

LAND AND HOUSING SUPPLY

Douglas Fairgray, Director, Market Economics Ltd

This paper addresses Land and Housing Supply, in the general context of what happens next in an economic down turn after an extended period of strong growth. There are several influences on short and longer term supply and demand, and I address four here:

1. The outlook for housing demand - short, medium and long term.
2. The geography of housing demand, which will drive supply issues and responses.
3. Auckland Case Study - Finding Enough Capacity for Growth.
4. Public sector involvement - affordable housing policies and development contributions.

Issue #1 – Outlook for Housing Demand – short, medium and long term.

Macro economic factors – the New Zealand housing market is driven by the mix of long term demography and economic growth, medium term structural shifts in society, and short-medium term trends and fluctuations, especially in economic conditions. Our perceptions tend to be dominated by the present, which places focus on the short-medium term shifts, and especially the current economic trough.

This economic downturn has seen a fall in house prices, a drop in the value of the residential property estate (Figure 1), and a decline in housing market activity.

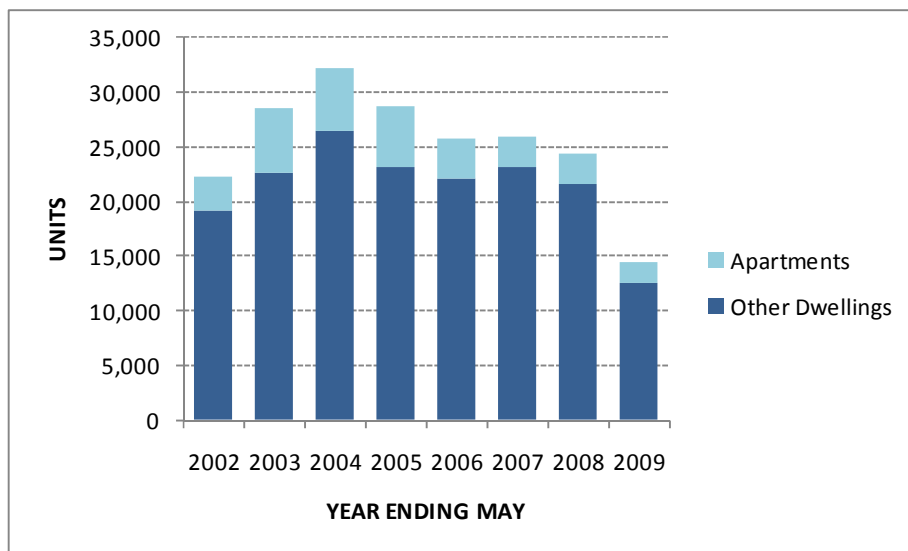
FIGURE 1: HOUSE PRICES & VALUE OF HOUSING STOCK



Source: Reserve Bank, Key Graphs April 2009/www.rbnz.govt.nz/keygraphs/fig4.html

The number of new dwelling consents has fallen substantially (Figure 2), by May 2009 total volume was down 46% compared with the average of the 2002-08 period.

FIGURE 2: NEW DWELLING CONSENTS 2002-2009



Source: Statistics NZ: [/www.stats.govt.nz/products-and-services/hot-off-the-press/building-consents-issued/building-consents-issued-may09-hotp.htm](http://www.stats.govt.nz/products-and-services/hot-off-the-press/building-consents-issued/building-consents-issued-may09-hotp.htm); and [may07-hotp.htm](http://www.stats.govt.nz/products-and-services/hot-off-the-press/building-consents-issued/building-consents-issued-may07-hotp.htm)

At the same time, there has been a significant decrease in mortgage interest rates¹ and while the market remains conservative and slow, after several years of decline housing affordability has turned upward in the last 12 months.

We have not yet seen a quantum shift in price expectations², and I do not expect such a shift. Rather, I would expect the market to remain slow, with some further easing of prices and not much change in interest rates over the next 12-18 months – the housing market will largely reflect the general economy, though with probably a greater fall in housing value from the peak in early 2008, as 10-12% may be knocked off prices³.

On the supply side, this slowness in the market will have three main effects:

- i. available land supply will not be taken up as quickly. However, the lower holding costs (finance) will help relieve pressure on land prices, such that substantial further falls in land prices are unlikely;

¹ RBNZ figures show 6.44% for May 2009, compared with 10.7% in May 2008 and 9.9% in May 2007.

² QV.co.nz Housing Survey June 2009 indicated a net 21% of respondents expected further decline in values, while a net 38% consider now is a good time to buy.

³ RBNZ figures show a decline of 7.8% in the value of housing between Q1 2008 and Q4 2008, while QVNZ data indicate a further drop of around 2.4% between October 2008 and April 2009

- ii. the supply of new dwellings will remain below recent historic supply levels in the short term, with consequences for the construction sector in terms of employment, and especially downward pressure on prices;
- iii. there may be more opportunities for brownfield development in main urban areas, as the rate of commercial development also remains relatively slow, and there is less competition for redevelopment sites.

When the market does pick up again, there will be some pent-up demand, but likely a more conservative mindset about investment and willingness to pay, which will persist for some time after the economic fundamentals improve. There is likely to be also a longer term structural gain for first home buyers entering the market in the next 2-3 years, as the combination of lower prices and lower interest rates will see them pick up a relatively large slice of short term capital gains.

The medium and long term fundamental drivers are unlikely to shift significantly. Even though new annual consents have fallen substantially to 2009, average dwelling size and value per sqm have continued to increase. The key demographic trend is obviously the ageing population and the advance of the baby boomers, together with the current/impending surge in household formation by the children of those boomers. Delaying that surge is the structural shift in demand arising from the introduction of tertiary education debt, which has delayed household formation and purchase of the first dwelling for many now in the workforce.

Nevertheless, I do not expect that the current economic downturn will result in substantial changes to the underlying, long term trends in demand, or supply, apart from slowing activity in the short term. The long term trend is for steady demand growth, driven by the demographic fundamentals of population growth, household formation, and regular shifts by households to progress within the property market. Household projections indicate around 21-22,000 new households annually over the next decade, which implies underlying demand for around 22-24,000 additional dwellings annually, as well as replacements of existing stock. Predominantly, this will be demand for separate dwellings, in the larger urban areas.

Issue #2 – The geography of housing demand.

Given this, it is important to address the question of where this demand will be manifest, since this obviously will determine where supply issues are most likely to arise, and what those market responses are likely to be.

Housing demand is heavily concentrated in the main urban areas, especially Auckland and Christchurch. Auckland accounts for around 46% of total national demand growth over the next decade with about 100,000 additional dwellings required in total, or about 10,000 dwellings annually. Canterbury is next, with 12% of the national total, somewhat over 26,000 additional dwellings over the decade, or about 2,600-2,800 annually. The other main areas of demand are Wellington (9%, 2,000 dwellings a year), Waikato (8.7%, 1,900-2,000 dwellings a year) and Bay of Plenty (7.1%, 1,500-1,600 dwellings each year), shown in Table 1.

