

Before the Selwyn District Council

under: the Resource Management Act 1991

in the matter of: Proposed Private Plan Change 69 to the Operative
District Plan: Lincoln South

and: **Rolleston Industrial Developments Limited**
Applicant

Statement of Evidence of Fraser Colegrave (Economics)

Dated: 4 November 2021

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STATEMENT OF EVIDENCE OF FRASER COLEGRAVE

INTRODUCTION

- 1 My full name is Fraser James Colegrave. I am an economist and the managing director of Insight Economics, an economics consultancy based in Auckland. Prior to that, I was a founding director of another consultancy, Covec Limited, for 12 years.
- 2 I hold a Bachelor of Commerce (1st Class Honours) in Economics from the University of Auckland.
- 3 I have over 24 years' commercial experience, the last 21 of which I have worked as an economics consultant. During that time, I have successfully led and completed more than 500 consulting projects across a broad range of sectors.
- 4 My main fields of expertise are land-use and property development. I have worked extensively in these areas for dozens of the largest developers in New Zealand. In addition, I regularly advise Local and Central Government on a range of associated policy matters.
- 5 Over the last 15 years, I have worked on numerous land use and property development projects across Greater Christchurch, including several in Selwyn. I am therefore familiar with the economic structure of the district, and its role in the Greater Christchurch sub-region.
- 6 I also regularly appear as an expert witness before Councils, Boards of Inquiry, Independent Hearing Panels, the Land Valuation Tribunal, the EPA, the Environment Court, the Family Court, and the High Court of New Zealand.
- 7 I am familiar with the plan change application by Rolleston Industrial Developments Limited (*the Applicant*) to rezone approximately 190 hectares of land on Springs Road, Lincoln to enable approximately 2,000 residential sites and a small commercial zone.

CODE OF CONDUCT

- 8 Although this is not an Environment Court hearing, I note that in preparing my evidence I have reviewed the Code of Conduct for Expert Witnesses contained in Part 7 of the Environment Court Practice Note 2014. I have complied with it in preparing my evidence. I confirm that the issues addressed in this statement of evidence are within my area of expertise, except where relying on the opinion or evidence of other witnesses. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

SCOPE OF EVIDENCE

- 9 My evidence will deal with the following:
 - 9.1 A brief description of the proposed plan change.
 - 9.2 Consideration of the need for the plan change according to the Council's requirements under the National Policy Statement On Urban Development 2020 (NPSUD).
 - 9.3 An assessment of the economic costs and benefits of the plan change, particularly in light of the perceived need for it according to my earlier NPSUD analysis.

SUMMARY

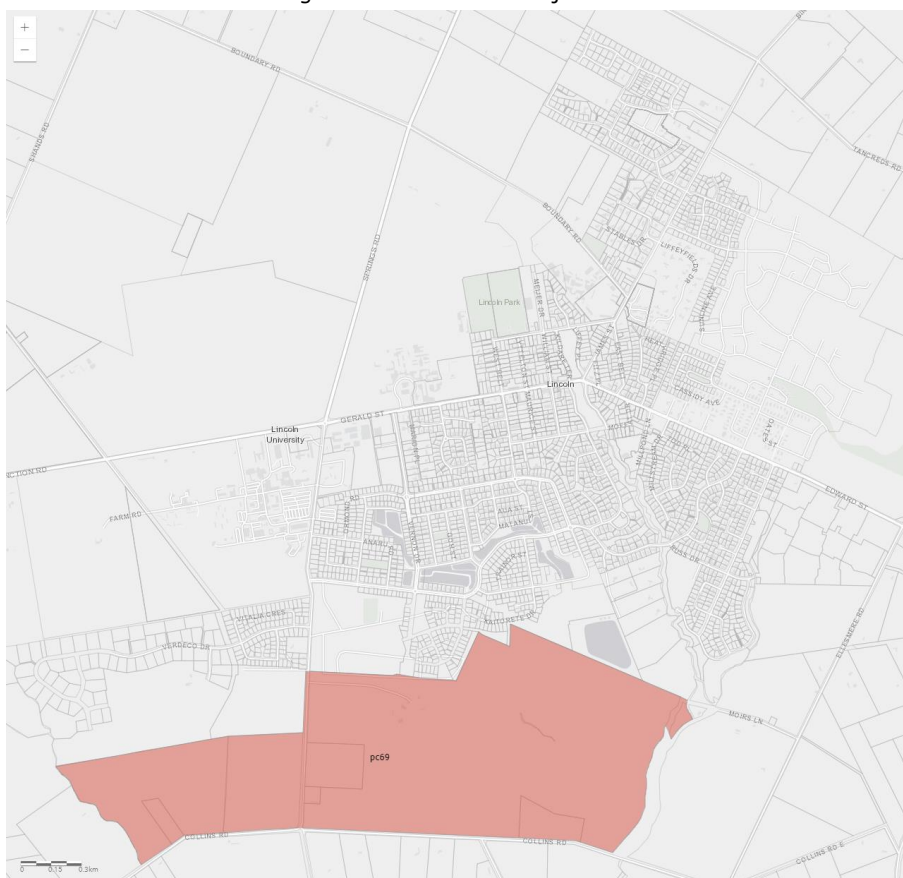
- 10 Plan Change 69 (PC69) seeks to rezone approximately 190 hectares of land on Springs Road, Lincoln, to enable approximately 2,000 residential sites and 3 small commercial zones.
- 11 This evidence shows that the Council is currently not meeting its obligations to provide at least sufficient capacity to meet the demand for new dwellings, as required by the NPSUD.
- 12 This is both because the Council's estimates of demand for additional dwellings are inordinately low, while its estimates of likely capacity to meet that demand appear grossly overstated.
- 13 When the various issues identified herein are addressed to provide more reliable estimates of dwelling supply/demand, the district clearly faces significant supply shortfalls under the short, medium, and longer terms. Accordingly, additional land needs to be identified and rezoned as soon as possible to meet NPSUD obligations, and to enable the efficient operation of the local land market.
- 14 Overall, it is my assessment that the proposal will provide strong economic benefits, including:
 - 14.1 Providing a substantial, direct boost in market supply to meet current and projected future shortfalls;
 - 14.2 Bolstering land market competition, which helps deliver new sections to the market quicker and at better average prices;
 - 14.3 Helping to provide for a range of housing typologies to meet a diverse range of needs and preference, which is also required by the NPSUD;

