

## **Our Space 2018-2048:**

### **Greater Christchurch Settlement Pattern Update**

*Whakahangai O Te Horapa Nohoanga*

**Christchurch City Council Officer's Supplementary Technical Advice in support of the  
Christchurch City Council submission #74 on Our Space 2018-2048 Draft for Consultation**

**15 February 2019**

# Supplementary technical advice in support of the Christchurch City Council's Submission (#74)

## Introduction

The following supplementary report has been prepared in support of the Christchurch City Council's submission on the draft Our Space 2018-2048, Draft for Consultation, released in November 2018 ('Our Space'). It also responds to those sections of the Greater Christchurch Partnership (GCP) Officers' Report<sup>1</sup>, and other third party submissions that specifically relate to the Council's submission points. The officers who have prepared this report are David Falconer (Senior Policy Planner Transport), Sarah-Jane Oliver (Principal Advisor Planning) and Adele Radburnd (Senior Policy Planner). A summary of the Council officers' qualifications and experience is included in **Appendix A**.

Also attached to this supplementary technical advice is the following:

- **Appendix B – Review of the rural demand and capacity calculations and impact on housing sufficiency**
- **Appendix C – Desktop illustrations of additional land requirements for greenfield development 10 households per hectare and if no intensification of Christchurch City's existing urban area occurred**
- **Appendix D – A comparison of required greenfield densities within New Zealand**
- **Appendix E - CCC Principle-Based response to submissions seeking an urban zoning**
- **Appendix F – Christchurch Business Land Demand Supplementary Paper – Hybrid Scenario**

The Council's submission raises a number of concerns with Our Space, which stem from a greater issue of whether it achieves full compliance with the NPS-UDC objectives and policies. Whilst some aspects of the Council's submission are considered to have been adequately considered and resolved by way of the GCP Officers' Report recommendations, there remains some points of contention on matters of housing and business sufficiency numbers, densities and sequencing. Each of these issues is evaluated in turn in this report.

## Housing sufficiency numbers to inform an appropriate planning and policy response

There remains a lack of clarity as to the scale of the sufficiency issue and more importantly whether there is any sufficiency issue to resolve. A fundamental step in preparing a Housing and Business Development Capacity Assessment is to identify any sufficiency issue such to then inform an appropriate response under a Future Development Strategy. From the facts presented in Our Space, together with the attached revision of rural demand and capacity (refer to **Appendix B**), there is unlikely to be a housing shortfall for any districts in the medium term, and the long term shortfall is significantly reduced.

As raised in the Council's submission, rural demand but not rural supply was included in the sufficiency figures for Waimakariri and Selwyn. The risk of including rural demand and at the same time not including rural supply, is that the housing shortfall figures for this part of the housing market are artificially inflated. Page 67 of the GCP Officers' Report recommends addressing the rural capacity

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<sup>1</sup> <http://greaterchristchurch.org.nz/assets/Uploads/Officers-Report-for-Our-Space.pdf>

issue by increasing the development capacity by historic rates of rural uptake. The GCP Officers' Report states that this is approximately 400-500 households for Waimakariri and 700 for Selwyn over the next 10 years. There is no data supplied showing how these uptake rates were calculated, and what historical years they cover. There is mention of uptake declining in recent years. Despite the recommendation to amend the numbers in Section 3.2, Table 3 of Our Space, the officer's report states "they are potentially unreliable", in particular because of lower demand for uptake over the past two to three years, and lack of certainty around rural capacity. The former point appears to be a suggestion that the historical data should not be given weight, because of recent emerging changes in uptake.

At the same time the officer's report is also recommending on page 66 to not adjust the sufficiency figures to reflect emerging data. The emerging data, as referred to in the Christchurch City Council submission, is showing there is a slowdown not only in the uptake of rural capacity, but also in other parts of the districts. A different approach is therefore being taken to the emerging data in Waimakariri/Selwyn, and in the City. If the recommendation to essentially disregard the recent emerging data for the City, then, for consistency in approach, the rates of rural uptake should also not be based on emerging data, but on the ten years prior to the 2017 capacity assessment, so it is comparable with the data used for capacity assessment. Analysis of Stats NZ population estimates show that rural uptake is much higher than suggested in the officer's report. Based on this data and data in the background information to the Waimakariri District Development Strategy, Population growth over ten years in rural areas is likely to be closer to 1,000 households in Waimakariri and 1,400 for Selwyn. Furthermore, as rural areas are outside the urban environment as defined by the NPS-UDC, it is not demand to be included in the sufficiency assessments under Policy PA1 of the NPS-UDC. So instead of increasing the development capacity by the rural uptake rates, the demand (i.e. housing targets) should be reduced by rural uptake rates, so the targets only include the percentage of projected demand in the urban environment. This gives a different set of figures since the housing targets already have the NPS-UDC buffers and medium-high projections factored into them.

In the absence of further information as to the justification for the approach in the GCP Officer's Report, a rural demand/capacity assessment has been prepared by Council officers and is provided in **Appendix B**. This assessment sets out a number of options as to how to address the rural capacity issue. Under all options, the shortfall is reduced from what is proposed in the officer's report. The response under Our Space therefore risks over-stating the sufficiency issue and potentially leading to an unnecessary planning and policy response (i.e. by providing for "further development capacity and enabling development" as required under NPS-UDC Policy PC3).

It is acknowledged that it is currently not easy to resolve the rural capacity issue since the Stats NZ population projections that are required to be used under the NPS-UDC are based on area units, some of which cover both urban and rural areas, and the boundaries of such don't always match the district plan zone boundaries. Thus accurately comparing projections and capacity is difficult in some locations. There is no one option that is perfect at present. The 2020 Capacity Assessment will be able to use the new Stats NZ SA2 boundaries, making it easier to distinguish between rural and urban housing demand. It then follows that greater clarity can be achieved as to the actual scale of the sufficiency issue. In the meantime, it is the Council officers' view that given this level of uncertainty and conflicting evidence base, that a change to the Canterbury Regional Policy Statement (CRPS) (to

enable the release of greenfield land for residential development) cannot be justified on the grounds it is needed to a medium term housing sufficiency issue.

Council officers question the recommended approach to report a range of sufficiency figures/scenarios, based upon a range of feasibility modelling results. Policy PB3 of the NPS-UDC requires that in reaching any conclusions on sufficiency, a number of factors are considered, not just results from feasibility modeling, which in themselves are based on many assumptions and have limitations. If identifying a range was to be pursued, it must be clearly articulated what the parameters are for each point (scenario) within the range, such not to have the range results misinterpreted or used inappropriately to justify a planning or policy response. It is also noted that the alternative scenario assessed by Market Economics Limited on housing feasibility within Selwyn and Waimakariri uses future costs, and if following the Ministry for the Environment (MfE) guidance should only be used as a sensitivity test <sup>(2)</sup>. Again, if a range approach is to be pursued, then differences between methodologies should at the very least be clearly articulated and ideally taken account of before conclusions on sufficiency are reached. Such considerations will undoubtedly be a focus of future capacity assessments.

Council officers consider it preferable and possible, that one figure or agreed position on sufficiency is reached, so as to achieve greater clarity of direction within Our Space. A range of possible positions on sufficiency, may infer there could be a range of required planning and policy responses. It is not clear within any report prepared by Selwyn or Waimakariri District Councils, as to whether all policy criteria under Policy PB3 have been fully considered. The GCP Officers' Report recommends (see Officers Recommendations 10.a) that "...the qualitative conclusions (in the current capacity assessment) and the updated quantitative/modelled findings (from the ME reports) should be shown as a range in section 3 and Table 3". It is important to recognise that the 'qualitative conclusions' that are provided are in fact representative of rates of take-up (PBd) and market responses (PBe). Both can be taken account of in reaching one single number on sufficiency.

As mentioned before the emerging data, as referred to in the Christchurch City Council submission, is showing that growth in Selwyn and Waimakariri has slowed, since the rapid growth in the immediate post-quake period. Also the rate of Intensification in Christchurch City has increased, meaning that based on recent trends, the capacity assessment is over projecting growth in Selwyn and Waimakariri and under projecting growth in Christchurch City. The emerging data is showing:

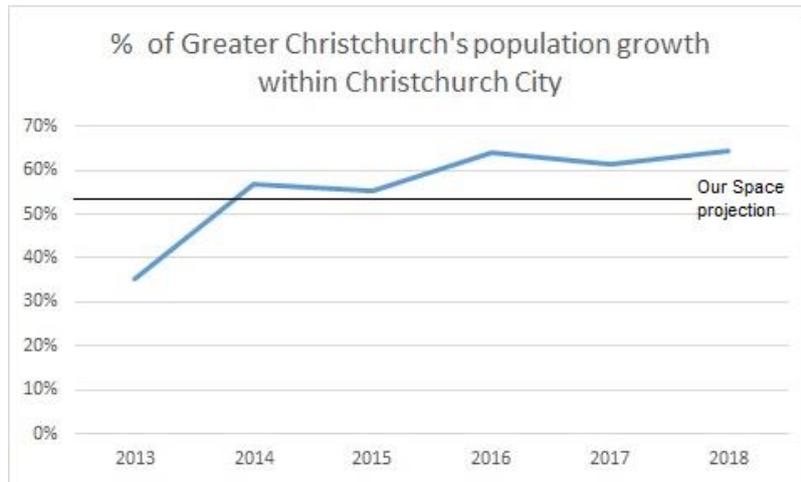
- a. That in 2018, based on the final population estimates from Stats NZ<sup>3</sup>, Waimakariri's growth was lower than the Stats NZ medium projection and whilst Selwyn's growth was above the medium projection, it was lower than the medium-high projection, which the housing targets in Our Space is based on. The final population estimates for 2018 also showed that in 2018 the residential population of the Central City grew at a faster rate than Selwyn or Waimakariri.
- b. Over 60% of Greater Christchurch's population growth is now within Christchurch City, higher than the 54% projection that the Our Space Medium Term housing target is based

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<sup>2</sup> <http://www.mfe.govt.nz/sites/default/files/media/Towns%20and%20cities/Feasibility-guidance-final.pdf>

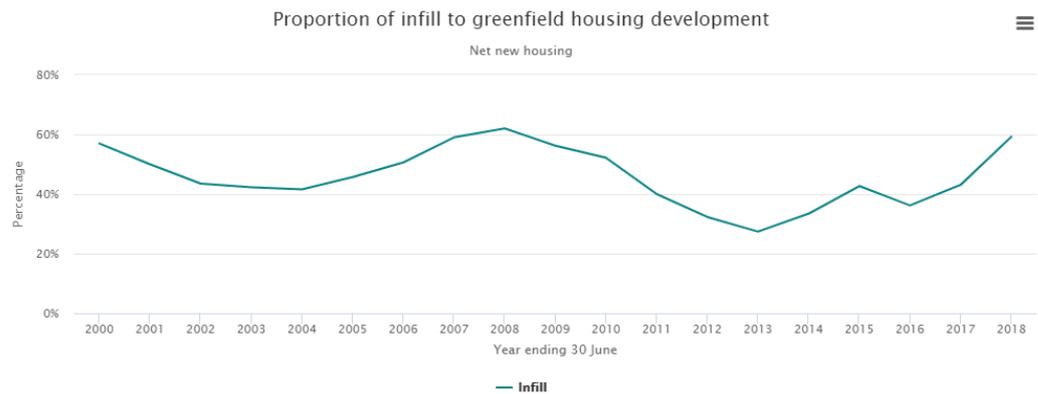
<sup>3</sup> <https://www.stats.govt.nz/information-releases/subnational-population-estimates-at-30-june-2018-final-nz-stat-tables>

on, and closer to the 70% target in the Greater Christchurch Urban Development Strategy (UDS).



Source: Stats NZ Population Estimates

- c. The majority of Christchurch City's growth is now through intensification, rather than Greenfield Development.



Source: Christchurch City Council, Building Consents Records

### Housing densities

Council officers support the GCP Officers' Report view that *"...a review of density requirements is most appropriately considered at a Greater Christchurch sub-regional level, and that Our Space and the CRPS should provide the appropriate strategic direction"*. That aside, the response provided under Our Space cannot be deemed to fully demonstrate that housing supply will be sufficient over the long term, given that no housing yields are stated as being required for greenfield areas within the Projected Infrastructure Boundary (PIB). Unless densities are committed to being increased within the proposed Future Development Areas or combined with increasing capacity within the existing urban areas of the townships, Our Space fails to demonstrate that there will be sufficient feasible development capacity in the long term. It is relying on other statutory processes to "demonstrate" compliance and therefore itself fails to do so. The MfE feedback on a draft version of the Our Space document questioned why densities had not be proposed for the new growth areas. No changes to directly respond to this feedback resulted, except a continuing position that the Selwyn and Waimakariri District Plan reviews would resolve appropriate densities.