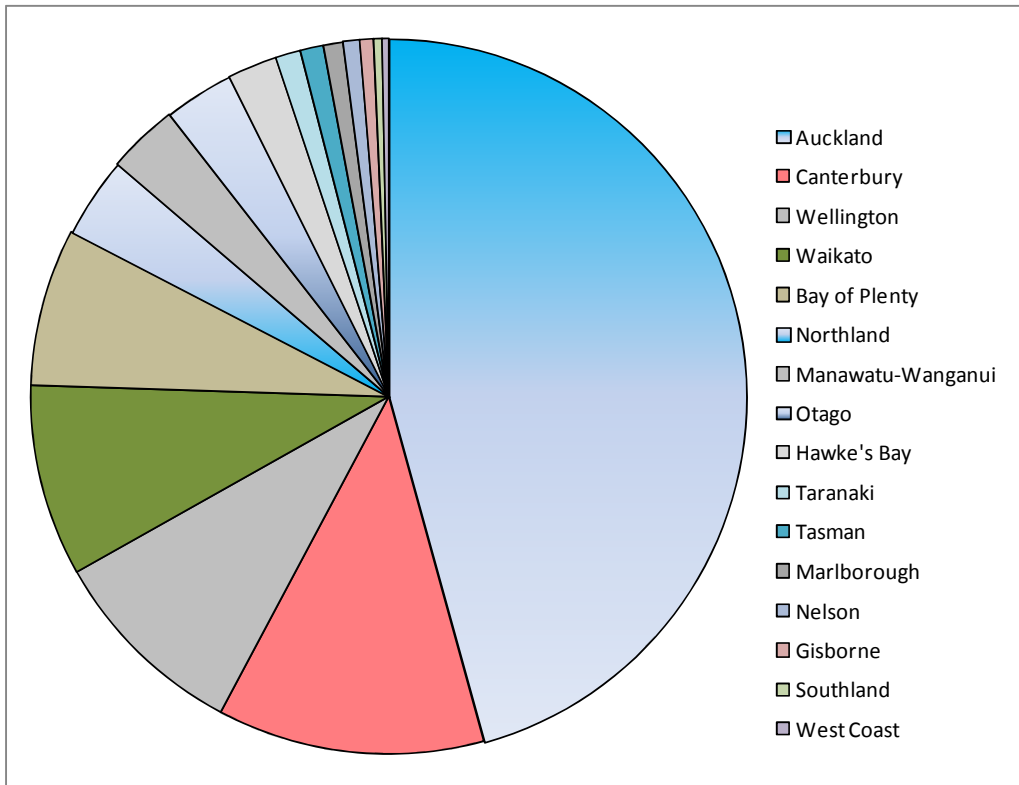
Simply, the largest 5 regions account for nearly 83% of total demand (Figure 1).

TABLE 1: HOUSEHOLD GROWTH BY REGION 2010-2019

Region	Households 2010-2019 (Medium)	Share %	Cumulative Share %
Auckland	100,000	45.7%	45.7%
Canterbury	26,410	12.1%	57.8%
Wellington	19,820	9.1%	66.8%
Waikato	18,930	8.7%	75.5%
Bay of Plenty	15,540	7.1%	82.6%
Northland	7,990	3.7%	86.3%
Manawatu-Wanganui	7,010	3.2%	89.5%
Otago	6,900	3.2%	92.6%
Hawke's Bay	4,920	2.2%	94.9%
Taranaki	2,480	1.1%	96.0%
Tasman	2,300	1.1%	97.0%
Marlborough	1,940	0.9%	97.9%
Nelson	1,650	0.8%	98.7%
Gisborne	1,350	0.6%	99.3%
Southland	830	0.4%	99.7%
West Coast	660	0.3%	100.0%
TOTAL	218,730		

Source: Statistics NZ Medium Population Projection (see Note 6)

FIGURE 3: PROJECTED HOUSEHOLD GROWTH BY REGION 2010-2019



Source: Statistics NZ Medium Population Projection (see Note 6)

Unsurprisingly, most of this demand is in the main urban areas. Growth is expected throughout the Auckland region, but with 8-9,000 dwellings annually in the four cities (Auckland, Manukau, North Shore and Waitakere), soon to be one “SupaCiti”. Much of this growth is targeted to be within the metropolitan urban limits or MUL. Canterbury’s growth is predominantly in Greater Christchurch as defined in the Urban Development Strategy (UDS) with two thirds of the growth (16,000 dwellings) in Christchurch City, and one-third (8,000) on the urban fringe and towns (Rangiora, Kaiapoi). Wellington’s growth is intended to be mostly in Wellington City (10,000), but also significant shares in Kapiti Coast and Lower Hutt (3,000 each).

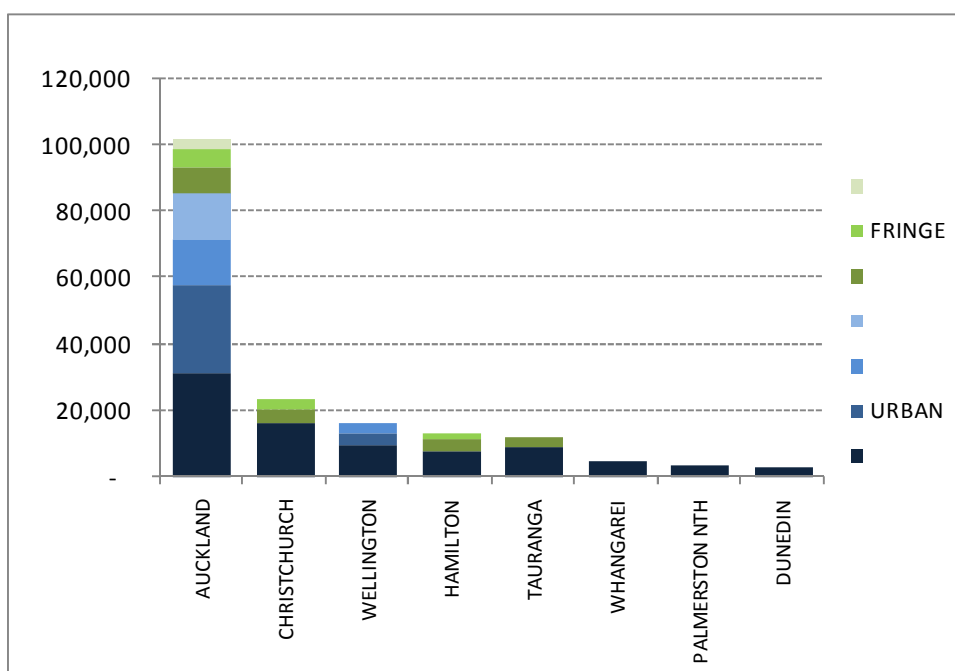
Similarly, for the Waikato read mostly in Hamilton urban area (8,000 dwellings) through outward expansion, and with some in surrounding towns (Cambridge, Te Awamutu) and rural areas. And in Tauranga and Western Bay of Plenty, most of the 12,000 or so dwellings will be accommodated through outward growth to the east (Papamoa), west (Omokoroa) and south (Tauriko). The largest 25 TAs account for 87% of total demand growth (Figure 2, see Appendix 1 Table 2).