- 14.4 Contributing to achieving critical mass to support greater local retail/service provision, including the community's vision for a renewed Rolleston Town Centre; and
- 14.5 The one-off economic stimulus associated with developing the land and constructing the dwellings that will be enabled there.
- 15 The only possible economic cost is potential adverse effects of the proposed commercial area on the role and function of the Lincoln Key Activity Centre. However, at only 450m² of Gross Floor Area, they are far too small to have any such effects.
- 16 The s42A report recommended that the proposed Business 1 Zone be enlarged. The Applicant now suggests two additional smaller commercial centres at the West and East ends of the PC69 sites. However, the adverse economic effects of these centres will be similarly minor given their small size.
- 17 Given the strong and enduring benefits of the proposed plan change, and noting the absence of any material economic costs, I support it on economic grounds.

ABOUT THE PROPOSED PLAN CHANGE

- 18 Plan Change 69 (PC69) seeks to rezone approximately 190 hectares of land on the southern outskirts of Lincoln to accommodate approximately 2,000 dwellings and a small amount of commercial activity. The subject land spans several sites, which are currently zoned as Rural Outer Plains. Figure 1 identifies the subject land.

Figure 1: Location of Subject Site



THE NEED FOR THE PLAN CHANGE ACCORDING TO THE NATIONAL POLICY STATEMENT ON URBAN DEVELOPMENT

- 19 The National Policy Statement on Urban Development 2020 (NPSUD) came into effect in August 2020. Like its predecessor, the NPSUDC 2016, the NPSUD requires Councils in high growth areas to provide (at least) sufficient development capacity to meet expected future demand for additional dwellings over the short-, medium-, and long-term.
- 20 In addition, the NPSUD imposes strict monitoring and reporting requirements to ensure that any likely capacity shortfalls are identified and rectified as soon as possible.
- 21 The NPSUD's requirements for monitoring and providing at least sufficient development capacity vary across three tiers, with the strictest requirements imposed on Councils in tier 1 urban environments. These represent the highest-growth areas, where capacity shortfalls have historically been the most acute.
- 22 Selwyn District comprises part of the Greater Christchurch Tier 1 urban environment and is therefore required under the NPSUD to

complete a detailed housing and business development capacity assessment (HBA) every three years. The HBA synthesizes a raft of information about the supply and demand for new dwellings to ensure that sufficient capacity is being provided in the right places and at the right time to keep pace with demand through to the long term.

- 23 On 30 July 2021, the Greater Christchurch Partnership (GCP) published its latest HBA for its three partner Councils: Christchurch City, Selwyn District, and Waimakariri District.¹
- 24 The table below summarises the estimated feasible capacity and projected future demand for additional dwellings in Selwyn according to the latest HBA for three different capacity scenarios:
 - 24.1 Excluding Rolleston's future development areas (FUDAs) (which were identified in the 2018-2048 Our Space strategy);
 - 24.2 Including Rolleston's FUDAs at a density of 12.5 households per hectare; and
 - 24.3 Including Rolleston's FUDAs at a density of 15 households per hectare.

¹<https://www.greaterchristchurch.org.nz/assets/Documents/greaterchristchurch/Capacity-Assessment-reports-2021/Greater-Christchurch-Housing-Development-Capacity-Assessment-July-2021.pdf>

Table 1: Selwyn District Feasible Capacity and Dwelling Demand in Latest HBA

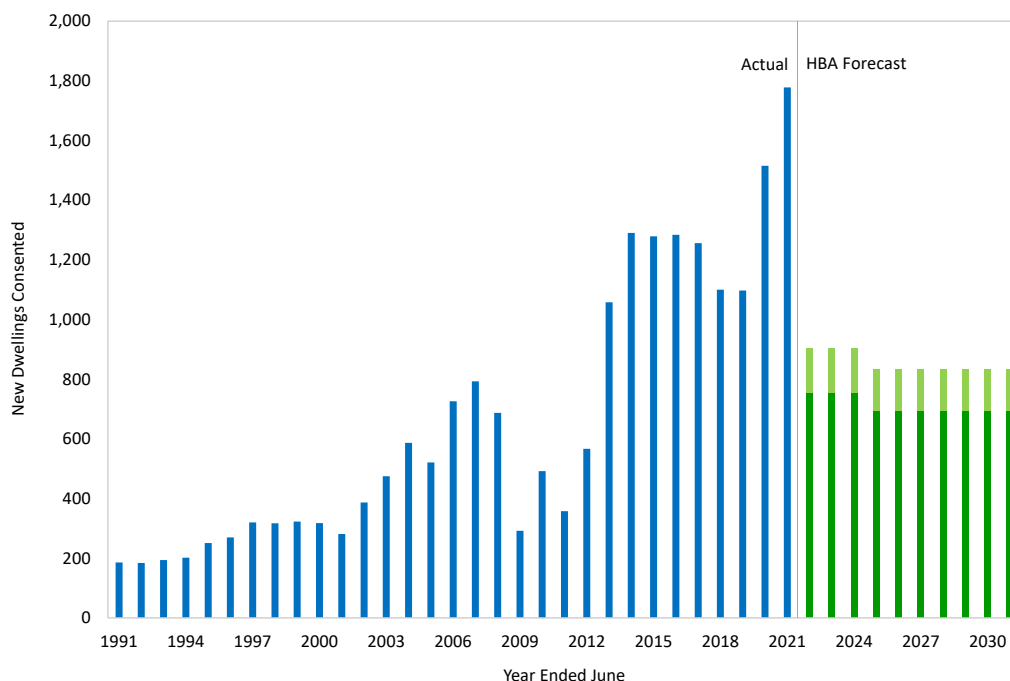
Scenario 1: Excluding Future Urban Development Areas (FUDAs)			
<u>Timeframes</u>	<u>Feasible Capacity</u>	<u>Demand incl buffer</u>	<u>Surplus/Shortfall</u>
Short Term	4,578	2,714	1,864
Medium term	6,452	8,541	2,089
Long term	6,452	25,338	18,886
Scenario 2: Including Future Urban Development Areas (FUDAs) @ 12.5 hh/ha			
<u>Timeframes</u>	<u>Feasible Capacity</u>	<u>Demand incl buffer</u>	<u>Surplus/Shortfall</u>
Short Term	4,578	2,714	1,864
Medium term	12,208	8,541	3,667
Long term	12,208	25,338	13,130
Scenario 3: Including Future Urban Development Areas (FUDAs) @ 15 hh/ha			
<u>Timeframes</u>	<u>Feasible Capacity</u>	<u>Demand incl buffer</u>	<u>Surplus/Shortfall</u>
Short Term	4,578	2,714	1,864
Medium term	13,502	8,541	4,961
Long term	13,502	25,338	11,836

