the Persons per Household "PpH" in Auckland sits at approx. 3.0 Tony then postulates that if the PpH in Auckland was to assimilate what the PpH is for the rest of NZ, at 2.58, then Auckland would have a housing shortfall of 76,000 dwellings. Tony doesn't state that Auckland will (or should) move to a PpH of 2.58, and is merely stating that if it was 2.58, this is what the number would be. Tony reaches no further conclusions.

In the sections below, we will take a more detailed review of the main issues affecting the Auckland unmet dwelling demand.

3.0 Introduction and Methodology of the SD4 Analysis

The current Auckland dwelling demand can be considered as the ratio of "population divided by the People per Household (PpH)". For an efficient housing market, we can call this "People per Household Efficient, or "PpHE". When we have determined the current Auckland Dwelling Demand, in an efficient market, and we then subtract the current household numbers within Auckland, this then leaves the current Unmet Dwelling demand estimate.

So that leaves three main inputs to evaluate:

1. What should the population figure for Auckland in 2016 be?
2. What is the number of occupied households or dwellings in 2016?
3. What is a reasonable PpHE, if Auckland was an efficient housing market in 2016?



In the sections below, we will look at each of the 3 points:

4.0 What should the Auckland 2016 population figure be?

SD4 have no specific population estimation expertise, however we have researched the data from the relevant experts and provided this below:

- The Feb 2013 NZ Census Auckland population figure was 1,415,550.
- The Feb 2013 NZ Census has 473,448 occupied dwellings in Auckland, and with 33,360 un-occupied dwellings has a total dwellings of 509,625.
- The figures above provide a ratio of 2.99 PpH for occupied dwellings as at Feb 2013. This is the most relevant figure as the unoccupied dwellings do not include occupants, who “may” have been away from Auckland at that time.
- In the 3 years since the Feb 2013 Census there has been very rapid population growth. Auckland Council released information on the 23rd October 2015, (<http://ourauckland.aucklandcouncil.govt.nz/articles/news/2015/10/aucklands-growing-population/>) that Auckland was growing by 43,000 houses per year, as at June 2015. This aligns with Doug Fairgray’s evidence to the IHP, Topic 081a, dated 31 March 2016, Footnote 17, p35, where he states that the population growth rate to 2015 has been above the high projection rate.
- The anecdotally reported population growth to June 2016 has been even greater in the last 12 months.
- There are some slight differences over the classification of population between “usually resident population count”, which adjusts for people missed or counted more than once by the census, residents temporarily overseas etc, and the Census count process. Therefore we will focus on the *increase* in population since Census count in Feb 2013.
- On the basis of the above, I will use a conservative increase of 120,000 over the 1,415,550 figure, for the 3 year period since the Feb 2013 Census, so **1,535,000** people.

5.0 What is the occupied dwellings figure in Auckland in 2016?

- We need to use the 473,448 occupied dwellings and add the increase in dwelling numbers in the last 3 years.
- Building consents are the most reliable figure for this, although they don’t allow for:
 - The existing houses that are demolished (or removed) to make way for the new dwellings
 - Dwellings consented and not built
 - The time lag between when a dwelling consent is issued and when the dwelling is occupied
 - Whether the completed dwelling is actually occupied, or left un-occupied.
 - Based on the above 4 points (especially Point 1), I believe it is fair and reasonable to make a 10-15% deduction on the building consent figures, to provide additional occupied dwellings.
- So lets use the building consent figures in Auckland for the last 3 years of 6,364 in 2013; 7,657 in 2014 and 8,716 in 2015, totalling an extra 22,737 dwellings. With a 10% deduction factor, lets assume this creates an extra 20,500 occupied dwellings.
- This provides a total occupied dwelling figure in 2016 of 494,000 dwellings.



6.0 What is a reasonable PpHE, if Auckland was an efficient housing market in 2016?

The section above provides a 2016 PpH of 1,535,000 divided by 494,000 dwellings, or 3.11.

In an efficient market, the long term trend should have Auckland show a PpH of between 2.85 to 2.90, as at 2016. (see Doug Fairgray's submission to IHP on Topic 081a, dated 31st March 2016, Cl 6.38, pg36 where there is debate of a number between 2.86 and 2.89).

The PpHE for Auckland in 2016 should we believe therefore be between 2.85 and 2.90.

7.0 SD4 comments on the previous review of Auckland's housing shortfall

The Auckland Council's (AC) reviews was carried out in late 2013, MBIE's in 2014 and the Salvation Army's (SA) in 2015. There is an obvious impact on timing, as there has been extremely strong population growth in Auckland and NZ during the last 2-3 years. New dwelling construction has lagged far behind the desired / required 13,000 dwellings per annum, so all of the figures stated by these parties will now need to be revised upwards.

Tony Alexander's discussion / review in 2015 highlighted all of the key issues and merely postulated that "if" Auckland was to have a PpH similar to the rest of NZ, of 2.58, then the housing shortfall would be 76,000 dwellings. Auckland has different demographic and family make up issues than the rest of NZ, so it is unlikely that Auckland will get close to the rest of NZ's PpH.

We believe the biggest issue that the Auckland Council, MBIE and Salvation Army reviews don't directly state but is implicit, is that Auckland's extreme housing affordability issues is actually creating a reduction in demand, from the demand that would exist if Auckland was a normal functioning (more affordable) or efficient housing market.

So when we consider the MBIE, AC and SA numbers of 12-18,000; add a further amount accounting for the last 2-3 years of under-supply; add a further quantum of demand that would move Auckland from the current "unaffordable" market state to an efficient market, then the MBIE, AC and SA assessments could reasonably move towards the 35,000 to 45,000 range.

8.0 Conclusion

For a population of 1,535,000 at a PpH of 2.85, Auckland would need 538,600 dwellings.

For a population of 1,535,000 at a PpH of 2.90, Auckland would need 529,310 dwellings.

At a PpH of 2.85 Auckland has an unmet demand of 44,600 dwellings and at a PpH of 2.90 Auckland has an unmet demand of 35,300 dwellings.

Based on the above, **we believe a fair and reasonable figure of the unmet dwelling demand for Auckland as at early-mid 2016, is 40,000 dwellings.**