TABLE 2: HOUSEHOLD GROWTH BY REGION AND TA 2010-2019

TA	Region	Households 2010-2019 (Medium)	Share %	Cumulative Share %
Auckland City	Auckland	30,940	14.1%	14.1%
Manukau City	Auckland	26,810	12.3%	26.4%
North Shore City	Auckland	13,720	6.3%	32.7%
Waitakere City	Auckland	13,660	6.2%	38.9%
Rodney District	Auckland	8,120	3.7%	42.6%
Franklin District	Auckland	5,070	2.3%	45.0%
Papakura District	Auckland	3,190	1.5%	46.4%
Christchurch City	Canterbury	16,110	7.4%	7.4%
Waimakariri District	Canterbury	4,000	1.8%	9.2%
Selwyn District	Canterbury	3,570	1.6%	10.8%
Wellington City	Wellington	9,850	4.5%	4.5%
Kapiti Coast District	Wellington	3,180	1.5%	6.0%
Lower Hutt City	Wellington	2,950	1.3%	7.3%
Hamilton City	Waikato	8,080	3.7%	3.7%
Waikato District	Waikato	3,060	1.4%	5.1%
Waipa District	Waikato	2,210	1.0%	6.1%
Tauranga City	Bay of Plenty	9,190	4.2%	4.2%
Western Bay of Plenty District	Bay of Plenty	2,980	1.4%	5.6%
Rotorua District	Bay of Plenty	2,250	1.0%	6.6%
Whangarei District	Northland	4,520	2.1%	2.1%
Far North District	Northland	2,970	1.4%	3.4%
Palmerston North City	Manawatu-Wanganui	3,710	1.7%	1.7%
Dunedin City	Otago	3,180	1.5%	1.5%
Hastings District	Hawke's Bay	3,130	1.4%	1.4%
Queenstown-Lakes District	Otago	2,840	1.3%	1.3%

Source: Statistics NZ Medium Population Projection (see Note 6)

FIGURE 4: PROJECTED HOUSEHOLD GROWTH IN MAIN URBAN AREAS 2010-2019



There is an important difference between the major urban areas – Auckland, Christchurch, Wellington – and the other regional cities. The regional cities like Hamilton and Tauranga are planning to accommodate their growth predominantly through outward expansion, with greenfield development on the existing urban fringes, and residential land taking over mainly farmland and rural lots.

However, in Auckland, Christchurch and Wellington, the growth strategies are focussing on residential intensification within the existing metropolitan limits, with limited outward expansion, and a lower share of development in greenfield areas. This implies two substantial changes in the land market in those cities.

One is a progressive shift in the nature of demand, toward a wider range of dwelling styles and especially toward medium and high density dwelling styles. Obviously, the drive for higher density means smaller private land area per household and per person, complicated by the parallel trend toward greater dwelling and indoor living space per person. The aim for the efficiencies of compact cities means a shift away from separate dwellings, toward multi-unit dwellings, and much greater built intensity on the land. This is consistent, to some degree, with declining average household sizes as the population ages.

The second is a shift in how the land supply market will operate. A progressively smaller share of supply will come from relatively large greenfield reserves, while a progressively larger share of supply will come through the intensification process, and brownfield development. Intensification comes from a set of more complex processes. One is through decisions by individual residential property owners to subdivide an existing section, to fit on a second dwelling, or to sell it so that someone else can build. Another is also by individual property owners' decisions to re-develop, and build themselves a new dwelling while also adding one or a few more dwellings, which usually involves a change from one separate house to 2-4 town houses or units. A key feature of these processes is that they occur at a small scale and arise from many individual *ad hoc* decisions. They are not usually part of an integrated or planned process, and are difficult to forecast in other than aggregate terms (eg assume 5% of existing developed residential properties in this area will add another dwelling over the next decade).

A third process is re-development of business land to residential uses, which typically involves medium or high intensity residential because of the higher value of business land, and the higher costs involved in redevelopment as distinct from greenfield growth. Related to this is the process of

combining commercial and residential capacity on a single site, usually with apartments on the upper levels above offices. This combination of activities requires that both commercial and residential markets are sufficiently attractive to invest, especially the commercial which commonly accounts for the major part of mixed development.

Residential development on business land typically involves a medium scale of residential capacity (apart from CBD apartments from office-block conversions). And these developments also tend to occur in an *ad hoc* manner as opportunity arises, rather than through comprehensive redevelopment over substantial areas⁴.

This means the delivery of residential supply in the two major centres of growth – Auckland and Christchurch, accounting for close to 58% of total national demand – is likely to be at progressively smaller scale and based on many individual decisions, as distinct from the typically larger scale which has characterised greenfield developments on the urban edge, in the past.

Nevertheless, in the regional cities such as Tauranga and Hamilton, the pattern of incremental outward expansion through greenfield development, with comprehensive structure plans, staging and the like, will account for most residential growth into the medium term.

⁴ Notwithstanding some larger scale developments do occur where substantial land tracts have become available, such as the previous Ceramco site in New Lynn.

Issue #3 –Auckland Case Study - Finding Enough Capacity for Growth.

Auckland is where the main issues are expected in providing adequate land and housing supply. Market Economics and Harrison Grierson Ltd undertook a study in 2008 for the Department of Housing and Building⁵ to address the question of the adequacy of Auckland Region's Residential Land Supply. The study addressed four questions:

- i. How does the land-supply process work?
- ii. How much vacant land is available for residential housing, where is it located, who owns it?
- iii. Is there an adequate supply of land suitable for residential housing development?
- iv. Are there rigidities or blockages in the land supply process that may be contributing to an inefficient use, allocation and rate of release of land, particularly for the development of higher density housing?

Q1 - How does the land-supply process work?

Land supply is governed by the overarching Growth Concept in the Auckland Regional Growth Strategy, which is based around the idea of a Compact City form, where growth is focused in and around centres and along transport corridors, and there is limited expansion at the urban borders. Auckland is constrained by the Metropolitan Urban Limit (MUL) divide between urban and rural uses, to protect the Region's natural and heritage resources. Implementation is through the LGAAA (2004) and RPS, with the Regional Growth Forum delivering the Growth Concept through the Northern, Central and Southern Sector Agreements.