- 25 Table 1 shows that, when the FUDAs in Rolleston are excluded, the latest HBA reveals a significant shortfall in feasible district dwelling capacity over both the medium-term (3 to 10 years) and long-term (10 to 30 years). When those new growth areas are included, however, the medium-term shortfall disappears leaving only long-term deficits.
- 26 While these latest dwelling supply/demand figures imply no short-term need to provide additional dwelling capacity to meet demand, there are several compelling reasons why this is unlikely to be the case.
- 27 First, the capacity requirements set out in the NPSUD are minima, not targets, and they must be achieved “at all times”. Thus, even if a Council appears to have “sufficient” capacity to meet demand, that does not negate the benefits of providing additional capacity. The opposite is generally true. Thus, all other things being equal, the greater the capacity provided, the greater the degree of land market competition and the more efficiently that the market operates (for the wider benefit of the community).
- 28 Second, the Council has used the FUDA’s as part of its medium-term capacity. However, clause 3.2 of the NPSUD requires that for capacity to be ‘sufficient’ to meet expected demand, it must be (among other things) ‘plan enabled.’ Clause 3.4 of the NPSUD goes on to state that development is ‘plan-enabled’ for housing if, in relation to the medium term, it is on land zoned accordingly for

housing² under either an operative or proposed district plan. This is not the case for the FUDAs in Rolleston and as such these areas cannot be considered in any medium-term development capacity assessment.

- 29 Thirdly, the Council's estimates of future dwelling demand appear very conservative. Specifically, the HBA assumes short-term demand for only 2,714 new dwellings over the next three years, and a medium-term demand for only 8,541 over the next 10 years (both including 20% competitiveness margins). These equate to annual run rates of about only 900 dwellings over the short term, and 850 over the medium term.
- 30 By contrast, the latest building consent data published by Statistics New Zealand show that nearly 1,800 new dwellings were granted in Selwyn during the 12 months ended June 2021, which is double the assumed short-run rate of only 900.
- 31 Figure 2 provides more details. It compares the HBA's projected dwelling demand to 2031 (the green bars) to actual district building consents granted since 1991 (the blue bars). The light green segments at the top of the HBA forecast bars represent the NPSUD competitiveness margins.

Figure 2: Recent Building Consent Volumes vs HBA Demand Estimates³



² Noting that clause 3.4(2) goes on to state that land is 'zoned' for housing only if the housing use is a permitted, controlled, or restricted discretionary activity on that land.

³ Building Consent data was retrieved from <http://infoshare.stats.govt.nz/>

- 32 Clearly, the HBA's forecasts of short- to medium-term future growth defy recent trends and thus almost invariably understate the true extent of future demand. When the competitiveness margins (i.e. the light green bits at the top of the HBA bars) are stripped out to make it a like-for-like comparison with the blue bars (which are raw consent numbers and thus exclude any margins), this anomaly becomes even more stark.
- 33 Not only does the HBA for Selwyn adopt inexplicably low estimates of demand (based on the latest Stats NZ high population projection, which the district is currently exceeding by quite some margin), but its estimates of feasible capacity (to meet that demand) appear grossly overstated. There are several issues at play here, which I now work through one by one.
- 34 First, when calculating the feasible capacity for new dwellings still residing in existing greenfield areas, which account for most of the short-run supply, the modelling assumes that only 25% of such land will be used for infrastructure (such as roads, parks, and reserves). Thus, it assumes that 75% of the land will be available for development.⁴
- 35 To ground-truth this assumption, I reviewed a recent, detailed report on residential development densities by Harrison Grierson, which was commissioned by the GCP.⁵ It profiles the development outcomes achieved across various recent greenfield subdivisions, several of which were in Greater Christchurch.
- 36 I extracted data from that report to identify the proportion of land in each subdivision used for residential dwellings versus commercial uses or infrastructure. The results are tabulated below, and show that only 60% of greenfield land is typically available for new housing, not 75% as the HBA modelling suggest.