Christchurch City Council Officers consider there to be a strong evidence base to support higher density yields for greenfield areas within the PIB, which would provide much greater certainty that additional greenfield land beyond the PIB is not required to meet long term housing demands. Conversely, officers from Waimakariri District Council do not support the proposed course of action recommended in the GCP officers report in regard to dealing with appropriate densities through a change process to the CRPS (i.e. changing policies at the sub-regional level), refer to pages 96 and 97 of the GCP Officers Report. The position is that it is more appropriate for densities to be determined at the District Plan level to enable the investigation and assessment of evidence in regard to infrastructure capacity and servicing and urban form and character. That changes should not be made until *“...prenotification consultation with the community through proposed structure planning processes that will take the best part of 2019 to complete.”*

Undertaking a structure planning exercise to determine average density requirements, does not provide an adequate level of certainty as to the outcome (i.e. necessary yield to meet demand). Further whilst community consultation is important in regard to matters of character and amenity, particularly at the interfaces between established and new urban areas, these can be appropriately dealt with through rules under a District Plan. Community consultation on the setting of housing yields as part of a package of urban growth policies (as currently provided under Chapter 6 of the CRPS) is considered more appropriately at the sub-regional level.

In respect of concern that a 15hh/ha yield may not be appropriate due to land suitability and/or infrastructure capacity, again Council officers are of the view that undertaking structure planning ahead of setting density yields is not the most appropriate approach. In Christchurch City greenfield areas, the 15 households/hectare (hh/ha) requirement has not in all cases been applied as a blanket requirement across the entirety of an Outline Development Plan (ODP) area. Whilst an average yield of 15hh/ha is the target, in accordance with the definition of “net density” under the CRPS<sup>4</sup>, through the structure planning and detailed subdivision design process, areas not suitable for residential development are removed from the calculation. The structure planning and subdivisions design process is also an appropriate stage to identify where higher or lower densities may be more appropriate but still achieving overall an average density of 15hh/ha. It is noted that rules within the Christchurch District Plan provide for the redistribution of densities across an ODP area.

In respect to infrastructure capacity, in the Christchurch City case, new infrastructure and/or upgrades to infrastructure were simply designed to meet the specified household yield, and higher densities supported as they result in a more efficient use of infrastructure. Greater lengths of infrastructure are

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<sup>4</sup> Net density is the number of lots or household units per hectare (whichever is the greater). The area (ha) includes land for: - Net density Residential purposes, including all open space and on-site parking associated with residential development; - Local roads and roading corridors, including pedestrian and cycle ways, but excluding State Highways and major arterial roads; - Local (neighbourhood) reserves. The area (ha) excludes land that is: - Stormwater retention and treatment areas; - Geotechnically constrained (such as land subject to subsidence or inundation); - Set aside to protect significant ecological, cultural, historic heritage or landscape values; - Set aside for esplanade reserves or access strips that form part of a larger regional or sub-regional reserve network; - For local community services and retail facilities, or for schools, hospitals or other district, regional or sub-regional facilities.

more expensive to maintain, and when the rate base is more dispersed, the return on capital investment is slower. Continuing to develop Selwyn and Waimakariri at low densities will be less efficient for public transport (thus encourage more car use and traffic congestion downstream). Table 1 below sets out the densities that should be provided to support public transport. Whilst prepared in 1989, Greater Wellington have made reference to it in their current public transport study. Intermediate buses rather than local buses service Selwyn and Waimakariri, therefore based on Table 1, greenfield areas should be aiming at achieving 17hh/ha, not 10hh/ha, to better support public transport.

Public Transport Service	Density threshold (dwellings/hectare)
Local bus (60 Minute frequency)	10
Intermediate bus (30 Minute frequency)	17
Frequent bus (10 Minute frequency)	37

Target densities for greenfield areas were set under the UDS (refer to Table 4, page 44), which then followed through into policies under Proposed Change 1 to the CRPS and (following the revocation of PC1) became operative through the directed changes to Chapter 5 of the CRPS under the Land Use Recovery Plan (LURP). From the outset of the UDS it was accepted by Christchurch City Council that urban densities had to increase within the existing urban area and greenfield areas (from the traditional 10hh/ha). This was because if residential areas continued to develop at these low densities, significant more rural land would be needed to house the growing population and the costs of infrastructure per dwelling, would be significantly greater.

To illustrate the importance of housing densities (and policies directing them) as a mechanism to achieve urban consolidation objectives, a desktop analysis has been undertaken to illustrate a hypothetical outcome if delivered through low density development. **Appendix C** illustrates two scenarios, first what additional rural land would have been required if the GPAs were only developed at 10hh/ha, this equating to an additional 200ha of rural land (i.e. approximately two additional ODP areas). Secondly, that if no intensification had been enabled through redevelopment of its existing urban area, then again how much additional rural land, this being 5,000ha, would have been required. Strategic documents such as Our Space are vitally important to set the policy direction today, such to ensure opportunities are not lost in delivering the most efficient and appropriate use of the land resource. Greenfield areas, being essentially a blank slate, if designed well, have great potential in meeting future needs.

Policy PA3 is also central to the matter of densities as it requires that “When making planning decisions that affect the way and the rate at which development capacity is provided, decision-makers shall provide for the social, economic, cultural and environmental wellbeing of people and communities and future generations, whilst having particular regard to: a) Providing for choices that will meet the needs of people and communities and future generations for a range of dwelling types and locations, working environments and places to locate businesses;...”. It is difficult to see how a minimum housing requirements of 10hh/ha will provide well enough for “choices that will meet the needs of future

<sup>5</sup> Source: Institute of Transportation Engineers (1989) *A Toolbox for Alleviating Traffic Congestion*. United States of America, Department of Transportation, Federal Highway Administration.

generations". Low density neighbourhoods are dominated by 3-4 bedroom houses, and whilst neighbourhoods at densities of 15hh/ha do not preclude 3-4 bedroom houses, they do require a greater range of housing types and complexes.

Greenfield development within Christchurch City has demonstrated that the 15hh/ha policy is achievable, with many of these developments being within 5-20mins drive from similar developments within Selwyn and Waimakariri. Developers have achieved the 15hh/ha because the CRPS and District Plan required it and the Council has been committed to enforcing this minimum standard. New subdivisions at 15hh/ha have resulted in a mix of lot sizes, however to date the 400-500m<sup>2</sup> lot size predominates. Whilst some land developers have cited difficulties in selling some housing products, there are also submissions from developers in Selwyn and Waimakariri stating that there is strong demand for smaller sections, which when provided for as part of a mix of lot sizes, (in the mix) can easily achieve densities of 15hh/ha.

Infinity Investment Group (refer to Paragraph 3.16, page 4 of Submission #32) state that *"Sections that are sized between 350-500m<sup>2</sup> seems to be the most popular section size. I believe this is mainly driven by affordability."* Further, Lincoln Developments Ltd (refer to page 8, Submission #69) state that *"the experience at Flemington is that there is strong demand for small lot medium density lots in the 300-500m<sup>2</sup> size range which can accommodate single storey stand alone 2-3 bedroom houses with double garage."* Sections within this size range are sufficient to provide density at 15 hh/ha, and as such this suggests that there is market demand for, or at least not the market resistance against, 15 hh/ha greenfield developments within Selwyn and Waimakariri.

Policy PC4 of the NPS-UDC it requires that *"A local authority shall consider all practicable options available to it to provide sufficient development capacity and enable development to meet demand in the short, medium and long term, including:*

- d. Changes to plans and regional policy statements, including to the zoning, objectives, policies, rules and overlays that apply in both existing urban environments and greenfield areas;*
- e. Integrated and coordinated consenting processes that facilitate development; and*
- f. Statutory tools and other methods available under other legislation."*

Increasing greenfield housing densities is a practicable option to demonstrate sufficiency within the PIB. The officer's report on page 94 states that *"there is not currently a sufficiency robust evidence based to demonstrate that a higher minimum density requirements is deliverable, or appropriate based on an associated assessment of costs and benefits"*. However under Policy PC4 the onus is on the local authorities to provide evidence on why densities can't be increased to provide sufficient development capacity. No evidence has been provided why densities can't be increased. There is also no assessment in accordance with Policy PC4 of *all practicable options available to it to provide sufficient development capacity and enable development* .Our Space proposes to increase development capacity by providing future development areas. To date there has been no evidence produced showing that providing future development areas is the most appropriate practicable option and more appropriate than increasing densities. The majority of submitters responding to question1

did not support this approach of including additional greenfield land around Rolleston, Rangiora and Kaiapoi<sup>6</sup>. Without such an assessment there is a risk that Our Space is not compliant with Policy PC4.

In summary, Council officers are of the view that on balance, providing for more development capacity through increasing urban densities should be a commitment agreed at the sub-regional level (preferably within Our Space but most certainly within the CRPS) as:

- It will ensure the rate of land conversion from rural to urban use will be slower and pressure on the boundaries of the PIB can be contained for longer.
- The policy framework set under Chapter 6 of the CRPS provides an appropriate pathway for determining what land within a greenfield (outline development plan) area is more or less appropriate for higher densities, but overall the 15hh/ha average density requirement is neither onerous or inappropriate for greenfield areas. Matters of town character and amenity can be adequately addressed through the tailoring of District Plan subdivision and urban design rules.
- It demonstrates that land within the PIB will be sufficient to meet housing demand in the long term, should for example densities be increased for greenfield areas in Selwyn and Waimakariri from an average yield of 10hh/ha to 15hh/ha.
- Policies directing 15hh/ha average yields for all Greater Christchurch greenfield areas will achieve consistency within the sub-region, and is consistent with required yields across the country (see **Appendix D**).
- It will ensure opportunities are not lost to achieve the most efficient use of land and house as many people possible close to existing and planned services and places of education and employment.
- Avoid land developers unwillingness to deliver what is required to achieve a consolidated urban form.

## Sequencing

There are three policies within the NPS-UDC of relevance to the matter of sequencing. Policy PC13 which requires that the future development strategy “...*identify the broad location, timing and sequencing of future development capacity over the long term in future urban environments and intensification opportunities within existing urban environments*”, must also be given effect to alongside other policies such as policies (our emphasis underlined):

- PA2 requiring that “...Local authorities shall satisfy themselves that other infrastructure required to support urban development are likely to be available”
- PA3: When making planning decisions that affect the way and the rate at which development capacity is provided, decision-makers shall provide for the social, economic, cultural and environmental wellbeing of people and communities and future generations, whilst having particular regard to: a) Providing for choices that will meet the needs of people and communities and future generations for a range of dwelling types and locations, working environments and places to locate businesses; b) Promoting the efficient use of urban land and development infrastructure and other infrastructure; and c) Limiting as much as possible adverse impacts on the competitive operation of land and development markets.; and

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<sup>6</sup> Responses to Question 1, appendix E of the GCP Officer’s report.

- PA4: When considering the effects of urban development, decision-makers shall take into account: a) The benefits that urban development will provide with respect to the ability for people and communities and future generations to provide for their social, economic, cultural and environmental wellbeing; and b) The benefits and costs of urban development at a national, inter-regional, regional and district scale, as well as the local effects.