Extensions to the MUL are governed by a framework within the RPS. Extensions are limited so as not to compromise objectives for intensification and a compact city, and in practice are complex, difficult and take about 5 years to work through the consent process.

Otherwise, within the MUL market forces of demand and supply operate. By constraining the total quantity of land supply, the MUL provides incentive for more efficient urban land use. There is evidence that as land supply is becoming increasingly constrained, this is likely to result in higher residential land prices throughout the city, and will potentially impact on housing affordability.

The study concluded that regional and local authorities are facing increasingly difficult and complex challenges in achieving the goal of a compact city, and noted that:

“Adequate land supply implies a careful balancing act between constraining urban land supply, through the application of the MUL or similar regulation, on the one hand and a

⁵ Adequacy of the Auckland Region's Residential Land Supply 2008 - /www.dbh.govt.nz/auckland-regions-residential-land-supply

measured approach to urban expansion on the other hand to avoid sharp spikes in land prices.”(p2)

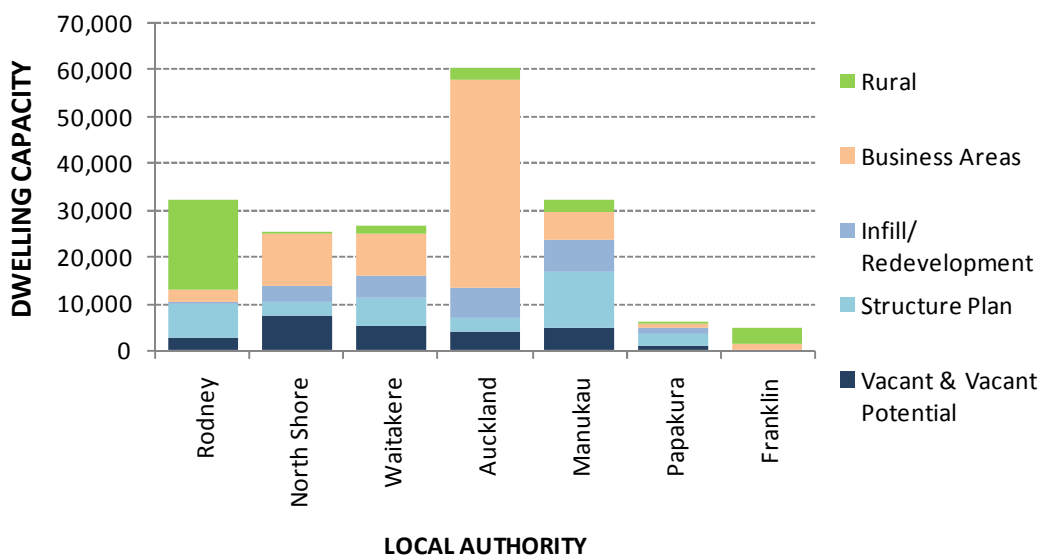
It also noted the potential for market power to accrue to a limited number of land owners if they held back land from development to maintain prices at high levels.

Q2 - How much vacant land is available for residential housing, where is it located, who owns it?

As at June 2008, under current zoning regulations, development practices and market preferences, there is capacity for some 188,690 dwellings within the Auckland region (Figure 5).

Vacant land accounts for only 13.4% (25,270 units) of Auckland’s total available residential capacity. The Structure Plan areas have capacity for 34,200 units, 18.1% of total capacity, and much of this land is held by major land owners and developers, for a range of reasons. Capacity through infill and redevelopment of established residential areas accounts for 23,400 units (12.4%). The balance is in business areas (75,260 units or 39.9%) and rural areas (30,570, or 16.2%).

FIGURE 5: AUCKLAND RESIDENTIAL CAPACITY BY SOURCE, 2008



If the urban TAs focus on limiting infill and driving redevelopment, then greater capacity could be realised, to around 199,000 units or more if site aggregation and comprehensive redevelopment is facilitated. However, the estimate includes significant capacity in rural parts of the region which may not become available for general urban growth, due to market preferences and council policy response. Removal of the rural capacity would see regional total capacity at 168-178,000 units.

Moreover, while 77% of overall capacity is within the MUL, only 51% of capacity at conventional density (ie standalone houses on 400sqm or more of land) is within the MUL. Overall, conventional

density accounts for just over one-third of estimated capacity (35.7%), while medium density accounts for 19.2%, and high density a large share, at 45.1% (Table 3).

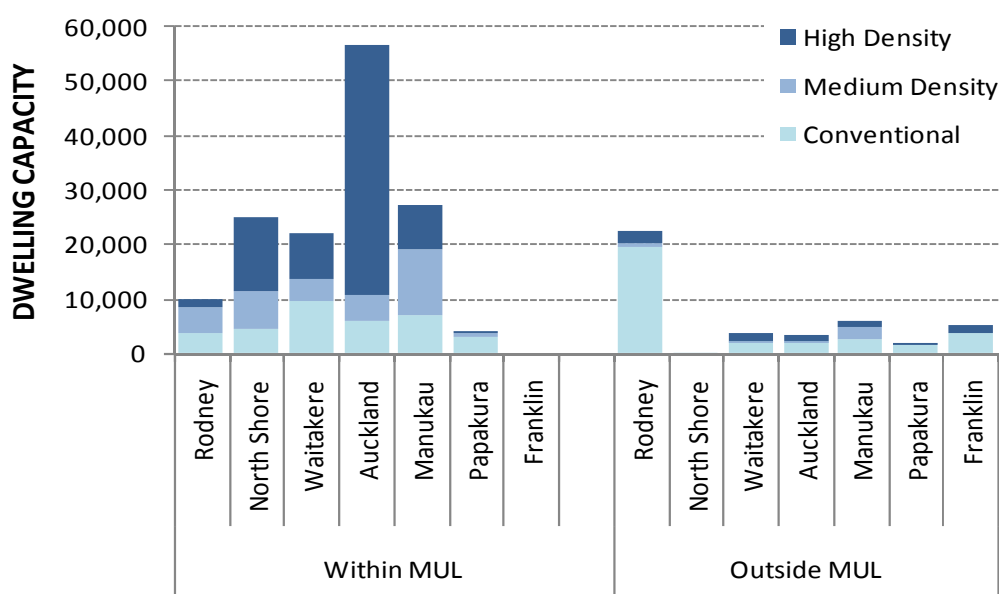
TABLE 3: AUCKLAND DWELLING CAPACITY BY DENSITY CATEGORY AND LOCATION 2008

Location	Conventional	Medium Density	High Density	TOTAL
Within MUL	34,300	33,300	78,000	145,600
Outside MUL	33,000	3,000	7,100	43,100
TOTAL	67,300	36,300	85,100	188,700
Within MUL	18.2%	17.6%	41.3%	77.2%
Outside MUL	17.5%	1.6%	3.8%	22.8%
TOTAL	35.7%	19.2%	45.1%	100.0%

Source: DBH Adequacy of Auckland Region's Residential Land Supply, Table 3.10 p33

The distribution of capacity for conventional (400 sqm+ land area per unit), medium density (200-400 sqm) and high density (<200 sqm) across the local authority areas is shown in Figure 6.