Table 2: Land Use Coverage Ratios in Recent Greenfield Subdivisions

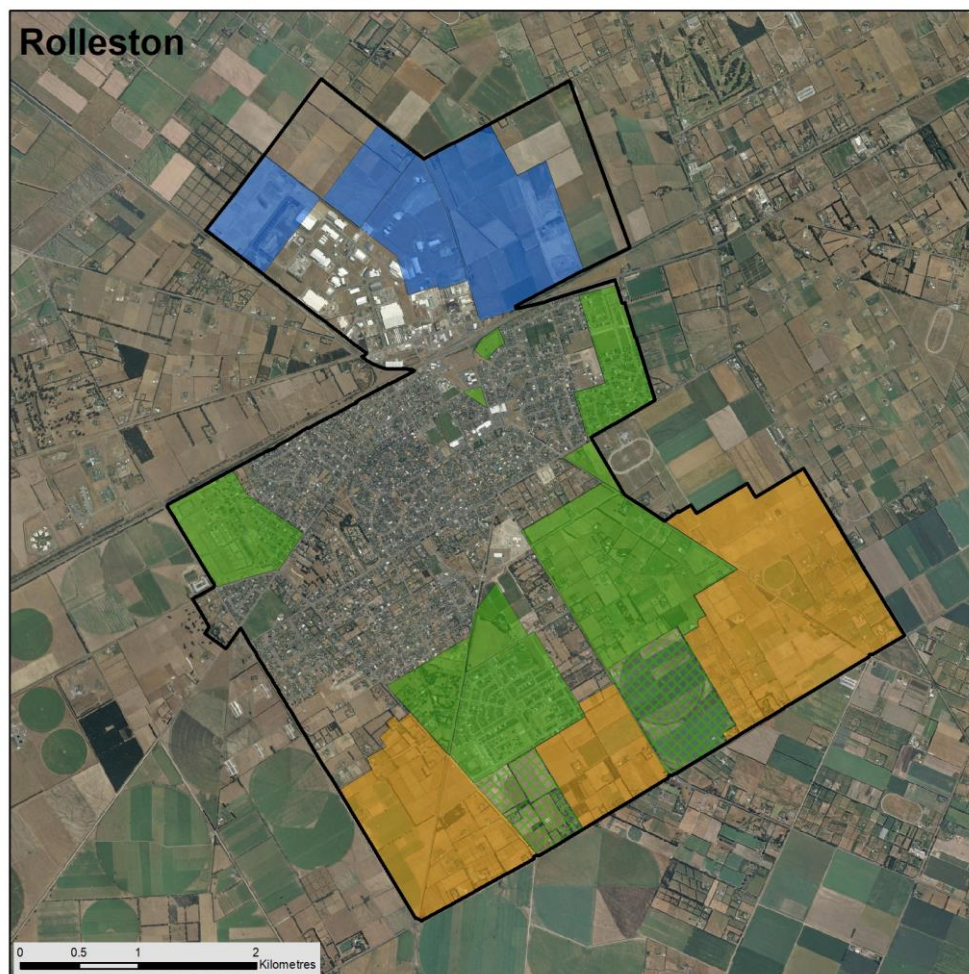
Greenfield Development	Residential	Commercial	Infrastructure	Total
Spring Grove (Belfast, Christchurch)	53%	0%	47%	100%
Golden Sands (Papamoa, Tauranga)	58%	1%	41%	100%
Huapai Triangle (Kumeu, Auckland)	58%	1%	41%	100%
Longhurst (Halswell, Christchurch)	63%	2%	35%	100%
Greenhill Park (Chartwell, Hamilton)	53%	0%	47%	100%
Faringdon (Rolleston, Selwyn)	63%	1%	36%	100%
Sovereign Palms (Kaiapoi, Waimakariri)	71%	1%	28%	100%
Average	60%	1%	39%	100%

⁴ See page 42 of the HBA (30 July 2021).

⁵ https://www.selwyn.govt.nz/_data/assets/pdf_file/0005/475466/UG-Chapter-Appendix-3-HG-Greenfield-Density-Analysis.pdf

- 37 I acknowledge that the proportion of land available for residential development varies across the case study areas in Table 2, and I also understand that geotechnical conditions are a key driver. For example, in low-lying, flood prone areas, more land is generally needed for stormwater management, with less required in more elevated and well-drained areas.
- 38 Based on discussions with district developers – including the developer of PC67, who has developed more than 2,700 sections across Greater Christchurch over the last 10 to 15 years – I understand that a net yield of 65% is more likely to reflect future development outcomes across Selwyn district, not the 75% assumed in the HBA. I return to this point shortly.
- 39 Yet another issue with the Council’s estimates of feasible capacity relate to the FUDAs identified in the 2018-2048 Our Space Strategy, which are represented by the orange blocks in the map below.

Figure 3: Map of Rolleston Future Urban Development Areas (FUDAs)



- 40 According to the HBA, these FUDAs can accommodate an additional 5,756 to 7,050 dwellings at densities of 12.5 and 15 dwellings per hectare, respectively.
- 41 While the HBA is not explicit about the land area underpinning these estimates, the lower figure translates to approximately 460 hectares of developable land, while the higher equates to about 470 hectares. Hence there is a discrepancy of 10 hectares of land within the FUDAs in these figures.
- 42 To verify the amount of land contained with the FUDAs, which seem to differ between the HBA's two density scenarios, I used Canterbury Maps to trace their outlines. The results show that these FUDAs span roughly 462 hectares in total.
- 43 Herein lies the problem. As discussed just above, not all land in these FUDAs will be available for residential development, with some instead required for roads, reserves, and other infrastructure that is expressly excluded from the definition of net density in the Canterbury Regional Policy Statement and which dictates the 12 dwellings per hectare target. Consequently, the estimates of feasible capacity residing in the FUDAs need to be scaled down too in order to allow for the land required by these excluded features.
- 44 Because the assumed yields of 12 to 15 dwellings per hectare for the FUDAs reflect net densities, they already account for local roads and reserves etc. To account for other non-residential land uses – such as arterial roads, stormwater areas, commercial activities, schools, and so on – I understand that the FUDA yields should be scaled down by about 15%.
- 45 Another significant issue that seriously undermines the veracity of the HBA's estimates of feasible development capacity is the profit margin that is assumed to be required by developers.
- 46 According to official guidance published by MBIE, feasibility assessments should adopt a default development margin of 20%, with this value altered only upon review from the development community.
- 47 In my 20 years of working with developers and other property professionals, this target return is accurate, although many developers target a higher return of around 25% to reflect the significant risks associated with property development.
- 48 The analysis underpinning the latest HBA for Selwyn, however, adopts a far lower development margin of only 6.6%. This much smaller margin, in turn, lowers the financial hurdle required for hypothetical developments to be considered commercially feasible, and therefore directly overstates likely future dwelling supply.