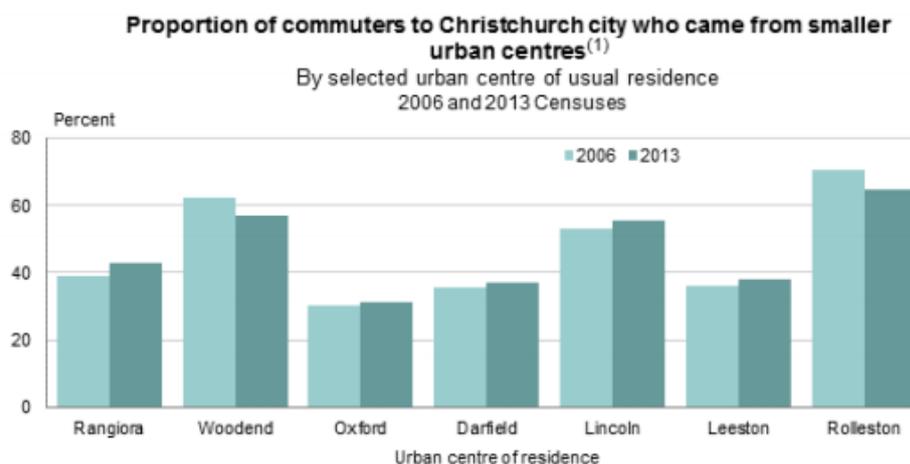
Our Space does not adequately recognise the need to manage the number of new houses enabled within the PIB post 2028. Importantly, Policy PA1 of the NPS-UDC requires that there is sufficient infrastructure to service the development capacity. Our Space has not provided evidence that there is sufficient infrastructure to service the development capacity that complies with Policy PA1. Policies on sequencing are an effective mechanism to manage adverse effects within the transport network (specifically downstream effects) and achieve urban consolidation objectives. Council officers wish to clarify that they have never raised the sequencing of land within the PIB to be a matter of issue, and agree it is a matter for Long Term Plans and the District Plans to direct the staging of land development within a township. There is however considered a need to manage the total number of new homes that are enabled in the neighbouring districts as a means to address post 2028 transport effects. Or alternatively, until such time as transport infrastructure and initiatives are operational and effective in achieving a significant shift in modal share to active and public transport use. It is also the preference of Council officers that the transport impacts should be modelled through the new transport model and reported back to the Panel, before the Hearings panel makes their decision on sequencing directions within Our Space.

Population growth between the 2006-2013 census show a significant increase in the number of people commuting from Selwyn and Waimakariri into Christchurch City (as shown by Table 2 for Stats NZ's Commuting patterns in greater Christchurch: Trends from the Census of Population and Dwellings 2006 and 2013 –see below). For most townships, this growth did not result in the townships being more self-sufficient (as shown by Figure 7 from the same Stats NZ report below). No evidence has been provided to date, that indicates further population growth will result in more self-sufficient townships and less commuting to Christchurch. Christchurch City will continue to be a primary destination for employment, education, health and commercial services. If Christchurch City is to function efficiently, it must be assured the transport system is not compromised by levels of growth in locations that are not supported by the necessary transport infrastructure and services, specifically those that are effective in reducing the reliance on single occupancy motor vehicles (the primary cause of traffic congestion and associated costs). This is not considered to be an unjustified position given the many alternative housing choices enabled within Christchurch City.

**Table 2**  
**Change in number of people who commuted to Christchurch city from selected**  
**Canterbury urban and rural areas**  
 2006 and 2013 Censuses

Area of usual residence	Number who gave workplace address in Christchurch city		Percentage change 2006–13
	2006	2013	
<b>Urban area</b>			
Amberley	102	147	44.1
Woodend	732	720	-1.6
Rangiora	1,884	2,727	44.7
Oxford	180	231	28.3
Darfield	249	321	28.9
Lincoln	588	915	55.6
Leeston	204	255	25.0
Rolleston	1,650	3,114	88.7
<b>Rural centres</b>			
Waikuku	189	234	23.8
Pegasus	9	354	3,833.3
<b>Total other rural areas</b>	<b>6,336</b>	<b>9,078</b>	<b>43.3</b>
<p><b>Note:</b> Urban areas are statistically defined areas and are designed to identify concentrated urban settlements, without the distortion of administrative boundaries.</p> <p>This data has been randomly rounded to protect confidentiality. Individual figures may not add up to totals, and values for the same data may vary in different tables.</p> <p><b>Source:</b> Statistics New Zealand</p>			

**Figure 7**



1. Some workplace addresses could not be coded to a territorial authority.  
 Source: Statistics New Zealand

Council officers however do not consider it appropriate to constrain new housing created through redeveloping existing urban areas within townships, as such new housing would achieve urban consolidation objectives and support existing services and business activities. It is recognised that greenfield land areas within Christchurch City are not constrained by sequencing, however as are not

as reliant on the western and northern corridors for access, and are well serviced by alternative modes of transport.

Transport effects are not the only reason why Christchurch City Council is seeking sequencing. Effects on redevelopment of the Central City is also of concern. The 2018 Jones Lang LaSalle (JLL) report on Christchurch Central City Residential Development prepared for the Property Council makes it clear that, whilst it is not the biggest factor, competition from Selwyn and Waimakariri District is a barrier to Central City residential development. This is evidenced by the following statements in the report:

- Page 4 “Competition from the Waimakariri and Selwyn districts” is a moderate barrier to residential development in Christchurch Central.
- Page 9 “Like suburban residential, competition from the Waimakariri and Selwyn District was also considered a barrier to development in the CBD, although to a lesser extent”.
- Page 12 “In Christchurch, the CBD residential market competes on price with offerings in the suburbs and the Waimakariri and Selwyn districts. While these markets may not directly compete for end users, there will always be some cross over when people are considering similarly priced options”.
- Page 12 “In Christchurch, it is possible to buy a relatively affordable house close to the CBD with a limited commute time. Even in the outlying suburbs, it’s relatively easy to access the CBD. Motorway upgrades are also making it easier to commute from the Waimakariri and Selwyn districts”
- Page 16 – A solution is to “Strictly limit the consenting of high density residential in greenfield subdivisions”.

In summary, setting the targets as maximums is the most clear and simplest policy approach and one that has been an accepted method in past policies (i.e. under Proposed Change 1 to the CRPS). The alternative is to create a policy whereby the transport interventions are stated as being required before any further release of land is enabled. District Plans have contained provisions requiring the construction and operation of a motorway before any land is rezoned/released. As the focus of the Regional Land Transport Plan is no longer on building and expansions of motorways within the Greater Christchurch area, rather a reliance on rapid transit corridors and a modal shift, developing a similar policy may be difficult and complex.

## **Business**

Modelling of business demand was undertaken for the Capacity Assessment using a number of inputs, including population and household growth. The Assessment used the Stats NZ population growth scenarios set out in Figure 7 and Table 1 of Our Space<sup>7</sup>.

The recommended response in Our Space is guided by the vision and strategic goals of the UDS, in particular the principle of consolidating urban development in and around Christchurch and the larger towns in Selwyn and Waimakariri, with the City taking on an increasingly larger share of household growth over time. Our Space recommends that Christchurch City take 65% of Greater Christchurch’s household growth through to 2048 compared with the 54% forecast by the Stats NZ projections

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<sup>7</sup> I.e. the medium growth rate for Christchurch City and medium-high growth rates for SDC and WDC.

(noting though that both scenarios provide for less growth in the City than the 71% advocated in the UDS). Increasing population and household growth in the City, in turn increases demand for jobs.

The implications for Our Space, and the basis of the Council submission point on business sufficiency, is that the business sufficiency figures in Our Space have not been updated to account for this re-apportionment of household growth from 54% to 65%. This is necessary to ensure that the evidence base is robust and that the relationship between residential and employment demands are reconciled.

CCC has updated its Business Land Capacity Assessment to account for the revised population and household forecasts and the results are set out in **Appendix F**. As expected, this results in greater business land requirements for the City over time, particularly in the central quadrant.

The assessment concludes that whilst the Hybrid increases employment and floorspace demands in the City:

- The City still has a significant oversupply of industrial land to accommodate the growth;
- Most of the growth is directed to the central quadrant where capacity exists to absorb the growth but with the need to transfer some land uses from industrial to commercial over time;
- That therefore the overall conclusions of the original report remain relevant.

The impact is not so significant that it alters the strategic direction or the outcomes of the original capacity assessment because sufficient older industrial stock in and around the central city is available to accommodate the transfer from industrial to commercial use over time. The main implication is that this transfer to commercial maybe slightly slower than what was likely to occur under the original (projections-led) scenario. Property Economics ultimately concludes that the City still has sufficient land supply to meet both commercial and industrial land needs.

As a result of the update, the CCC figures in Table 4 of *Our Space* can be updated to read:

	Industrial Land Sufficiency		Commercial Land Sufficiency	
	Medium Term	Medium and Long Term	Medium Term	Medium and Long Term
Christchurch City	+666	+202	+30	-135

### Response to submissions seeking re-zoning

A principle-based response from Council officer's to submissions seeking an urban zoning is providing in Appendix E.

## **Appendix A – Authors' Experience**

David Falconer is a Senior Transport Policy Planner at Christchurch City Council and has worked at Christchurch City Council for the past decade. Prior to this he worked for local authorities and planning consultancies in Southland and Tauranga. David has a Resource Studies degree with Honours, majoring in Environmental Policy and Planning from Lincoln University and is a full member of the New Zealand Planning Institute.

Sarah Oliver is a Principal Advisor (Planning) at the Christchurch City Council, having worked at Council since 2009. Sarah holds a Bachelor of Commerce and Management and a Post Graduate Diploma of Resource Studies from Lincoln University. Sarah has 20 years of planning and policy experience, working as a private planning consultant, local government, and with the Canterbury Earthquake Recovery Authority.

Adele Radburn is Senior Policy Planner at Christchurch City Council, having worked at CCC since April 2013. Adele holds a Bachelor of Arts (Geography) and a Master of Regional Resource Planning (with credit) from the University of Otago and is an Intermediate member of the New Zealand Planning Institute. Her 15 years' planning experience was gained in both New Zealand and the United Kingdom with roles in local government (planning policy) and private planning consultancies.

## Appendix B – Review of the rural demand and capacity calculations and impact on housing sufficiency

There are a number of alternative options for addressing rural demand and capacity, from what was presented in the officer's report

- a) **Calculate rural/urban split of each area unit** - Under this option the current % of rural and urban houses in each area unit is set by calculating the number of houses within urban and rural zones. This rural/urban split % is then applied to the population projections for each area unit to calculate the possible projection for the urban areas. This would produce housing sufficiency results as follows:

Sufficiency	Medium Term	Long Term
Selwyn	600	-3300
Waimakariri	300	-4200
Christchurch	39700	12300
TOTAL	40600	4800

- b) **Using the figures in the housing demand in greater Christchurch research report by Ian Mitchell of Livingston and Associates Ltd** – Follow the approach within the Livingston and Associates Ltd report<sup>8</sup> where area units in Selwyn and Waimakariri have been identified into urban and rural areas, as follows (see pages 102-103 of the report):

Selwyn Rural	Selwyn - Settlements	Waimakariri UDS rural	Waimakariri UDS settlements
Kirwee	Burnham Military Camp	Woodend Beach	Lehmans
Springston	Lincoln	Camside	Silverstream
Trents -Ladbrooks	Rolleston North West	Pines -Kairaki Beach	Rangiora East
West Melton	Rolleston Central	Waikuku	Southbrook
	Rolleston North East	Fernside	Kingsbury
	Rolleston South West	Coldstream	Rangiora North
	Prebbleton	Tuahiwi	Woodend
	Taitapu	Mandeville	Rangiora West
	Rolleston South East	Ohoka	Pegasus
		Clarkville	Rangiora Central
			Ravenswood
			Woodend West
			Kaiapoi South
			Mansfield
			Courtenay
			Kaiapoi East
			Kaiapoi North West
			Kaiapoi North East
			Kaiapoi West

<sup>8</sup> <http://greaterchristchurch.org.nz/assets/Documents/greaterchristchurch/Our-Space-consultation/Greater-Christchurch-Housing-Capacity-Assessment-reports-1-4.pdf>

Using only the population projections for the urban area units, results in the following sufficiency figures using the updated feasibility findings (as per page 106 of the officer's report):

Sufficiency	Medium Term	Long Term
Selwyn	1500	-2600
Waimakariri	0	-4600
Christchurch	38800	10900
TOTAL	40300	3700

- c) **Same as the option above under point b, but including West Melton as 60% urban as per recent uptake rates** - Under option b the West Melton Area unit is classified as rural because it covers a large rural areas, but as it also covers the West Melton Township the area unit is classified as 60% urban based on recent uptake rates for Selwyn (i.e. as 60% of the recent building consents in the area unit have been for new housing within the township). This results in the following sufficiency figures:

Sufficiency	Medium Term	Long Term
Selwyn	100	-4300
Waimakariri	0	-4900
Christchurch	38800	9100
TOTAL	38900	-100

- d) **Based on Growth rates** - Options a-c (above) are largely based on the current split of rural and urban areas and projecting that forward. Option d is based on considering uptake. The average population growth over the past ten years for the rural area unit (as per option b) has been calculated, based on the Stats NZ population estimates. This figure is used to calculate the % of the total growth in each district that has occurred in rural area. The population projections for the districts is then reduced by this %, resulting in the following figures.