FIGURE 6: AUCKLAND RESIDENTIAL CAPACITY BY DENSITY CATEGORY and TA 2008



Source: DBH Adequacy of Auckland Region's Residential Land Supply, Table 3.10 p33

These figures indicate substantial pressure on residential growth in the Auckland region. Without a significant increase in capacity at conventional density (such as extension to the MUL), there needs to be significant change in market preferences towards intensive residential in order for the region's limited supply to be able to accommodate projected future growth. If all or some of the assumed rural capacity (30,570 units, including 49% of conventional capacity) does not become available, then the pressures on residential land supply within the MUL will be greater, and occur earlier.

Further, a high proportion of capacity (40%) lies within business areas. This is a second risk to residential supply, because of likely strong competition by commercial uses, and because it is generally higher density. To date, the higher density living environments have not been favoured by families with children, because of limited amenity and restricted housing style choices. Currently around 12% of the region's households reside within business areas, and this share would need to increase significantly for the region to achieve its Compact City goals.

Q3 - Is there an adequate supply of land suitable for residential housing development?

The medium population growth scenario sees some 210,600 additional households in the Auckland region by 2031 (or by 2025 under a high scenario)⁶. Depending on the supply scenario chosen, this represents a supply shortfall of between 12,000 and 43,000 in 2031, with the most likely shortfall being around 22,000. Based on current zonings, the residential supply capacity will not meet the region's growth needs over the next 25 years.

This raises concern about the quantum and composition of capacity. In Auckland, conventional density is the traditional housing choice. However, the Base Case scenario suggests that capacity for additional conventional density housing is likely to be exhausted by the early 2020s. In Auckland, North Shore and Manukau cities, land capacity for conventional density housing would be exhausted between 2015 and 2016, or in 7 to 8 years' time. If there is no additional capacity for conventional housing provided on rural land, or population growth is faster than assumed, then the urban capacity would be consumed sooner than that.

The implication is that significant changes in householders' dwelling preferences - in favour of more intensive living and/or an increased supply of greenfield land - would be required in order to avoid shortfalls of conventional housing capacity in Auckland.

Conventional economic thinking suggests that constrained land supply will raise prices and force the uptake of alternative housing choices, or alternative living locations. Either outcome has potentially significant economic and social consequences, which would need to be carefully assessed in relation to the supply limitations and changes to housing styles implicit in the current policy environment.

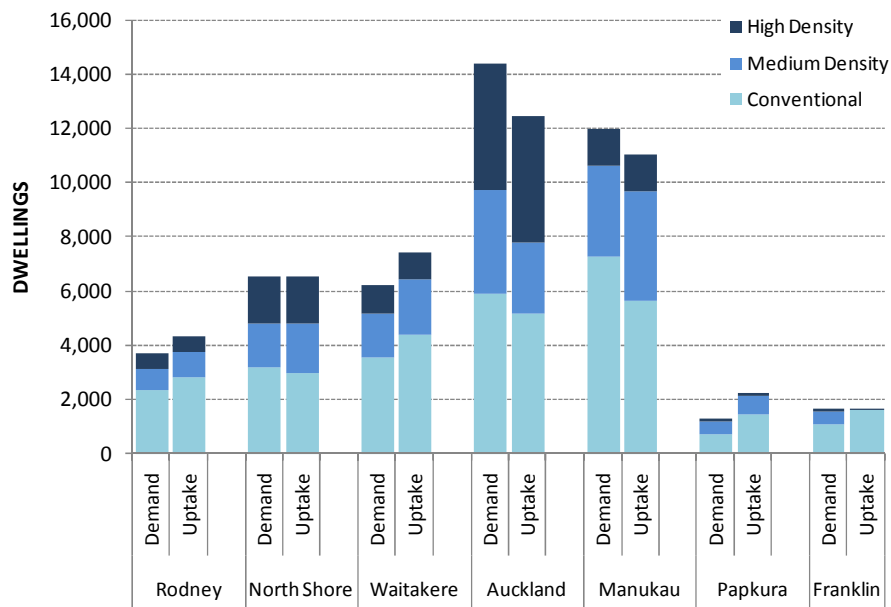
To illustrate the potential outcomes in the medium term, I have examined three time periods, to 2011-2016, 2016-2021 and 2021-2026, to indicate how location and housing preferences would need to change for Auckland to be able to accommodate projected growth.

Figure 7 shows the situation for each local authority area in Auckland in the 2011-2016 period. The left bar for each TA shows the underlying demand for additional households to reside in that TA,

⁶ Statistics NZ Medium Projection and High Projection 2008

expressed in terms of conventional, medium density and higher density housing. The right bar for each TA shows the expected outcome, taking into account the capacity in every TA for each housing type, and allowing for households to switch between TAs if their first preference (TA/housing type combination) is not met. Thus, TAs such as Auckland City have an uptake which is less than underlying demand, because of capacity constraints. Others, such as Rodney District, show an uptake which is greater than underlying demand, as they accommodate growth whose preferences could not be met in other locations.

FIGURE 7: AUCKLAND HOUSING DEMAND & UPTAKE 2011-2016

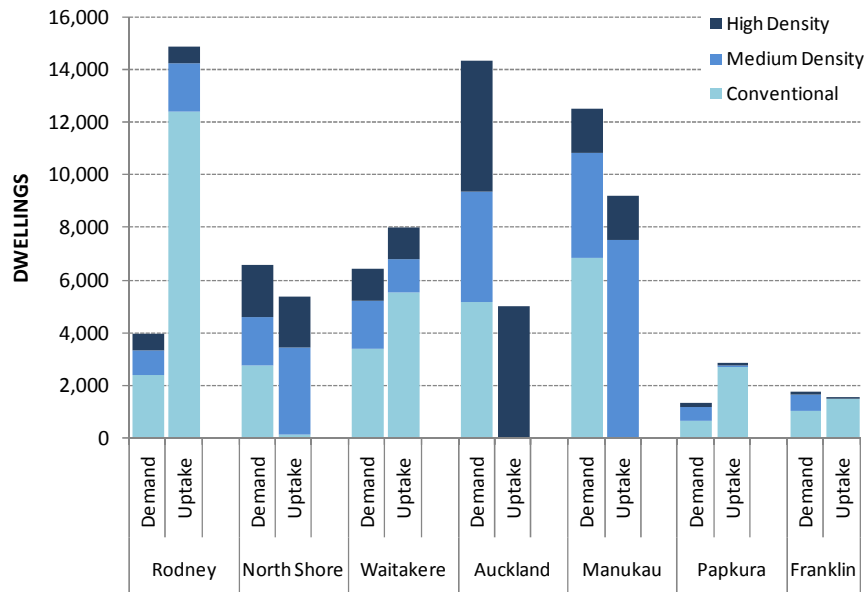


Source: DBH Adequacy of Auckland Region's Residential Land Supply, Table 5.5, p49

The main feature of Figure 7 is that the demand and uptake figures are reasonably close. This indicates that the underlying demand is reasonably well met, in terms of both TA location and housing type.