- 49 Interestingly, bullet 2 in appendix 3 of the HBA acknowledges that a 20% development margin is recommended by MBIE, but notes that the assessment has departed from it “to better recognize local and actual market parameters.”
- 50 I am unaware of any basis for this assertion. Indeed, I am unaware of any developers in the Greater Christchurch area that would risk millions of dollars of their own capital to potentially earn a 6.6% development margin. Nor am I aware of any lenders that would inject capital into a venture where the profit margins are so thin and hence the project is at risk of potential default. Interestingly, this inexplicably low profit margin also was not reviewed or endorsed by the development community, as required by official guidance.
- 51 To put it in context, a target return of 6.6% could only ever be considered a “black swan” scenario that might be used to assess the absolute worst case, but it would never be used as the baseline assumption. It simply makes no sense, so I dug deeper to better understand the origins of this rather unusual and misleading assumption.
- 52 My query was answered on page 50 of the HBA, where the authors cite data from Stats New Zealand, which allegedly showed a development margin of only 6.6% for house construction.
- 53 I then obtained a copy of that data from Stats NZ and identified the 6.6% figure to put it in context. Regrettably, the HBA’s authors appear to have mistaken two similar but entirely different financial metrics.
- 54 The first metric is the development margin, which is the profit that a developer seeks to earn over and above their costs for a given project. The second is net profit after tax, or NPAT, which measures the profit earned by a venture when all costs – including taxes – are deducted.
- 55 In short, it appears that the HBA’s authors have mistakenly used the NPAT figure from those financial data and assumed that it equals the developer margin. However, NPAT accounts for a wide range of costs that do not feed into the calculation of developer margins, such as fixed operating costs, depreciation, amortization, and income tax.
- 56 The upshot of all this is that the HBA has used an inordinately low developer margin to calculate the commercial feasibility of building new homes in the district, and therefore has significantly overstated the true extent of feasible development capacity. These figures are at least an improvement on the previous HBA, however, which oddly assumed that all plan-enabled capacity would be commercially feasible to develop.

- 57 In addition, I recently became aware that the model used to estimate feasible capacity contains several anomalies or inconsistencies, which further overstate district dwelling capacity. Specifically, the model:
- 57.1 Appears to count capacity residing outside of the Greater Christchurch urban environment as defined by the NPSUD, such as the 144 lots included at Castle Hill (parcel ID 7971519). Overall, more than 1,000 lots outside the urban environment appear to have been included.
 - 57.2 Assumes that some district reserves will be developed for residential purposes. e.g. the Stonebrook subdivision water race is assumed to provide 6 infill sites (parcel ID 7703161 & 7703159).
 - 57.3 Includes residential capacity on developed non-residential sites. For example, the model assumes that the Kindergarten at 76-80 Granite drive can provide 2 infill sites, which is highly unlikely given the acute need for early childhood education provision in Rolleston. (parcel IDs 7636983 & 7636981).
- 58 To summarise, not only has the HBA understated likely future demand, but its estimates of feasible capacity are grossly overstated for several reasons. Collectively, these issues mean that the forecast shortfall in capacity identified in the HBA is likely to occur far sooner than expected.
- 59 However, that is not all. There is still yet another pressing issue. It relates to the relationship between feasible capacity, which is reported in the HBA, and likely market supply (which is ultimately tasked with meeting increased demand over time).
- 60 In short, while feasible capacity is an interesting metric, it should not be confused with market supply. There are several reasons why feasible capacity may not form part of market supply, particularly over the short to medium term. They include:
- 60.1 *Developer intentions* - some landowners have no clear intention to develop in the short- to medium-term, nor to sell their land to others who may wish to develop it.
 - 60.2 *Tax implications* – greenfield land-owners are liable for taxes on land value uplifts caused by rezoning. These taxes are greatest in the first year following rezoning, but gradually diminish over time and cease 10 years later. In some cases, efforts to avoid or minimise these taxes could cause land to be withheld from the market for up to a decade.

- 60.3 *Land banking and drip-feeding* – other landowners intend to develop in future, but are currently withholding supply to capitalise on inevitable land price inflation, while some are drip-feeding supply to maintain prices and hence maximise returns.
- 60.4 *Site constraints* – the Council’s estimates of likely supply appear to consider only infrastructure as a potential site constraint and therefore overlook other factors that affect developability, such as contamination or awkward site shape/topography.
- 60.5 *Operational capacity* – some landowners face operational capacity constraints, which limit the number of new residential lots that they can supply per annum.
- 60.6 *Financing* – similarly, some landowners face capital/financing constraints that also limit their ability to supply.
- 61 Given these various market forces, it follows that actual market supply will only ever be a modest proportion of feasible capacity, and hence that reliance on “just enough” feasible capacity to meet demand will invariably lead to significant and prolonged market shortages.⁶
- 62 To provide a more reliable basis for assessing the adequacy, or otherwise, of the district’s current land supply, I recreated my table 1 above to reflect the various supply/demand issues just discussed.
- 63 These revised supply/demand estimates take Table 1 as their starting point, and incorporate the following adjustments:
- 63.1 Short-term demand equals 80% of the number of new consents granted in the district over the last 5 years (plus a 20% competitiveness margin).
- 63.2 Medium term demand equals 70% of the number of new consents granted in the district over the last 5 years (plus a 20% competitiveness margin).
- 63.3 Long term demand equals 60% of the number of new consents granted in the district over the last 5 years (plus a 15% competitiveness margin).

⁶ This is confirmed in the PC67 evidence of Mr Gary Sellars (registered valuer), who identified only 34 sections currently available – or about to become available – for sale in Rolleston. This is only a tiny fraction of the Council’s latest estimates of feasible capacity for Rolleston, which is supposedly more than 2,000 dwellings.