Sufficiency	Medium Term	Long Term
Selwyn	200	-3700
Waimakariri	100	-4400
Christchurch	39700	12300
TOTAL	40000	4200

- e) **Based on the figures in the Waimakariri District Development Strategy** - Figures from the Waimakariri District Development Strategy (DDS) (see the graph below from page 9 of the DDS) show that 29% of growth over the past 20 years (1996-2016) has been in rural areas. The background population paper<sup>9</sup> states that there has been an average of 165 consents per year in rural areas. Whilst this covers the whole of Waimakariri District, around half of the rural growth has occurred within the Greater Christchurch area. However the GCP officer's report is stating there was only 40 consents per year, approximately half of the number the DDS data indicates. The DDS also states there is another 23 consents in rural residential areas outside the townships. Some of these rural residential areas are not historic lifestyle living/rural residential zones which are within the rural environment and the capacity assessment specifically excluded them:

<sup>9</sup> [https://www.waimakariri.govt.nz/\\_\\_data/assets/pdf\\_file/0015/33702/Population-Waimakariri-2048.pdf](https://www.waimakariri.govt.nz/__data/assets/pdf_file/0015/33702/Population-Waimakariri-2048.pdf)

“This evaluation excludes rural zones and Existing Development Areas/Small Settlements under both district plans that are historic lifestyle living/residential zones which are in most cases located within the rural environment in isolation of townships.” Page 141 of the housing capacity assessment.

In total there could be over 100 consents a year outside the urban areas in the Greater Christchurch portion of Waimakariri, far more than is stated in the GCP officer’s report.

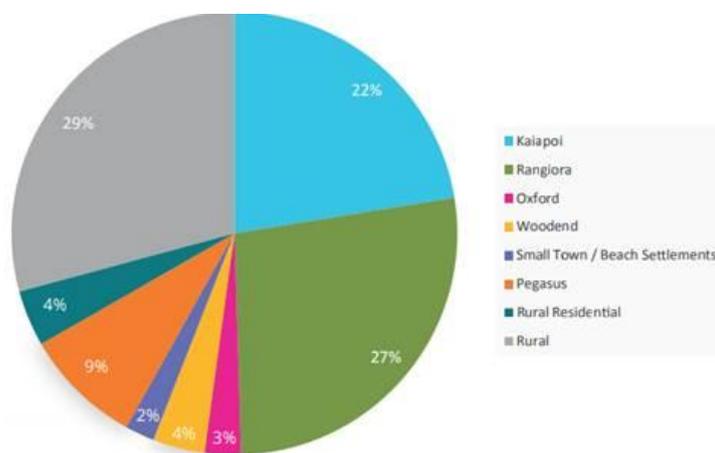


Figure 3. Proportion of District growth by area

f) **Using the population estimates for the new SA2 (statistical area 2) Area Unit classification**

In late 2018 Stats NZ released the final population estimates for the new SA2 (statistical area 2) Area Unit classification <https://www.stats.govt.nz/information-releases/subnational-population-estimates-at-30-june-2018-final-nz-stat-tables>. These figures can be used to distinguish between the percentage of population growth that has occurred in urban and rural areas. However the Ohoka/Mandeville Rural Residential areas are not included in the SA2 urban areas, so an adjustment has been made to include those areas as urban, based on uptake figures of rural residential in the DDS background population paper and the potential in the rural residential development plan for these areas. This results in the following figures:

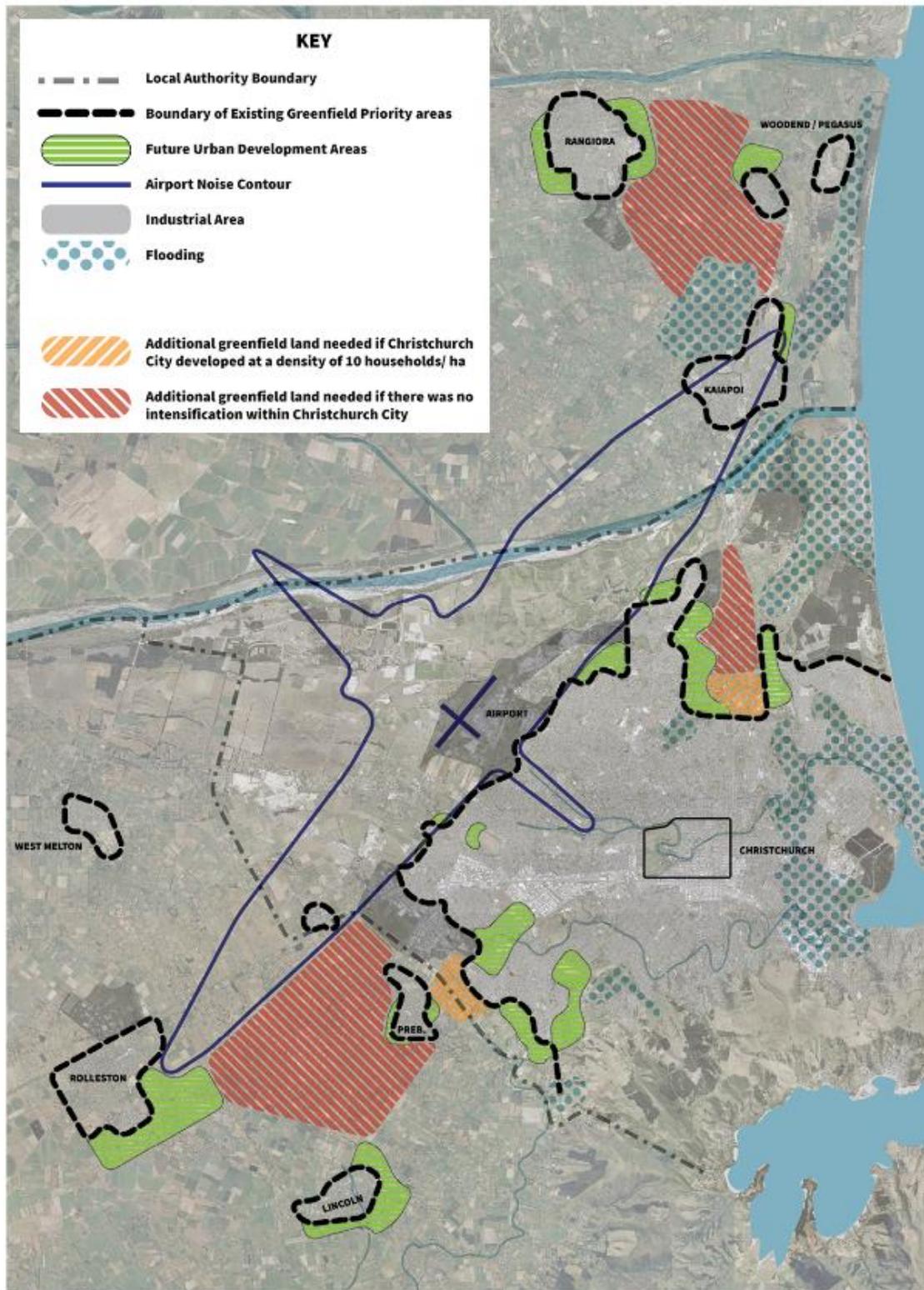
Year	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	Average 2006-16
Waimakariri - % of total population growth that occurred in rural areas	27%	27%	51%	34%	62%	24%	25%	15%	24%	19%	6%	10%	31%
Additional number of rural households	63	59	102	52	225	44	113	98	144	75	63	59	97
Selwyn - % of total population growth that occurred in rural areas	22%	25%	29%	31%	32%	10%	34%	10%	21%	17%	8%	11%	23%
Additional number of rural households	114	114	128	131	176	55	200	76	228	176	114	114	140

g) A 2006-16 average has been used, as that is the ten years prior to the 2017 Capacity Assessment, which is a comparable period to what was used for the other figures in the capacity assessment.

Using the 2006-16 average as the uptake rate to reduce the housing targets by, produces the possible following sufficiency figures (the ranges are based in the existing and updated feasibility findings for Selwyn and Waimakariri as shown on page 106 of the officer's report):

	Housing Development Capacity	Housing Target	Sufficiency of Housing Development Capacity	
			Medium Term (2018 – 2028)	Long Term (2018 – 2048)
<b>Christchurch City</b>	59,950	48,800	+ 39,700	+ 11,200
<b>Selwyn</b>	9,700 to 9,900	13,900	+3,100 to -500	-4,200 to -4,700
<b>Waimakariri</b>	4,400 to 6,600	10,600	+400 to -300	-4,500 to -6,400
<b>Greater Christchurch</b>	73,950 to 76,450	73,200	+39,600 to +42,500	+2,000 to +600

**Appendix C – Desktop illustrations of additional land requirements for greenfield development 10 households per hectare and if no intensification of Christchurch City’s existing urban area occurred**



## Appendix D – A comparison of required greenfield densities within New Zealand

Council	Objective/Policy/Provisions	Density	Comment
Tauranga City Council	<p><b>12A.1.1.2 Policy – Target Yields in Urban Growth Areas</b></p> <p>By ensuring that a target average nett yield of 15 dwellings per hectare for subdivision within areas identified on the Urban Growth Plans included in the Plan Maps (Part B) is achieved through:</p> <p>a) A baseline minimum nett yield requirement of 12 dwellings per hectare applied to all subdivision that is progressively increased for each specified time period in accordance with Rule 12B.3.1.2 – Development Intensity and Scale in Urban Growth Areas;</p>	Average net yield of 15 dwellings/ha	Tauranga City Council, along with Western Bay of Plenty District Council and Bay of Plenty Regional Council has produced a future development strategy – SmartGrowth. SmartGrowth states its ‘key theme’ is to achieve as much growth as possible within the existing area of Tauranga City, principally through supporting higher housing densities around urban centres.
Waikato Sub-Region (Hamilton City, Waipa and Waikato Districts)	<p>Policy 6.15 Density targets for Future Proof (Waikato Growth Strategy) area</p> <ul style="list-style-type: none"> <li>- Hamilton Greenfield (Rototuna, Rotokauri, Ruakura Peacocke) - 16 households per hectare</li> <li>- Greenfield development in Cambridge, Te Awamutu/Kihikihi, Huntly, Ngaruawahia, Raglan/Whaingaroa and Te Kauwhata 12 – 15 households per hectare</li> </ul>	Hamilton 16hh/ha Satellite towns 12-15hh/ha	The sub-region’s future development strategy, Future Proof, states it is based on the ‘core assumption’ that increased residential densities are an essential part of managing urban development.

## Appendix E - CCC principle-based response to submissions seeking an urban zoning

### Residential

As a general principle, CCC does not support submissions seeking inclusion of additional land as ‘future development areas’ in Our Space, on the basis that Greater Christchurch has sufficient land to meet 30 years demands and therefore we do not need to provide a response through the FDS/Our Space to meet our obligations under the NPS-UDC.

However, there are some potential rezoning submissions that we do consider are merited in planning terms and therefore CCC officers do support enabling their rezoning through a discrete change to the CRPS. These landholdings:

- Are small-scale;
- Have no servicing constraints;
- Are considered feasible to develop by the landowners; and
- Support the urban consolidation (and other key) objectives of the CRPS.

In some cases rezoning of land may have other planning benefits (e.g. would enable a better outcome for an ODP associated with an existing GPA) or are recommended on the basis of correcting a past error or injustice.

There are other submissions seeking changes to enable urban (residential) rezoning that are not supported by Council for one or more of the following reasons. The landholdings:

- Are large scale;
- Are not contiguous to the existing urban area therefore do not support urban consolidation objectives;
- Have servicing constraints and / or are located beyond the Projected Infrastructure Boundary
- Require more planning analysis and investigation to determine their appropriateness for rezoning, including consideration of the wider context; and/or
- Are located on land where development is inappropriate e.g. Area of Outstanding Natural Landscape.