Figure 8 shows the demand and uptake situation for the 2016-2021 period. The pattern is quite different, because of supply constraints.

FIGURE 8: AUCKLAND HOUSING DEMAND & UPTAKE 2016-2021

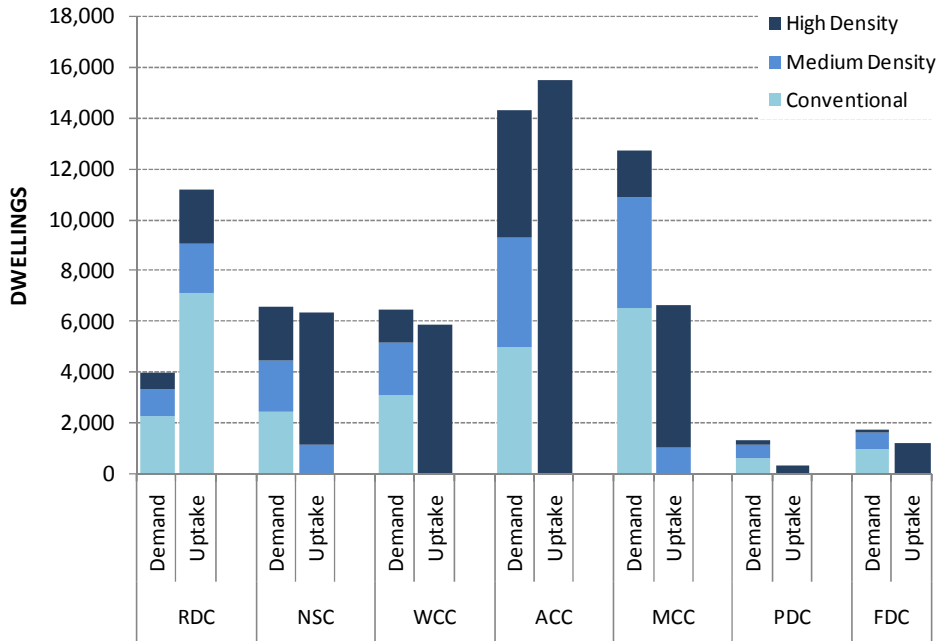


Source: DBH Adequacy of Auckland Region’s Residential Land Supply, Table 5.5, p49

In particular, the uptake is very much lower than underlying demand in Auckland City, as well as Manukau City and North Shore City. Auckland City accommodates the underlying demand for high density housing, but its demand for conventional and medium density housing is re-directed to other TAs which have remaining capacity for those housing types, notably Rodney District, but also Waitakere City, and Papakura and Franklin Districts. Quite simply, housing demand is unsatisfied, and demand is re-directed – assuming in this instance that people prefer to meet their preferences for housing type, above their preference for location.

Figure 9 shows the demand and uptake situation for the 2021-2026 period. The pattern is again quite different, and again because of supply constraints. However, there is less disparity between underlying demand and eventual uptake in each TA, because there is reduced opportunity to satisfy housing type preferences in another location. In this situation, the market prefers to satisfy its locational preference, and take up a less preferred housing type. The overall outcome is that the supply constraint imposes a significant shift in the uptake of housing types.

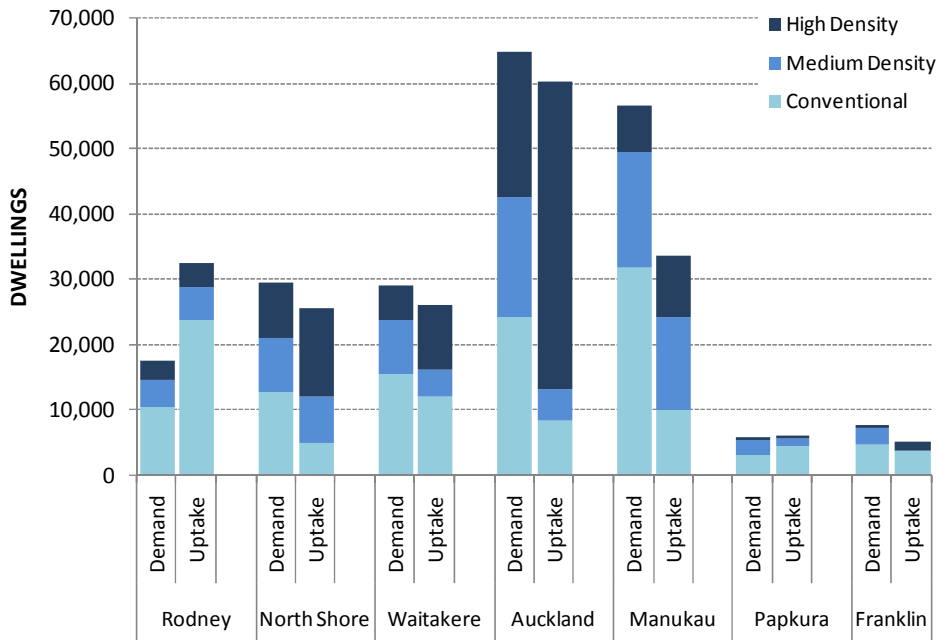
FIGURE 9: AUCKLAND HOUSING DEMAND & UPTAKE 2021-2026



Source: DBH Adequacy of Auckland Region's Residential Land Supply, Table 5.5, p49

Figure 10 shows the overall demand and uptake outcomes across the 2008-2031 period.

FIGURE 10: AUCKLAND HOUSING DEMAND & UPTAKE 2008-2031



Source: DBH Adequacy of Auckland Region's Residential Land Supply, Table 5.5, p49

While over time, the uptake for each TA area is reasonably in line with underlying demand, this is only achieved through a substantial shift in housing type, whether from change in actual preferences or simply unavailability of the preferred housing type in the region. Either way, the constrained supply situation is likely to bring about significant shifts in the nation’s largest housing market, in the medium term.

Issue #3b –Christchurch Situation –Parallels ?

In Christchurch, the Urban Development Strategy currently being implemented through PC1 to the RPS has a comparable focus on achieving a compact city, albeit with a still substantial share of growth in neighbouring towns, and the rural hinterland.