- 63.4 The FUDAs are excluded from medium-term capacity because they do not meet the definitions in section 3.4 of the NPSUD.
- 63.5 65% of land residing in existing greenfield areas will be available for residential development, with the other 35% used for roads, reserves, and commercial activities.⁷ For the FUDAs, 85% of the land will be available for residential development.
- 63.6 Likely market supply equals 60% of short-term feasible capacity, 75% of medium-term, and 90% of long-term. This reflects the fact that the various market constraints identified at para 60 above are typically more acute in the short-term but less so in the longer term.
- 63.7 No adjustments are made for the inordinately low developer margin of 6.6% because it is impossible to identify the impacts on feasible capacity. Neither are any adjustments made for the various modelling inconsistencies noted at para 57. Accordingly, my revised totals are conservative and continue to overstate feasible capacity and hence likely market supply.
- 63.8 Sufficiency is based on the relationship between demand and likely market supply, not demand and feasible capacity.
- 64 Bearing these adjustments in mind, Table 3 presents my revised dwelling supply/demand estimates for the district.

⁷ Further, 80% of existing feasible capacity is assumed to be within the district's greenfield areas, and 20% within infill areas.

Table 3: Revised Dwelling Supply/Demand Estimates

Scenario 1: Excluding Future Urban Development Areas (FUDAs)				
<u>Timeframes</u>	<u>Feasible Capacity</u>	<u>Likely Market Supply</u>	<u>Demand incl buffer</u>	<u>Surplus/Shortfall</u>
Short Term	4,090	2,454	3,886	-1,432
Medium term	5,764	4,323	11,819	-7,496
Long term	5,764	5,187	30,438	-25,251
Scenario 2: Including Future Urban Development Areas (FUDAs) @ 12.5 hh/ha				
<u>Timeframes</u>	<u>Feasible Capacity</u>	<u>Likely Market Supply</u>	<u>Demand incl buffer</u>	<u>Surplus/Shortfall</u>
Short Term	4,090	2,454	3,886	-1,432
Medium term	5,764	4,323	11,819	-7,496
Long term	10,656	9,591	30,438	-20,847
Scenario 3: Including Future Urban Development Areas (FUDAs) @ 15 hh/ha				
<u>Timeframes</u>	<u>Feasible Capacity</u>	<u>Likely Market Supply</u>	<u>Demand incl buffer</u>	<u>Surplus/Shortfall</u>
Short Term	4,090	2,454	3,886	-1,432
Medium term	5,764	4,323	11,819	-7,496
Long term	11,756	10,581	30,438	-19,857

- 65 Table 3 confirms that, when the Council's supply and demand estimates are revised to better reflect reality, there are significant shortfalls across all three timeframes. Accordingly, additional supply needs to be identified and rezoned as soon as possible (despite the findings of the HBA). Otherwise, the likely prolonged supply shortfalls will place undue pressure on house prices, which undermines affordability and limits the district's strong growth potential.
- 66 Notably, even the Growth Capacity Report by Ben Baird (dated 1 October 2021, and appended to the section 42A report for this plan change) identifies a significant shortfall in the Lincoln submarket. For example, the table below shows Mr Baird's estimates of demand and capacity for additional dwellings in Lincoln over the medium term (3-10 years), and long term (10-30 years).

Table 4: Supply/Demand Balance for Lincoln

Additional Dwellings	Medium Term	Long Term
Capacity	1,461	1,461
Demand	1,774	5,267
Surplus/Shortfall	-313	-3,806

- 67 The shortfall of more than 3,800 dwellings identified over the longer term by Mr Baird is nearly double the capacity of this plan change,

and it is the only one mooted for Lincoln. Thus, not only is this plan change required to meet the long-term shortfall identified, but a shortfall of more than 1,800 will still remain over the longer term even if it is granted. Clearly, there is a need for additional capacity in this location, which the plan change acknowledges and responds to.

- 68 Further, given the very long lead times associated with large-scale property development, it is prudent to begin planning for longer term requirements now to ensure that projected deficits do not unduly restrict local opportunities and place additional pressure on housing affordability.

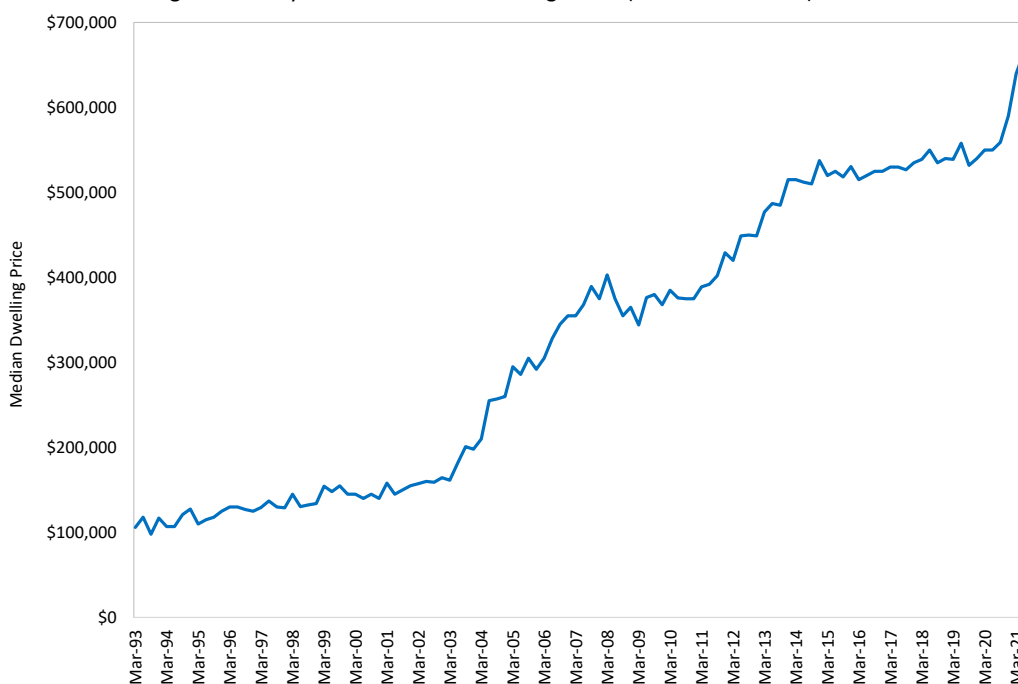
THE COST AND BENEFITS OF THE PLAN CHANGE

- 69 Having established above that there is a pressing near-term need to identify and rezone additional land to meet forecast growth in demand, I now consider the likely economic costs and benefits of the plan change.