<b>Additional land supported for urban (residential) rezoning by CCC</b>	<b>Additional land not supported for urban (residential) rezoning by CCC</b>
050 - Grant Poultney (SUPPORT IN PART)	006 - Robert and Margaret Spark and Richard and Dawn Spark, Spark Bros Ltd
057 - B. Welsh, S. McArthur, T. Kain (SUPPORT IN PART)	015 – Cashmere Park Trust
059 - Ernst Frei (SUPPORT IN PART)	021 – Lionel Green
	022 – Sharon Jones
	023 - Ivan Robertson, Lindsay and Judith Blackmore and Malcolm Main
	024 - CF Holdings Ltd - South Rolleston
	025 - Barry Gallagher and David Tipple
	026 - Ellis Darussette Ltd
	027 - Victoria Foxton

	030 - Oderings Nurseries Limited
	033 - Majority Beneficiaries of the Bellgrove Family Trust; Gary Inch, Devin Inch, Sharlene Inch and Courtney Inch
	038 - Cathedral City Development Ltd
	043 - Red Spur Limited
	051 - Suburban Estates Ltd, Sovereign Palms Ltd and Doncaster Developments Ltd
	053 - Cockburn Family Trust
	056 - Graeme Alan and Joy Yvonne Mc Vicar
	060 - GFR Rhodes Estate & Larson Group
	065 - Scarborough Hill Properties Ltd and Directors/Shareholders Ruth Kendall & Ewan Carr
	069 - Lincoln Developments Ltd
	072 - Kevin and Bonnie Williams
	076 - Carter Group Limited
028 - M. Springer (NEUTRAL)	

### **Business - Industrial**

CCC officers do not support any submissions seeking identification in *Our Space* of additional land as a Future Urban Area (for Industrial Business). This is principally on the basis that we have a significant over-supply of industrial land, more than sufficient to meet 30 year demands and therefore no industrial land supply issue to resolve through this process.

Some submissions seeking rezoning to enable industrial activity also have other issues which count against their merits for rezoning. This includes:

- Servicing constraints (traffic, water supply and wastewater in particular)
- Land not being contiguous to the urban area / existing GPAs and therefore does not support urban consolidation objectives of the CRPS and District Plan.
- Further planning investigation or analysis (including modelling) may be needed to assess the appropriateness of land for rezoning.

### **Business - Commercial**

In addition, there were two submissions seeking provisions / proposals in *Our Space* that would enable subsequent changes to the CRPS and District Plan to provide a commercial zoning. Both of these submissions relate to sites in the north-western part of the City.

CCC officers do not support these on the basis that:

- any forecast commercial land shortfall is not anticipated to eventuate until the long term (in the areas where additional commercial provision is sought, e.g. the NW)
- Limitations with the methodology for the BCA mean that these shortfalls are overstated and may not eventuate.

- There are other methods / planning responses available to meet more localised demands in the northern quadrant that will be explored as part of the next capacity assessment and district plan reviews.
- That significant capacity currently exists at the Belfast / Northwood KAC and this, along with the Central City are not yet performing their intended roles. It would be contrary to district plan planning policy to promote the outward growth of other commercial areas where an assessment of the impact on these centres (and other policy considerations) has not been undertaken.
- The key planning response promoted in *Our Space to address the shortfall identified in the capacity assessment* is for inner city industrial land to transition to commercial floorspace over time.

Additional land supported for urban (business) rezoning by CCC	Additional land not supported for urban (business) rezoning by CCC
	035 - RJ Civil (Industrial)
	039 – Christchurch International Airport (commercial and industrial)
	040 - Ben and Sally Tohill (Industrial)
	047 - Foddercube Products Ltd (Industrial)
	052 - Woolworths NZ Ltd (Commercial)
	092 - John Law (Industrial)

**Appendix F – Christchurch Business Land Demand Supplementary Paper – Hybrid Scenario**

*Attachment under separate cover*

**BEFORE THE GREATER CHRISTCHURCH PARTNERSHIP**

**HEARING PANEL**

**IN THE MATTER**

of the hearing on the draft Our  
Space 2018-2048 Greater  
Christchurch Settlement Pattern  
Update

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**EVIDENCE OF SANDRA JEAN MCINTYRE FOR CHRISTCHURCH CITY COUNCIL**

**15 February 2019**

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**INTRODUCTION**

1. My name is Sandra Jean McIntyre. I am a planning consultant with over 30 years' experience in the resource management field at local, regional and central government levels. Much of my experience has been focused on policy and plan development and management of policy processes. In 2013 I was involved with CERA<sup>1</sup> in the revision of the Draft Greater Christchurch Land Use Recovery Plan to incorporate decisions of the Minister for Earthquake Recovery and in 2015-16 I gave evidence for the Crown in the Christchurch District Plan hearings, including on residential intensification and on the provisions for greenfield residential development.
2. I have been engaged by Christchurch City Council ("the Council") to give evidence in support of the Council's submission on the Draft "Our Space Greater Christchurch Settlement Pattern Update" ("Our Space"). In particular, I have been asked to review the submission and the supplementary technical advice compiled by Christchurch City Council officers ("the supplementary technical advice") in response to the Greater Christchurch Partnership Officers' Report ("the Officers' Report") and to provide an independent assessment of the merits of the key matters raised.

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<sup>1</sup> Canterbury Earthquake Recovery Authority, which was disestablished in April 2016.

3. I am familiar with the National Policy Statement on Urban Development Capacity (“NPS-UDC”). I have read “Our Space” and relevant parts of the background documents<sup>2</sup> and the Officers Report. I understand that this hearing is not one which requires adherence to the Environment Court Code of Conduct; however, and in particular because “Our Space” must be prepared in accordance with a Resource Management Act document (the NPS-UDC), my evidence has been prepared in accordance with that Code.

## **CONTEXT**

4. I fully support the overall intent of Our Space. It is important that urban growth is guided by robust evidence and proactive planning, so as to ensure that both housing and opportunities to establish businesses are available when needed, to ensure urban areas function efficiently and effectively (in regard to both economic and social needs) and ultimately to ensure the wellbeing of residents.
5. I recognise that Our Space builds on extensive work that has been undertaken over many years by the Greater Christchurch Partnership (and previously the Urban Development Strategy Partnership) - firstly in developing the planning framework in the Urban Development Strategy and then reviewing and adjusting this (through the Greater Christchurch Land Use Recovery Plan) to respond to the significant loss of housing stock and to provide for the changing population patterns that emerged following the earthquakes.
6. I also recognise that the analysis underlying Our Space has been shaped to a significant extent by the need to meet the requirements of the NPS-UDC.

## **NPS-UDC**

7. The NPS-UDC is focused on ensuring that local authorities undertake appropriate analysis and make appropriate planning decisions to actively enable the supply of housing and business land needed to meet demand<sup>3</sup>. They must do this in a way that produces effective and efficient urban environments and maximises wellbeing now and in the future<sup>4</sup>. Planning must be coordinated and coherent across local authority boundaries<sup>5</sup>; and must be integrated with infrastructure (including the network infrastructure required to service developments and

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<sup>2</sup> Including: Housing and Business Development Capacity Assessment (March 2018), and Greater Christchurch Settlement Pattern Update - Options Assessment report (version 1)

<sup>3</sup> NPS-UDC Preamble; Objective OA2

<sup>4</sup> NPS-UDC Preamble; Objectives OA1 and OC1

<sup>5</sup> NPS-UDC Preamble; Objective OD2

also the broader support infrastructure such as the wider transport network, open space, and community and social infrastructure)<sup>6</sup>.

8. The NPS-UDC policies can be generally grouped into six areas; the outcomes sought for planning decisions, the requirement to carry out a housing and business development capacity assessment, the response to that development capacity assessment, minimum targets, the need to prepare a future development strategy, and encouragement of coordinated planning and decision-making.
9. Policies PC12 to PC14 are specific to the development and content of a Future Development Strategy, but are clearly not the only policies that are relevant to “Our Space”. The majority of the policies in the NPS-UDC are concerned with directing the analysis that must be undertaken to determine development demand, capacity and sufficiency. Policies PA1 to PA4 also provide direction as to the matters that must be considered in making planning decisions about how to provide for the required capacity. As well as providing for choice and competition in the market<sup>7</sup>, decision-makers must have particular regard to promoting efficient use of land and infrastructure<sup>8</sup>, must ensure adequate provision is made for development infrastructure<sup>9</sup> and must satisfy themselves that other infrastructure required to support urban development is likely to be available<sup>10</sup>. As well as the benefits of urban development in enabling people and communities to meet their current and future needs, decision-makers are also required to consider the benefits and costs of urban development at a wider scale<sup>11</sup>.

## **CHRISTCHURCH CITY COUNCIL’S SUBMISSION**

10. The concerns raised in the Council’s submission relate to:
  - a. Some aspects of the data analysis and its interpretation, affecting the extent and timing of projected shortfalls in housing supply and the validity of the business capacity assessment;
  - b. Insufficient attention to the need for sequencing of development to ensure efficient use of infrastructure;
  - c. Insufficient consideration of opportunities that could be provided by use of increased density as a tool to meet housing capacity needs; and

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<sup>6</sup> NPS-UDC Preamble; Objective OD1; Definitions of “*Development infrastructure*” and “*Other infrastructure*”

<sup>7</sup> NPS-UDC Policy PA3(a) and (c)

<sup>8</sup> NPS-UDC Policy PA3(b)

<sup>9</sup> NPS-UDC Policy PA1

<sup>10</sup> NPS-UDC Policy PA2

<sup>11</sup> NPS-UDC Policy PA4

- d. Potential for stronger advocacy of planning mechanisms to support delivery of social and affordable housing.
- 11.** The submission and the supplementary technical advice focus on details of the analysis and the planning response documented in Our Space, and on the extent to which these meet the requirements of the NPC-UDC. I understand that underlying the specific concerns highlighted are two broader strategic objectives for the pattern of future development in the Greater Christchurch urban area, and the importance of these for effective and efficient functioning of the urban environment. These objectives are:
- a. That development should occur in a way which supports a strong Central City, and ease of access to this area; and
  - b. That development should proceed in alignment with planning for the transportation network.
- 12.** Both of these objectives are consistent with recognised best practice in urban planning and have been embedded in strategic planning for Greater Christchurch since the development of the 2007 Greater Christchurch Urban Development Strategy. They have been incorporated into the policy direction in Chapter 6 of the Regional Policy Statement<sup>12</sup> and are now reflected in Section 5.2 of Our Space, which is the section specific to Christchurch City.
- 13.** The supplementary technical advice indicates that the recommendations in the Officers' Report have gone some way to resolving the specific concerns raised in the submission. My assessment focuses on the remaining key areas of concern to the Council, with particular reference to the implications for the strategic objectives I have highlighted above. While I have drawn on the information in the supplementary technical advice, I have not commented on all of the points covered in that document, and I note that further discussion of the concerns raised in the submission can be found there.

## **ASSESSMENT OF CONCERNS**

- 14.** The Council's remaining concerns relate to:
- a. Analysis of housing land sufficiency and how this affects the planning response;
  - b. Opportunities for greater use of density as a tool to meet demand for housing; and
  - c. The need for appropriate sequencing of land release to align with planning for the transport network.

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<sup>12</sup> See Objective 6.2.2, Policy 6.3.1 and Policy 6.3.5.

### ***Housing sufficiency***

- 15.** The submission questions the appropriateness of the figures for sufficiency of housing development capacity in Table 3 of Our Space (p. 13). In particular it highlights the implications of an error in calculation arising from a failure to exclude rural housing demand in Waimakariri and Selwyn Districts (despite rural capacity being specifically excluded). In short, the concern is that “Our Space” is not comparing apples with apples.
- 16.** The officers’ report acknowledges that there are several factors that contribute to uncertainty in the figures arrived at for sufficiency of housing development capacity. The results are subject to significant variability depending on the methodologies and assumptions used to derive them. In addition, it is accepted that adjustment is needed to ensure that either rural demand is excluded from the capacity assessment (complying with the NPS-UDC requirements) or adequate account is taken of rural capacity as well as demand. However there is no consensus on the appropriate methodology to use to address the current discrepancy.
- 17.** Appendix F in the officers’ report sets out several different approaches to calculating housing sufficiency. The supplementary technical advice suggests that the rural capacity figures in the officer’s report are underestimating sufficiency and includes, in Appendix B, an alternative approach. I am not qualified to make any assessment of the relative merits of the various methodologies. However the degree of uncertainty that clearly exists in relation to both the size and timing of potential housing shortfalls has implications in regard to the appropriate planning response.
- 18.** The scale and urgency of housing needs will determine the strength of policy direction required and the timing and extent of provisions for additional housing supply that it is appropriate to make. There are important risks that arise in relation to either a response based on an overestimate of demand or one based on an underestimate.
- 19.** Planning based on an underestimate of demand could constrain development and fail to provide an adequate supply of housing to meet needs of people and communities. The social and economic consequences of that have been well canvassed in recent years (in particular in Auckland), and the NPS-UDC was developed specifically to avoid this risk. In this respect, I note that Policy PC1 and PC2 of the NPS-UDC expressly require planning to include an additional margin of capacity to ensure supply remains ahead of demand.
- 20.** The risks associated with an overestimate of demand depend on the type of planning response – in particular, whether demand is to be met by allowing or encouraging

intensification or by expansion of the urban area. I discuss this below in relation to the Council's concern about the approach taken in "Our Space" to housing density.