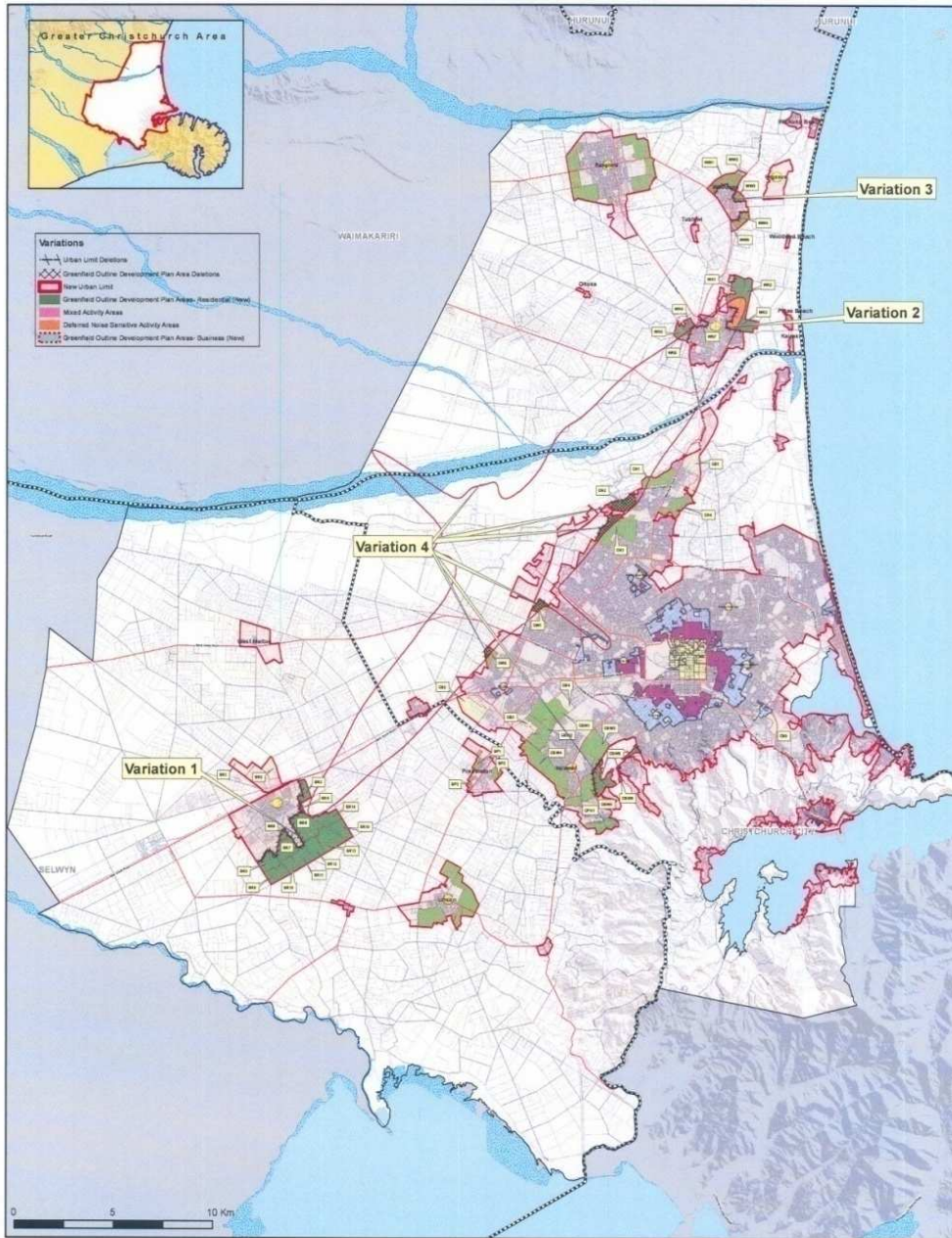
TABLE 4: CHRISTCHURCH UDS HOUSING GROWTH 2006-2041

LOCATION	2006	2016	2026	2041	Change	Change %	Share %
<i>Intensification Areas</i>							
City Centre	17,640	20,640	24,640	31,630	13,990	79%	26%
Rest of City	18,060	23,560	30,060	37,560	19,500	108%	37%
Ongoing Infill	93,620	93,620	93,620	93,620	-	0%	0%
Total Intensification	129,320	137,820	148,320	162,810	33,490	26%	63%
Christchurch City Greenfield	-	6,510	14,100	19,680	19,680	na	37%
Christchurch City TOTAL	129,320	144,330	162,420	182,490	53,170	41%	100%

Source: Environment Canterbury Proposed Plan Change 1 – Officer’s Report 2009, p17.

A feature of the UDS is that within Christchurch City, the major share of growth (63%) will be through intensification, in and around the central city (Table 4) with a lesser share (37%) through greenfield expansion. The UDS would see the population in the Christchurch city centre increase by nearly 80%, and that in the inner suburbs more than double by 2041. At the same time, greenfield expansion would be limited to some 19,680 dwellings. The proposed distribution of growth to 2041 is shown in the RPS Map (below), with the major shares of growth planned for the city centre (yellow on the map), and the surrounding inner suburbs (shaded light blue and maroon), together with the greenfield areas on the fringe (shaded green).

In Christchurch, as in Auckland, a key issue is the likely response of the housing market (development sector and consumers) to the growth strategy, particularly the degree to which market preferences may change to take up the capacity at the significantly higher densities implied around the central city, while the balance of the city is at conventional densities.



Canterbury Regional Policy Statement
 Proposed Change No.1
 MAP 1.
 Variations Nos. 1-4



Intensification Areas

All of these sites with these codes will be searched for Urban Intensification Plans under Method 2.4

Issue #4 – Public Sector Involvement – DCPs and Affordable Housing

Finally, I wish to touch briefly on two areas where local authorities are involved in the housing and residential property markets, through Development Contributions Policies (under the LGA) and Affordable Housing policies. Both areas have potential to affect housing supply, and especially the cost of new housing.

Development Contributions Policies.

Many councils have introduced Development Contribution Policies under the LGA, with the aim of ensuring that growth households (mainly new dwellings) contribute to the costs of infrastructure required to service them.

The plus side of development contributions is that good policies can act to share the funding load equitably across the community, and send accurate price signals to the residential property market, and other property markets. The negative side is that if development contributions policies are not well thought through and implemented accurately, then they can load a disproportionately high share of infrastructure costs on to growth, and effectively subsidise the existing residential estate, and distort the market. The general effect of this is to make new dwellings more expensive than they should be, and so act to dampen the supply side, and reduce affordability.

A number of the DC policies which I have examined I consider do act to load disproportionately high costs on to growth, and so tend to artificially dampen new housing supply. The most common faults are that DCPs fail to take account of the funding contribution made by growth ratepayers to the costs of infrastructure provided for existing ratepayers, notably renewals and expenditure to improve levels of service. As a consequence, growth ratepayers end up subsidising existing ratepayers. This shows up through examination of the total amounts which growth and existing ratepayers each contribute to the costs of infrastructure over time.