Boost in Market Supply

- 70 Perhaps somewhat obviously, the proposed plan change will provide a substantial, direct boost in the district's dwelling capacity, thereby helping to narrow the gap between likely future supply and demand.
- 71 All other things being equal, this supply boost will help the market to be more responsive to growth in demand, thereby reducing the rate at which district house prices grow over time (relative to the status quo).
- 72 Further, although the district's housing has been reasonably affordable compared to other parts of New Zealand in the past, its prices have surged recently. This is illustrated in the chart below, which incorporates the latest data published under the NPSUD to 30 June 2021.

Figure 4: Selwyn District Median Dwelling Prices (from NPSUD Data)



- 73 Figure 4 confirms that district dwelling prices have increased steadily over time, but recently shot up after a prolonged period of consolidation. In fact, they increased 21% over the 12 months ended 30 June 2021, which will likely be starting to reduce affordability.
- 74 Even prior to this recent spike in house prices, district housing had started to become relatively unaffordable. For example, the latest affordability report by Core Logic (30 June 2021)⁸ showed that the median house price was 7.3 times the median household income. By comparison, the benchmark for affordability is a ratio of only three.
- 75 In addition, the latest Core Logic report showed that it takes about 9.8 years to save the deposit for a new home in Selwyn. Thus, not only are house prices themselves increasingly unaffordable, but even the task of saving the deposit for a new home is an onerous one that is starting to become well beyond the reach of many households.
- 76 The plan change directly responds to this need for additional dwelling capacity by enabling the development of approximately 2,000 new homes over time (plus supporting commercial activity).
- 77 In my view, and from an economic perspective, this represents a highly significant boost in supply. To assess whether this satisfies

⁸ https://www.corelogic.co.nz/sites/default/files/2021-09/210909_CoreLogicNZ_Housing-Affordability-Report_Q2_FINAL.pdf

the definition of “significant” in clause 3.8 of the NPSUD (which relates to unanticipated or out-of-sequence plan changes), I reviewed the latest HBA. At page 10, it discusses consultation with the development community (during the course of writing the HBA) and describes landowners that could develop 20 or more dwellings as being significant.

- 78 As such (and particularly given the shortfalls I have described), I consider that the proposed development of approximately 2,000 dwellings on the subject site represent an extremely significant increase in capacity for the Selwyn district, from both an economic and market perspective and by virtue of the way that term is used in the HBA (and by extension how it might be considered for the purposes of clause 3.8 of the NPSUD).
- 79 To put the supply boost in context, I note that the approximately 2,000 new lots provided would increase likely short-term district supply by 81%, and medium term by 46%.⁹ I consider this a very significant contribution, especially from just one development.

Land Market Competition

- 80 In addition to directly boosting district dwelling capacity, the proposed plan change will also help to foster competition in the local land market. This is important because, as recognised through objective 2 of the NPSUD, competition is the cornerstone of economic efficiency. When the land market becomes more competitive, land developers have a greater incentive to get their product to the market in a more timely and cost-effective manner, thus further helping to keep district housing as affordable as possible.
- 81 Absent competition, landowners experience “market power”, which enables them to charge more for land and be slower in releasing it to the market. Both outcomes conspire against affordability and reduce the overall efficiency of the housing market. Indeed, this sort of market power is likely to explain some of the rapid growth in land and dwelling prices over the last 12 months, as shown in Figure 4 above.
- 82 Moreover, not only do the direct boost in supply and increased land market competition (discussed above and created by the proposal) have direct economic benefits by making land and dwellings more affordable than they would have been otherwise, they can also have broader impacts.

⁹ Based on the likely short term supply estimate of 2,454 dwellings in Table 3, and the medium term figure of 4,323.

83 Specifically, by reducing the rate at which dwelling prices grow, future residents will spend less on weekly rent or mortgage payments than they would have otherwise, which will boost disposable incomes. With a significant proportion of that extra money likely to be spent locally, lower future dwelling prices (relative to the status quo) will also create additional economic stimulus for the wider benefit of the local area through increased household spending over time.

Helps Provide for a Range of Housing Typologies

84 The NPSUD requires high growth areas, like Selwyn, to not only provide at least sufficient capacity to meet future demand in aggregate, but to also provide a range of housing typologies to meet a wide range of needs and preferences.

85 This is shown in the excerpt below, which displays the first part of policy 1 of the NPSUD:

Table 5: Policy 1 of the NPSUD

<p>2.2 Policies</p> <p>Policy 1: Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum:</p> <p>(a) have or enable a variety of homes that:</p> <p>(i) meet the needs, in terms of type, price, and location, of different households; and</p>

86 As some readers may be aware, people that live and work in Lincoln tend to have different demographics to the rest of the district, partly due to the University located there. These demographic differences are highlighted in Table 6, which compare Lincoln residents and households to the (i) district average, (ii) regional average, and (iii) national average, respectively.

Table 6: Demographic Comparison

	Lincoln	Rest of Selwyn	Canterbury Region	NZ Average
Summary statistics				
Households	2,136	18,501	224,259	1,653,792
Usually Resident Population	6,510	54,060	596,925	4,699,755
Average Household Size	3.05	2.92	2.66	2.84
Median age	36	41	40	37
Age in broad groups				
Under 15 years	21%	22%	18%	20%
15-29 years	22%	17%	20%	21%
30-64 years	44%	49%	45%	45%
65 years and over	13%	11%	16%	15%
Ethnic group				
Asian	11%	5%	10%	13%
European	78%	82%	75%	62%
Māori	5%	7%	9%	15%
Middle Eastern Latino, African	2%	1%	1%	1%
Other Ethnicity	1%	2%	1%	1%
Pacific Peoples	1%	2%	3%	7%
New Zealander	1%	1%	1%	1%
Years at usual residence				
0 years	31%	19%	21%	20%
1-4 years	42%	39%	34%	34%
5-9 years	13%	18%	17%	17%
10-14 years	8%	11%	11%	11%
15-29 years	4%	10%	12%	13%
30 years or more	1%	3%	5%	5%
Partnership status in current relationship				
Partnered	66%	73%	62%	61%
Non partnered	34%	27%	38%	39%
Number of children born				
No children	35%	28%	32%	32%
One child	12%	13%	13%	13%
Two children	30%	33%	28%	27%
Three children	16%	18%	17%	16%
Four children	5%	6%	7%	7%
Five children	1%	2%	2%	3%
Six or more children	1%	1%	1%	2%
cigarette smoking behaviour				
Regular smoker	6%	10%	12%	13%
Ex-smoker	18%	23%	23%	22%
Never smoked regularly	76%	67%	65%	65%