21. There are always uncertainties inherent in population projections, and so it is crucial that actual trends are monitored and targets reviewed regularly. This is required by the NPS-UDC<sup>13</sup> and is provided for in Section 6 of "Our Space".
22. I agree with the supplementary technical advice that it would be highly desirable to get a clearer consensus about housing sufficiency before making planning decisions. However I consider that, to ensure compliance with the NPS-UDC, this should be addressed as soon as possible, rather than as part of the scheduled 2020 Capacity Assessment. In order to inform decision-making, it would be preferable for the Greater Christchurch Partners to work to resolve this before Our Space is finalised.
23. I note that the officer's report recommends that some of the uncertainty be addressed by specifying housing sufficiency within a range rather than as a single figure. The supplementary technical advice questions this approach because it potentially triggers a range of planning responses rather than a single clear direction. I agree that decision-making on a planning response is aided by a focus on a specific target rather than a range. On this point, I note that the NPS-UDC requires the setting of minimum targets (PC5 and PC9), which provide clear direction in terms of the provision of sufficient, feasible development capacity I also note that, for medium and high growth areas, the NPS-UDC requires an additional margin for feasible development capacity over projected demand, which will flow through into the minimum targets set by relevant local authorities. In light of the above, I consider it would be helpful to provide information about the likely range in addition to the target figures, as this will assist in evaluating the degree of risk associated with adopting a particular planning response.

### ***Housing density***

24. The Council is concerned that the planning response described in Our Space is overly reliant on greenfield expansion to address potential shortfalls in housing capacity. The submission requests that Our Space provide direction that the minimum net density applying in the proposed Future Urban Development Areas (FUDAs) should be consistent with the 15 households/ha required by the Canterbury Regional Policy Statement ("RPS") for greenfield areas in Christchurch City<sup>14</sup>, rather than the 10 households/ha currently required in Selwyn and Waimakariri Districts.

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<sup>13</sup> NPS-UDC Policies PB1, PB6 and PB7

<sup>14</sup> RPS Policy 6.3.7

- 25.** The officers' report (In Appendix F) accepts that, to most efficiently use the FUDAs and to promote a compact urban form, it would be appropriate to consider increasing, for these areas, the minimum net density for greenfield areas currently required by the RPS. The recommendation stops short of imposing a requirement to increase the density, because of a perceived lack of current evidence to show that such a requirement is deliverable or appropriate. The report also says inserting an immediate requirement in "Our Space" could risk poor alignment of development with existing master planning, structure planning, Long Term Plans and infrastructure strategies. To reflect this, the report recommends that "Our Space" require the partner local authorities to undertake a review of the appropriateness of existing minimum densities this year, and to consider including revised densities in the RPS as part of the proposed plan change to Chapter 6 of the RPS which is currently intended just to incorporate the FUDAs to the extent that these are required to meet any demand for additional capacity in the medium term.
- 26.** Appendix F of the officers' report includes (on page 96) a table<sup>15</sup> showing the effect of increasing density in the FUDAs on the housing capacity that these areas can provide. Comparing this to the amended housing sufficiency figures recommended in the same Appendix (p. 107) (and acknowledging the uncertainty in the housing sufficiency figures discussed earlier), it is clear that a 15 household/ha net density requirement would provide significantly greater confidence that the long term capacity demand can be met, without the need to consider release of any additional land beyond the Projected Infrastructure Boundary ("PIB").
- 27.** This is important in regard to the strategic objectives underlying the Council's submission. If the planning response in "Our Space" is not adequate to meet long term capacity demand, this will result in pressure to extend the PIB. The PIB has been identified through the Urban Development Strategy and included in the RPS through the Land Use Recovery Plan as the extent of land considered necessary to plan to in order to meet long term demand (albeit to a 2041 date rather than the 2048 date in "Our Space"). In particular, the PIB provides a guide for infrastructure planning to support future growth. Containment of development within the PIB supports achievement of a compact urban form that supports the core and facilitates good connections between residential areas and places of business, community and social activity. It provides certainty for transport planning to meet demand and, as discussed in the Council's supplementary technical advice, increasing density rather than relying on low density development provides better support for public transport. The supplementary technical advice includes a list of benefits of increased density (in comparison to increased

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<sup>15</sup> Taken from the Greater Christchurch Settlement Pattern Update – Options Assessment report.

urban expansion) which make it an appropriate tool to achieve required capacity, and I generally agree with that assessment.

- 28.** The supplementary technical advice supports the recommendation that direction on review of density requirements for the FUDAs should be provided in “Our Space” and the RPS, but considers that this direction needs to specifically state the required yield, in order to demonstrate sufficiency of housing supply. The advice cites experience in Christchurch City, as well as examples of rule requirements in district plans elsewhere in New Zealand, as evidence that a density of 12-15 households/ha is deliverable and accepted as appropriate for greenfield development areas. I agree that there are numerous examples of this, and I also agree that clearly stating the required yield as part of the planning response would more effectively demonstrate that the NPS-UDC requirement in Policy PA1 will be met.
- 29.** It is not clear to me what circumstances would necessitate a lower density for future greenfield development in the Waimakariri and Selwyn Districts than that required in Christchurch City’s Greenfield Priority Areas. Because the FUDAs are currently undeveloped, it is not clear to me what problem of alignment could arise in regard to master plans or structure plans. My expectation would be that these plans would be developed once the FUDAs are confirmed, rather than beforehand, and that they can then, as discussed in the supplementary technical advice, be designed to guide the pattern of development within the framework of the overall required yield. I also agree with the supplementary technical advice that matters of character and amenity, as well as accommodation of environmental constraints, can be appropriately addressed through zone rules and outline development plans.
- 30.** I am also not clear how an increase in the density requirement for FUDAs would cause problems of alignment with infrastructure planning or Long Term Plans. Water supply, wastewater and transport infrastructure planning is more likely to be impeded by lower density expansion, which would occupy a larger area of land and therefore require infrastructure to extend further. I acknowledge that a higher required density could potentially affect stormwater planning in some areas due to potential reduction in areas available for stormwater infiltration or detention. However, as discussed in the supplementary technical advice, the required yields are based on net density, so areas required for stormwater management would be excluded. This is a matter that can be addressed in structure plans or outline development plans after the required yield has been established.
- 31.** Waimakariri District Council (“WDC”) has advised that it does not support the officers’ report recommendation, in part because including this matter as part of the proposed change to the RPS would “open up Chapter 6 to more wide-ranging challenge, delay its passage and get

proposed district plans out of sync with the CRPS ...”<sup>16</sup> I note that it is not clear if the WDC view relates to the proposal to increase density requirements in the FUDAs, or whether it is based on an interpretation of the recommendation as requiring that the proposed change to the RPS consider density across the whole urban area. If the component to be addressed in the RPS is limited to the FUDAs (as I understand to be intended), then I do not consider it would open up Chapter 6 to broader challenge. The proposed change is intended to include the FUDAs in the RPS and direct decisions about when rezoning will be triggered. In my view, consideration of the minimum density that should apply in these areas would be an integral part of the section 32 evaluation of the proposal to provide for residential development in the FUDAs and would appropriately form part of the change proposal. I consider it highly likely that it would be a matter raised in submissions in any case. Confining the requirement to the areas of the proposed FUDAs would provide a clear limit to the scope of the proposed change.

### ***Sequencing of land release***

- 32.** The submission raises a concern that “Our Space” does not sequence development appropriately to ensure the efficient use of infrastructure. The officers’ report recommends amendments to the document to strengthen the direction on this. While the Council supports this recommendation, the supplementary technical advice clarifies that the Council’s main concern is not with the detailed staging of land development, but with broader alignment of urban growth with provision of the necessary transport infrastructure and changes in transport modes.
- 33.** Section 5.6 of “Our Space” states that current and scheduled investment in improvements to the transport system will not provide for the effects of projected growth, and that “if traffic volumes increase at the same rate as the population, there will be more congestion and longer journey times”<sup>17</sup>. The supplementary technical advice comments that Christchurch City is, and will continue to be a primary destination for travel in Greater Christchurch, and that increase in the numbers commuting from Waimakariri and Selwyn towns in recent years is likely to continue with further population growth.
- 34.** I agree with the supplementary technical advice that this situation poses a risk that the transport network serving Christchurch City will not be able to cope with demand from increased growth in the neighbouring districts. A congested transport system is inefficient. It impedes freight movements, increases costs and travel time for businesses and private individuals, and has an impact on both economic and community wellbeing. The

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<sup>16</sup> Officers’ Report Appendix F, p. 97

<sup>17</sup> “Our Space”, p. 27

supplementary technical advice notes that updated modelling of the transport impacts of projected growth has not yet been completed – this means that the magnitude of the risk is not currently clear.

35. “Our Space” recognises that significant investment in changes in transport modes will be needed to cater for population growth. It describes a vision for an enhanced public transport system and a wider programme to encourage use of multiple transport modes rather than reliance on private cars. The vision for enhanced public transport has been incorporated into the Draft Regional Public Transport Plan 2018-2028. However, “Our Space” acknowledges that the vision is ambitious and its implementation will require substantial Government contribution to funding. A business case for the enhanced public transport system has not yet been developed.
  
36. In this context of uncertainty, it would be prudent for short-medium term growth to focus on areas that are closer to places of work and business, and have good transport connections to these places. This would include encouraging uptake of existing infill opportunities and identifying further opportunities to increase density before further expanding residential development. Clear direction on sequencing of land release would assist in achieving this.
  
37. The supplementary technical advice discusses two possible alternative approaches to managing the timing of land release. These are:
  - a. Requiring that the minimum household growth targets not be exceeded for a specified period, or
  - b. Including a policy in the RPS that requires specified transport enhancements to be in place before land can be rezoned for development.
  
38. In my view, the second alternative has most merit, as it links the release of land directly to provision of the necessary infrastructure to support the growth enabled. It could also allow for a more location-specific sequencing approach than the first alternative would. Some consideration would be needed to determine the appropriate triggers to apply; however, if the policy was to form part of the proposed FUDA change to the RPS, the consideration could form part of the preparation and section 32 assessment for that.

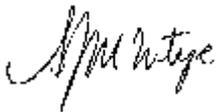
## **CONCLUSION AND RECOMMENDATIONS**

39. The Council’s submission raises some valid concerns that I consider are not fully addressed in the recommendations in the officers’ report. In particular:

- a. A clearer consensus is needed on the appropriate housing sufficiency figures required to inform the appropriate planning response.
- b. There should be more focus on use of density as a tool. In particular, “Our Space” and the RPS should direct a net density requirement for the FUDAs that is consistent with the net density required in Christchurch City greenfield priority areas. This will assist in providing certainty that required housing capacity can be met within the PIB.
- c. In light of current uncertainty about the impact of growth on the transport system and the implementation of system enhancements, direction should be provided in the RPS regarding sequencing of land release to ensure this is aligned with transport planning.

### **Recommendations**

1. That the Greater Christchurch Partners should work together to obtain a consensus about housing sufficiency before “Our Space” is finalised; and that this should be framed in terms of a specific target to be achieved, with the likely minimum-maximum range also identified to inform evaluation of risk.
2. That a 15 household/ha minimum net density for the proposed FUDAs be promoted in “Our Space” and included in the RPS change which is proposed to include the FUDAs.
3. That the proposed change to the RPS include provision for a policy that requires specified transport enhancements to be in place before land can be rezoned for development.



Sandra McIntyre

# PROPERTY **E**CONOMICS



CHRISTCHURCH BUSINESS  
LAND

Project No: 51679

DEMAND SUPPLEMENTARY

Date: February 2019

PAPER - HYBRID SCENARIO

Client: CCC



## SCHEDULE

<b>Code</b>	<b>Date</b>	<b>Information / Comments</b>	<b>Project Leader</b>
51679.16	February 2019	Report	Tim Heath / Phil Osborne

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## 1. INTRODUCTION

Property Economics has been engaged by CCC to provide a high-level snapshot of the business land demand implications of a new hybrid growth scenario for the Greater Christchurch area and the implications of this growth scenario for business land demand within Christchurch City over the next 30 years.