I note that the conventional wisdom in local authorities is that existing ratepayers subsidise growth, and the view that the cross-subsidy may be the other way is seldom popular, especially when it means that a more efficient outcome – in terms of economic and social wellbeing – would mean lower development contributions, and higher rates.

Nevertheless, a built-in distortion likely to penalise the new housing market is not a desirable situation.

Affordable Housing Policies

Finally, there is potential for local authorities to becoming directly involved in the housing market, through the introduction of policies to require provision of affordable housing, under the Affordable Housing: Enabling Territorial Authorities Act (2008). The Act enables direct, fundamental and long term involvement by territorial authorities in the New Zealand housing market. To date, there is considerable uncertainty as to the nature and level of territorial authority involvement under the Act, and whether affordability objectives are likely to be achieved through disparate policies at TA level often involving limited need for affordable housing.

I believe one of the key issues is the capability of local authorities to develop and implement efficient and equitable affordable housing policies, given TAs' lack of direct experience and often limited expertise in the overall operation of the housing market, and the commercial property development sector which would likely be required to contribute to affordable housing objectives. This does raise the prospect of poorly thought out policies having unintended and negative outcomes on the residential property market, especially where the costs to pay for affordable housing are loaded on to the construction and development sectors, and passed on to the customers of those sectors – notably, purchasers of new dwellings. That could act to dampen the supply side, both through artificially raising the cost of new dwellings, and discouraging construction and development sector activity.

In 2008, I presented evidence to the Queenstown Lakes District Council hearing on their proposed PC24 Affordable Housing, which was promulgated under the RMA, and is now is subject to appeal. I note that one of my key concerns is a basic premise underlying the plan change is that fully 35% of the total market growth in Queenstown over the next two decades will require affordable housing. I consider that a policy based on assuming that such a high share of the total market will require affordable housing is likely to place a very heavy impost on new property development, including the residential market and the commercial property sector.

The key point in mentioning these aspects is that the prospect of such distortions having a negative effect on housing supply should not be ignored.

Conclusions

In summary, a number of challenges face housing and land supply. These arise predominantly from the fundamental drivers in the market – especially the concentration of demand in Auckland and other major centres coupled with the underlying expectations of steady improvement in the quality of the living environment – and some threats of unintended market distortion at the TA policy level, rather than the slowdown and readjustment caused by the global economic dip.

Douglas Fairgray

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6. Tables 1,2 and Appendix; Figures 3 & 4. TA Household projections derived from:
 - i. Statistics NZ's "[Subnational Population Projections](#) 2006 (base)-2031" (released on 3 December 2007) and "[Area Unit Population Projections](#) 2006 (base)-2031" (released progressively in mid-2008);
 - ii. Average population per household (at CAU level) projections from population and household projections ("[Subnational Family and Household Projections](#) 2001 (base)-2026" (released in October 2005). 2005 is the last time household projections were published.
 - iii. Population per household from 2005-2026 projections applied to new 2006-base population projections to give household projections. This assumes pop/household follows the same patterns as from the 2005 SNZ data.
7. Figures 5-10, Table 3. Department of Building and Housing, *Adequacy of Auckland Region's Residential Land Supply*, Harrison Grierson and Market Economics, September 2008.
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APPENDIX 1

TABLE 1 : HOUSEHOLD GROWTH BY REGION 2010-2019

Region	Households 2010-2019	Share %	Cumulative Share %
Auckland Region	100,000	45.7%	45.7%
Canterbury Region	26,410	12.1%	57.8%
Wellington Region	19,820	9.1%	66.8%
Waikato Region	18,930	8.7%	75.5%
Bay of Plenty Region	15,540	7.1%	82.6%
Northland Region	7,990	3.7%	86.3%
Manawatu-Wanganui Region	7,010	3.2%	89.5%
Otago Region	6,900	3.2%	92.6%
Hawke's Bay Region	4,920	2.2%	94.9%
Taranaki Region	2,480	1.1%	96.0%
Tasman Region	2,300	1.1%	97.0%
Marlborough Region	1,940	0.9%	97.9%
Nelson Region	1,650	0.8%	98.7%
Gisborne Region	1,350	0.6%	99.3%
Southland Region	830	0.4%	99.7%
West Coast Region	660	0.3%	100.0%
TOTAL	218,730		

TABLE 2 : HOUSEHOLD GROWTH BY TERRITORIAL AUTHORITY 2010-2019

TA	Region	Households 2010-2019	Share %	Cumulative Share %
Auckland City	Auckland Region	30,940	14.1%	14.1%
Manukau City	Auckland Region	26,810	12.3%	26.4%
Christchurch City	Canterbury Region	16,110	7.4%	33.8%
North Shore City	Auckland Region	13,720	6.3%	40.1%
Waitakere City	Auckland Region	13,660	6.2%	46.3%
Wellington City	Wellington Region	9,850	4.5%	50.8%
Tauranga City	Bay of Plenty Region	9,190	4.2%	55.0%
Rodney District	Auckland Region	8,120	3.7%	58.7%
Hamilton City	Waikato Region	8,080	3.7%	62.4%
Franklin District	Auckland Region	5,070	2.3%	64.7%
Whangarei District	Northland Region	4,520	2.1%	66.8%
Waimakariri District	Canterbury Region	4,000	1.8%	68.6%
Palmerston North City	Manawatu-Wanganui Region	3,710	1.7%	70.3%
Selwyn District	Canterbury Region	3,570	1.6%	72.0%
Papakura District	Auckland Region	3,190	1.5%	73.4%
Kapiti Coast District	Wellington Region	3,180	1.5%	74.9%
Dunedin City	Otago Region	3,180	1.5%	76.3%
Hastings District	Hawke's Bay Region	3,130	1.4%	77.8%
Waikato District	Waikato Region	3,060	1.4%	79.2%
Western Bay of Plenty District	Bay of Plenty Region	2,980	1.4%	80.5%
Far North District	Northland Region	2,970	1.4%	81.9%
Lower Hutt City	Wellington Region	2,950	1.3%	83.2%
Queenstown-Lakes District	Otago Region	2,840	1.3%	84.5%
Tasman District	Tasman Region	2,300	1.1%	85.6%
Rotorua District	Bay of Plenty Region	2,250	1.0%	86.6%
New Plymouth District	Taranaki Region	2,250	1.0%	87.6%
Waipa District	Waikato Region	2,210	1.0%	88.6%
Marlborough District	Marlborough Region	1,940	0.9%	89.5%
Porirua City	Wellington Region	1,730	0.8%	90.3%
Nelson City	Nelson Region	1,650	0.8%	91.1%

Source: Statistics NZ Medium Population Projection (see Note 6)