Both the base employment numbers by sector and distribution of forecast employment growth by sector under the hybrid growth scenario have been provided by CCC.

This overview builds on the Christchurch Business Land Capacity Assessment completed by Property Economics in February 2018, and this overview should be read in conjunction with that report for completeness and to understand the base context of this supplementary paper.

## 2. CHRISTCHURCH COMMERCIAL LAND DEMAND

The following tables represent the updated commercial (office) land demand projections based on the new (higher) hybrid growth scenario for Christchurch.

Quadrant	Employment		Employment Growth			Floorspace Requirements			NPS REQUIREMENT			Land Requirements (Ha) NPS			Infrastructure Requirements (Ha)		
	Current	Trended	3-Year Growth	10-Year Growth	30-Year Growth	3-Year Growth	10-Year Growth	30-Year Growth	3-Year Growth	10-Year Growth	30-Year Growth	3-Year Growth	10-Year Growth	30-Year Growth	3-Year Growth	10-Year Growth	30-Year Growth
North	11,398	13,034	391	326	1,897	11,823	9,871	57,399	14,188	11,845	66,009	3.55	2.96	16.50	4.6	3.8	21.5
South	20,887	23,773	746	580	3,384	20,303	15,804	92,132	24,363	18,965	105,952	6.09	4.74	26.49	7.9	6.2	34.4
East	4,591	5,349	158	151	864	4,758	4,545	25,928	5,710	5,453	29,817	1.43	1.36	7.45	1.9	1.8	9.7
Central	22,550	35,725	3,360	10,054	15,414	99,056	296,447	454,484	118,867	355,736	522,657	29.72	88.93	130.66	38.6	115.6	169.9
<b>Total</b>	<b>56,325</b>	<b>77,881</b>	<b>4,654</b>	<b>11,112</b>	<b>21,558</b>	<b>135,940</b>	<b>326,666</b>	<b>629,943</b>	<b>163,128</b>	<b>391,999</b>	<b>724,435</b>	<b>41</b>	<b>98</b>	<b>181</b>	<b>53</b>	<b>127</b>	<b>235</b>

The above matrix provides the commercial land demand (ex retail) based on all development being 'at grade'. Under the hybrid scenario this equates to 235ha, up from 221ha in the original report, i.e. the hybrid scenario increases at grade land demand by a net +14ha over the 30-year period.

The table below allows for commercial office demand to be met in multi-level developments and applies average heights across the quadrants to better reflect the market reality that not all commercial office development will be at ground level. These original quadrant averages were estimated average existing commercial building heights across each quadrant.

	Average	Land Requirements (Ha)			Infrastructure Requirements (Ha)			NPS REQUIREMENT		
		3-Year Growth	10-Year Growth	30-Year Growth	3-Year Growth	10-Year Growth	30-Year Growth	3-Year Growth	10-Year Growth	30-Year Growth
North	1.65	2.15	1.79	10.00	2.15	1.79	10.00	2.58	2.15	11.50
South	1.73	3.52	2.74	15.31	3.52	2.74	15.31	4.22	3.29	17.61
East	1.38	1.03	0.99	5.40	1.03	0.99	5.40	1.24	1.19	6.21
Central	2.06	14.43	43.17	63.43	14.43	43.17	63.43	17.31	51.81	72.94
<b>Total</b>		<b>21.13</b>	<b>48.70</b>	<b>94.14</b>	<b>21.13</b>	<b>48.70</b>	<b>94.14</b>	<b>25.36</b>	<b>58.43</b>	<b>108.26</b>

To ground truth these averages, CCC undertook a survey of building heights throughout the Central quadrant. The resulting average was a height of 2.14 storeys across the quadrant in line with the estimated average of 2.06 utilised by Property Economics. However the following table provides land requirement projections based on what is considered to be a more realistic future scenario of average building heights across the quadrants, the primary change being the Central quadrant to 3.3 storeys.

	Average	Land Requirements (Ha)			Infrastructure Requirements (Ha)			NPS REQUIREMENT		
		3-Year Growth	10-Year Growth	30-Year Growth	3-Year Growth	10-Year Growth	30-Year Growth	3-Year Growth	10-Year Growth	30-Year Growth
North	2	1.77	1.48	8.25	1.77	1.48	8.25	2.13	1.78	9.49
South	2.1	2.90	2.26	12.61	2.90	2.26	12.61	3.48	2.71	14.51
East	1.8	0.79	0.76	4.14	0.79	0.76	4.14	0.95	0.91	4.76
Central	3.3	9.01	26.95	39.60	9.01	26.95	39.60	10.81	32.34	45.53
<b>Total</b>		<b>14.47</b>	<b>31.45</b>	<b>64.60</b>	<b>14.47</b>	<b>31.45</b>	<b>64.60</b>	<b>17.37</b>	<b>37.73</b>	<b>74.29</b>

Applying the respective quadrant height averages, the total city commercial office land demand under the hybrid scenario is around 74.3ha (rounded). This has decreased from 82.5ha in the original report. This means the hybrid scenario generates an estimated net decrease of -8.2ha of commercial land demand across the city.

However, the redistribution of employment under the hybrid scenario means the Central Quadrant has resulted in a slight net increase in land demand for office activity by +7.4ha (from 38.1ha to 45.5ha), while the other quadrants have experienced a net decrease overall.

The hybrid scenario results in commercial office land requirement projections actually decreasing at grade at the city level due to more growth being allocated to the Central Quadrant which has a higher average building height, and thus requires less land to accommodate projected floor area compared to the other quadrants.

### 3. CHRISTCHURCH INDUSTRIAL LAND DEMAND

The following tables represent the updated industrial land demand projections based on the new (higher) hybrid growth scenario for Christchurch.

As in the original report, the table illustrates the more likely position where the flexibility afforded each industry increases over time as the market is more likely to move towards equilibrium. As such we have assessed the NPS medium and short-term periods as having 40% flexibility associated with them while the longer term 30-year period is assessed against 60% flexibility.

Quadrant	Employment		Employment Growth			Floorspace Requirements			Land Requirements (Ha)			Infrastructure Requirements (Ha)			NPS REQUIREMENT		
	Current	Trended	3-Year Growth	10-Year Growth	30-Year Growth	3-Year Growth	10-Year Growth	30-Year Growth	3-Year Growth	10-Year Growth	30-Year Growth	3-Year Growth	10-Year Growth	30-Year Growth	3-Year Growth	10-Year Growth	30-Year Growth
North	16,828	13,941	-100	-3,915	-2,954	53,469	11,566	288,145	15	3	82	21	4	111	25	5	128
South	28,441	24,573	175	-5,554	-3,751	121,400	48,030	545,553	35	14	156	47	19	210	56	22	242
East	11,738	8,920	-142	-3,433	-2,913	34,655	-11,339	128,605	10	-3	37	13	-4	50	16	-5	57
Central	11,647	11,381	630	-838	154	61,440	40,409	176,372	18	12	50	24	16	68	28	19	78
Total	68,654	58,815	563	-13,739	-9,465	270,965	88,666	1,138,674	77	25	325	105	34	439	125	41	505

The matrix above for industrial land demand under the hybrid scenario equates to 505ha for the city including the relevant NPS margins, an increase from 482ha (+23ha net) in the original report.

The quadrants with the most material increases were the South quadrant increasing from 234ha to 242ha (net increase of +8ha), and the Central quadrant increasing from 67ha to 78ha (a net increase of +11ha).

The table below shows, overall there remains sufficient industrial zoned land in the city to accommodate Christchurch's net +23ha increase in long term (30-year) land demand under the higher hybrid growth scenario.

### Industrial Land Requirement (ha)

CHRISTCHURCH CITY	3 Year Growth	10 Year Growth	30 Year Growth
<b>Total Demand</b>	125	41	505
<b>Total Supply</b>	934	934	934
Less land that is not serviced	-327	-226	-226
Less land that is not feasible	-1	-1	-1
<b>Sufficiency</b>	481	666	202

## 4. CHRISTCHURCH RETAIL LAND DEMAND

The following tables represent the updated key retail metrics and land demand projections (including commercial service activity) based on the new (higher) hybrid growth scenario for Christchurch.

CHRISTCHURCH UDS AREA	3 Years	5 Years	10 Years	30 Years
<b>NET RETAIL DEMAND (\$m)</b>	\$260	\$460	\$910	\$3,240
<b>RETAIL GFA (sqm)</b>	49,650	84,300	166,750	587,250
<b>Non-Retail Commercial Services (sqm)</b>	24,825	42,150	83,375	293,625
<b>Total Retail / Commercial Service Requirement (sqm)</b>	74,475	126,450	250,150	880,875
<b>Likely Land Requirement (ha)</b>	13.2	22.5	44.5	156.6
<b>Likely Land Requirement (ha) + NPS buffer</b>	15.9	27.0	53.4	180.1

The foregoing table indicates around 180ha of land is projected to be required for retail and commercial service activities over the 30-year timeframe, including the relevant NPS margins. This is a net increase of 19ha from the 161ha (rounded) requirements in the original report.

When translating this GFA requirement into land area, the 'at-grade' land requirements assumes that 95% of the additional retail land requirement will be developed 'at-grade' and the balance (5%) will be 1<sup>st</sup> level space. The likely land requirement takes this assumption further and assumes that 50% of commercial services land requirement can be accommodated within ground level tenancies, while the other half of commercial service growth will be accommodated within 1<sup>st</sup> level space.

### Retail and Commercial Service Net Additional Land Demand by Quadrant

The Central quadrant is projected to experience the most change under the hybrid scenario increasing its land requirement by 19ha from the original report, from 29ha to 48ha over the 30-year timeframe.

CENTRAL	3 Years	5 Years	10 Years	30 Years
<b>NET RETAIL DEMAND (\$m)</b>	\$50	\$90	\$180	\$870
<b>RETAIL GFA (sqm)</b>	9,600	16,400	32,350	156,600
<b>Non-Retail Commercial Services (sqm)</b>	4,800	8,200	16,175	78,300
<b>Total Retail / Commercial Service Requirement (sqm)</b>	14,400	24,600	48,550	234,900
<b>Likely Land Requirement (ha)</b>	2.6	4.4	8.6	41.8
<b>Likely Land Requirement (ha) + NPS buffer</b>	3.1	5.2	10.4	48.0

The balance of the land requirements for retail and commercial service activities in the other quadrants remain the same and are provided below for convenience.

<b>SOUTH</b>	<b>3 Years</b>	<b>5 Years</b>	<b>10 Years</b>	<b>30 Years</b>
<b>NET RETAIL DEMAND (\$m)</b>	\$110	\$180	\$360	\$1,200
RETAIL GFA (sqm)	20,050	34,050	67,550	218,750
Non-Retail Commercial Services (sqm)	10,025	17,025	33,775	109,375
<b>Total Retail / Commercial Service Requirement (sqm)</b>	<b>30,075</b>	<b>51,075</b>	<b>101,325</b>	<b>328,125</b>
Likely Land Requirement (ha)	5.3	9.1	18.0	58.3
Likely Land Requirement (ha) + NPS buffer	6.4	10.9	21.6	67.1

<b>NORTH</b>	<b>3 Years</b>	<b>5 Years</b>	<b>10 Years</b>	<b>30 Years</b>
<b>NET RETAIL DEMAND (\$m)</b>	\$60	\$110	\$220	\$720
RETAIL GFA (sqm)	11,900	20,150	40,400	130,300
Non-Retail Commercial Services (sqm)	5,950	10,075	20,200	65,150
<b>Total Retail / Commercial Service Requirement (sqm)</b>	<b>17,850</b>	<b>30,225</b>	<b>60,600</b>	<b>195,450</b>
Likely Land Requirement (ha)	3.2	5.4	10.8	34.7
Likely Land Requirement (ha) + NPS buffer	3.8	6.4	12.9	40.0

<b>EAST</b>	<b>3 Years</b>	<b>5 Years</b>	<b>10 Years</b>	<b>30 Years</b>
<b>NET RETAIL DEMAND (\$m)</b>	\$40	\$80	\$150	\$450
RETAIL GFA (sqm)	8,100	13,700	26,450	81,600
Non-Retail Commercial Services (sqm)	4,050	6,850	13,225	40,800
<b>Total Retail / Commercial Service Requirement (sqm)</b>	<b>12,150</b>	<b>20,550</b>	<b>39,675</b>	<b>122,400</b>
Likely Land Requirement (ha)	2.2	3.7	7.1	21.8
Likely Land Requirement (ha) + NPS buffer	2.6	4.4	8.5	25.0

The projected retail and commercial service demand at grade, i.e. the estimated land area they would require based on a redistribution of spend and activity to reflect commercial realities (e.g. the Central City area attracts significantly more spend on a proportional basis than the area generates), is shown in Appendix 1. The table in Appendix 1 shows the projected at grade floorspace demand annualised by quadrant across the different activity types.

A consolidated snapshot of the retail, commercial service and office land demand implication of the hybrid scenario is shown in the following table identifying business land demand and supply comparison.

<b>Land Requirement (ha)</b>			
<b>CHRISTCHURCH CITY</b>	<b>3 Year Growth</b>	<b>10 Year Growth</b>	<b>30 Year Growth</b>
Commercial Offices	21	37	84
Commercial Services	3	11	35
Retail	15	51	145
<b>Total Demand</b>	<b>39</b>	<b>99</b>	<b>264</b>
<b>Total Supply</b>	<b>129</b>	<b>129</b>	<b>129</b>
Less land that is not serviced	-9.44		
Less land that is not feasible	-1.5		
<b>Sufficiency</b>	<b>79</b>	<b>30</b>	<b>-135</b>

The net outcome of the hybrid scenario is the shortfall in land sufficiency for these activity types has increased from -118.5ha in the original assessment to -135ha, an increase in the long term 30-year shortfall of +16.5ha. This is primarily driven by the increase in retail land demand requirement in the Central quadrant where majority of the additional growth under the hybrid scenario has been allocated.

## 5. SUMMARY

Overall the hybrid growth scenario does not generate any additional long-term business land requirements that would trigger a change in the strategic direction or thinking for CCC relative to the conclusions and recommendations in the original report.

The quadrant most affected is the Central Quadrant. This quadrant has sufficient business land supply to comfortably absorb the additional industrial and commercial long-term land demand. In essence the primary market implication will be the conversion of the current industrial zone activity in the Central Quadrant to commercial and retail activity may occur at a slightly slower rate than originally projected given the slightly (albeit not material when considered in the wider industrial land supply context) increased industrial demand for the Central Quadrant.

The hybrid scenario's increase retail land requirement on the Central quadrant, being a higher value land use, will place increased pressure on the Central quadrant industrial land resource over the long term, but across the short-medium term period there is no material change from the original projections.

Property Economics consider the hybrid growth scenario is more likely to represent the future growth profile for the city than in the original report, albeit the distribution of this higher growth scenario between the quadrants may vary.



## APPENDIX 1: BUSINESS LAND DEMAND SUPPLY COMPARISON

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
North	Commercial Office	2,300	4,600	6,800	6,400	6,000	5,400	4,800	4,400	4,000	3,400	5,800	8,300	10,700	13,100	15,400
	Commercial Services	1,300	2,600	3,900	3,900	3,900	3,900	3,900	3,900	3,900	3,900	5,200	6,600	7,900	9,300	10,600
	Retail	1,300	2,600	3,900	3,900	3,900	3,900	3,900	3,900	3,900	3,900	6,900	9,800	12,800	15,700	18,700
	Commercial Supply	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
	<b>Differential</b>	<b>115,100</b>	<b>110,200</b>	<b>105,400</b>	<b>105,800</b>	<b>106,200</b>	<b>106,800</b>	<b>107,400</b>	<b>107,800</b>	<b>108,200</b>	<b>108,800</b>	<b>102,100</b>	<b>95,300</b>	<b>88,600</b>	<b>81,900</b>	<b>75,300</b>
South	Commercial Office	4,600	9,100	13,700	12,200	10,800	9,400	7,800	6,400	4,900	3,400	6,900	10,300	13,700	17,200	20,500
	Commercial Services	1,300	2,600	3,800	4,400	4,900	5,500	6,100	6,700	7,200	7,800	10,200	12,500	14,900	17,200	19,600
	Retail	2,600	5,200	7,900	7,900	7,900	7,900	7,900	7,900	7,900	7,900	12,600	17,300	22,000	26,700	31,400
	Commercial Supply	125,300	130,700	136,000	136,000	136,000	136,000	136,000	136,000	136,000	136,000	136,000	136,000	136,000	136,000	136,000
	<b>Differential</b>	<b>116,800</b>	<b>113,800</b>	<b>110,600</b>	<b>111,500</b>	<b>112,400</b>	<b>113,200</b>	<b>114,200</b>	<b>115,000</b>	<b>116,000</b>	<b>116,900</b>	<b>106,300</b>	<b>95,900</b>	<b>85,400</b>	<b>74,900</b>	<b>64,500</b>
East	Commercial Office	1,100	2,200	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	4,600	5,700	7,000	8,200	9,300
	Commercial Services	1,300	2,600	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	4,500	5,300	6,000	6,800	7,600
	Retail	1,300	2,600	3,900	3,900	3,900	3,900	3,900	3,900	3,900	3,900	5,600	7,400	9,100	10,900	12,600
	Commercial Supply	101,400	82,700	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000
	<b>Differential</b>	<b>97,700</b>	<b>75,300</b>	<b>53,000</b>	<b>49,300</b>	<b>45,600</b>	<b>41,900</b>	<b>38,100</b>	<b>34,500</b>							
Central	Commercial Office	16,700	33,300	50,000	54,200	63,000	71,600	80,700	89,300	119,500	132,600	139,900	110,700	114,000	117,700	121,600
	Commercial Services	1,600	3,400	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	6,300	7,500	8,800	10,000	11,300
	Retail	16,700	33,300	50,000	70,800	91,400	112,100	132,900	153,700	174,300	195,000	203,800	212,500	221,300	230,100	238,900
	Commercial Supply	141,300	162,600	184,000	184,000	184,000	184,000	184,000	184,000	184,000	184,000	184,000	184,000	184,000	184,000	184,000
	<b>Differential</b>	<b>106,300</b>	<b>92,600</b>	<b>79,000</b>	<b>54,000</b>	<b>24,600</b>	<b>-4,700</b>	<b>-34,600</b>	<b>-64,000</b>	<b>-114,800</b>	<b>-148,600</b>	<b>-166,000</b>	<b>-146,700</b>	<b>-160,100</b>	<b>-173,800</b>	<b>-187,800</b>
Total	Commercial Office	24,700	49,200	73,800	76,100	83,100	89,700	96,600	103,400	131,700	142,700	157,200	135,000	145,400	156,200	166,800
	Commercial Services	5,500	11,200	16,500	17,100	17,600	18,200	18,800	19,400	19,900	20,500	26,200	31,900	37,600	43,300	49,100
	Retail	21,900	43,700	65,700	86,500	107,100	127,800	148,600	169,400	190,000	210,700	228,900	247,000	265,200	283,400	301,600
	Commercial Supply	488,000	496,000	504,000	504,000	504,000	504,000	504,000	504,000	504,000	504,000	504,000	504,000	504,000	504,000	504,000
	<b>Differential</b>	<b>435,900</b>	<b>391,900</b>	<b>348,000</b>	<b>324,300</b>	<b>296,200</b>	<b>268,300</b>	<b>240,000</b>	<b>211,800</b>	<b>162,400</b>	<b>130,100</b>	<b>91,700</b>	<b>90,100</b>	<b>55,800</b>	<b>21,100</b>	<b>-13,500</b>
North	Commercial Office	17,800	20,200	22,600	25,100	27,500	29,800	32,200	34,600	37,000	39,400	41,900	44,300	46,600	49,000	51,400
	Commercial Services	12,000	13,300	14,700	16,000	17,400	18,800	20,200	21,600	23,000	24,400	25,800	27,200	28,600	30,000	31,400
	Retail	21,600	24,600	27,500	30,500	33,400	36,400	39,300	42,300	45,200	48,200	51,100	54,000	56,900	59,800	62,700
	Commercial Supply	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
	<b>Differential</b>	<b>68,600</b>	<b>61,900</b>	<b>55,200</b>	<b>48,400</b>	<b>41,700</b>	<b>35,000</b>	<b>28,300</b>	<b>21,500</b>	<b>14,800</b>	<b>8,000</b>	<b>1,200</b>	<b>-5,500</b>	<b>-12,100</b>	<b>-18,800</b>	<b>-25,500</b>
South	Commercial Office	23,900	27,400	30,800	34,200	37,700	41,100	44,500	48,000	51,400	54,700	58,200	61,600	65,000	68,500	71,900
	Commercial Services	21,900	24,300	26,600	29,000	31,300	33,700	36,000	38,400	40,700	43,100	45,400	47,800	50,100	52,500	54,900
	Retail	36,100	40,800	45,500	50,200	54,900	59,600	64,300	69,000	73,700	78,400	83,100	87,800	92,500	97,200	101,900
	Commercial Supply	136,000	136,000	136,000	136,000	136,000	136,000	136,000	136,000	136,000	136,000	136,000	136,000	136,000	136,000	136,000
	<b>Differential</b>	<b>54,100</b>	<b>43,500</b>	<b>33,100</b>	<b>22,600</b>	<b>12,100</b>	<b>1,600</b>	<b>-8,800</b>	<b>-19,400</b>	<b>-29,800</b>	<b>-40,200</b>	<b>-50,700</b>	<b>-61,200</b>	<b>-71,600</b>	<b>-82,200</b>	<b>-92,700</b>
East	Commercial Office	10,600	11,700	13,000	14,100	15,300	16,500	17,700	18,800	20,100	21,200	22,500	23,600	24,800	26,100	27,200
	Commercial Services	8,400	9,200	10,000	10,800	11,600	12,400	13,200	14,000	14,800	15,600	16,400	17,200	18,000	18,800	19,600
	Retail	14,400	16,100	17,900	19,600	21,400	23,100	24,900	26,600	28,400	30,200	32,000	33,800	35,600	37,400	39,200
	Commercial Supply	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000
	<b>Differential</b>	<b>30,600</b>	<b>27,000</b>	<b>23,100</b>	<b>19,500</b>	<b>15,700</b>	<b>12,000</b>	<b>8,200</b>	<b>4,600</b>	<b>700</b>	<b>-3,000</b>	<b>-6,900</b>	<b>-10,600</b>	<b>-14,400</b>	<b>-18,300</b>	<b>-22,000</b>
Central	Commercial Office	124,500	128,100	131,500	135,100	138,400	141,900	145,300	148,800	152,100	155,900	158,800	162,500	166,000	169,100	172,800
	Commercial Services	12,500	13,800	15,000	16,300	17,500	18,800	20,000	21,300	22,500	23,800	25,000	26,300	27,500	28,800	30,100
	Retail	247,700	256,500	265,300	274,100	282,900	291,700	300,500	309,300	318,100	326,900	335,700	344,500	353,300	362,100	370,900
	Commercial Supply	184,000	184,000	184,000	184,000	184,000	184,000	184,000	184,000	184,000	184,000	184,000	184,000	184,000	184,000	184,000
	<b>Differential</b>	<b>-200,700</b>	<b>-214,400</b>	<b>-227,800</b>	<b>-241,500</b>	<b>-254,800</b>	<b>-268,400</b>	<b>-281,800</b>	<b>-295,400</b>	<b>-308,700</b>	<b>-322,600</b>	<b>-335,500</b>	<b>-349,300</b>	<b>-362,800</b>	<b>-376,000</b>	<b>-389,800</b>
Total	Commercial Office	176,800	187,400	197,900	208,500	218,900	229,300	239,700	250,200	260,600	271,200	281,400	292,000	302,400	312,700	323,300
	Commercial Services	54,800	60,600	66,300	72,100	77,800	83,700	89,400	95,300	101,000	106,900	112,600	118,500	124,200	130,100	136,000
	Retail	319,800	338,000	356,200	374,400	392,600	410,800	429,000	447,200	465,400	483,700	501,900	520,100	538,300	556,500	574,700
	Commercial Supply	504,000	504,000	504,000	504,000	504,000	504,000	504,000	504,000	504,000	504,000	504,000	504,000	504,000	504,000	504,000
	<b>Differential</b>	<b>-47,400</b>	<b>-82,000</b>	<b>-116,400</b>	<b>-151,000</b>	<b>-185,300</b>	<b>-219,800</b>	<b>-254,100</b>	<b>-288,700</b>	<b>-323,000</b>	<b>-357,800</b>	<b>-391,900</b>	<b>-426,600</b>	<b>-460,900</b>	<b>-495,300</b>	<b>-530,000</b>