- 87 Table 6 confirms that Lincoln residents and households have different attributes to the district average. Specifically, compared to the district average, Lincoln residents are more likely to:

- 87.1 Live in larger households (3.05 vs 2.92);
- 87.2 Be aged 15 to 29 years old (22% vs 17%);
- 87.3 Be of Asian descent (11% vs 5%);
- 87.4 Be non-partnered (34% vs 27%);
- 87.5 Have lived in their home for less than 5 years (73% vs 57%);
- 87.6 Have no children (35% vs 28%); and
- 87.7 Never have smoked regularly (76% vs 67%).
- 88 Perhaps unsurprisingly, Lincoln residents also have different study and work traits to the district average, as outlined in the next table.

Table 7: Comparison of Work and Study Traits

	Lincoln	Rest of Selwyn	Canterbury Region	NZ Average
Study participation				
Part time study	2%	3%	3%	3%
Full time study	33%	22%	20%	21%
Not studying	65%	75%	77%	76%
Work and labour force status				
Employed Full time	48%	59%	51%	50%
Employed Part time	18%	16%	15%	15%
Not in the Labour Force	30%	22%	30%	31%
Unemployed	4%	2%	3%	4%
Occupation				
Clerical and Administrative Workers	13%	12%	11%	11%
Community & Personal Service	9%	9%	9%	10%
Professionals	27%	19%	21%	23%
Sales Workers	10%	8%	9%	9%
Labourers	7%	10%	12%	11%
Machinery Operators and Drivers	3%	7%	7%	6%
Managers	20%	23%	18%	18%
Technicians and Trades Workers	10%	13%	14%	12%
Main means of travel to education				
Bicycle	6%	7%	8%	4%
Drive a car, truck or van	16%	8%	13%	11%
Passenger in a car, truck or van	27%	41%	37%	39%
Public bus	4%	3%	7%	7%
School bus	15%	17%	8%	10%
Ferry	0%	0%	0%	0%
Other	1%	2%	2%	1%
Study at home	3%	8%	6%	5%
Train	0%	0%	0%	2%
Walk or jog	28%	14%	20%	20%

- 89 Table 7 shows that Lincoln residents have different average work and study habits to the rest of the district. Specifically, compared to the district average, Lincoln residents are more likely to:
- 89.1 Be studying full-time (33% vs 22%);
 - 89.2 Be out of the labour force (30% vs 22%);
 - 89.3 Work as professionals (27% vs 19%); and
 - 89.4 Walk or jog to their place of study (28% vs 14%).
- 90 In addition, Census data confirm that dwellings in Lincoln also differ to the district average. For example, Lincoln dwellings are far less likely to be one-bedroom, and far less likely to burn wood as their primary heating fuel.
- 91 These differences confirm that people and households based in Lincoln are not like the district average, and hence that they effectively form their own district housing sub-market.
- 92 Moreover, according to my recent scans of various online property websites, there are only a small handful of vacant sections currently available in Lincoln (mostly in the Te Whariki subdivision).
- 93 Accordingly, not only does the proposal make a significant contribution to both Lincoln, specifically and the district overall (as per para 79), but it also helps give effect to policy 1, which requires Councils to provide various housing choices to meet a diverse range of needs and preferences.

Critical Mass to Support Greater Local Retail/Service Provision

- 94 Currently, Selwyn district residents rely heavily on centres in Christchurch City to meet their daily household needs. For example, the table below shows the destination of Selwyn district resident spend in 2019 using detailed Marketview data provided to us by Waimakariri District Council on a recent, separate matter.

Table 8: Destination of Selwyn District Resident Spend in 2019

Spending Categories	Selwyn District	CHCH City	Rest of Region	Rest of NZ	Total
Apparel and Personal	15%	73%	3%	10%	100%
Cafes, Restaurants, Bars, Takeaways	31%	47%	6%	15%	100%
Department Stores and Leisure	16%	73%	3%	8%	100%
Fuel & Automotive	44%	40%	8%	8%	100%
Groceries & Liquor	50%	39%	4%	6%	100%
Home, Hardware & Electrical	10%	80%	3%	6%	100%
Other Consumer Spending	18%	58%	6%	18%	100%
All Categories	34%	52%	5%	9%	100%

- 95 Table 8 shows that only a third of Selwyn resident spend is retained in the district, with more than half leaking out to Christchurch City. While some of that city spending may occur before, during, or after working there, others reflect specific trips.
- 96 By enabling the resident population to grow, including via additional development on the subject site, the district will eventually be able to support greater local retail/service provision and hence be less reliant on the city to meet its household needs.
- 97 This, in turn, will not only support greater district economic activity and hence employment, but also reduce vehicle travel and the harmful emissions associated with it.
- 98 More specifically, greater district critical mass – including at the subject site – will help the Council and community to realise its ambitions for a renewed Rolleston Town Centre, thereby elevating its current status as a lower-order KAC to a fully-functioning town centre that fulfils a wider range of roles and functions.
- 99 To put this in context, I estimated likely future spending originating on the subject site at full build-out by applying regional average spending from the latest Household Economic Survey. The results are tabulated below, and reflect total annual spending by 2,000 new households. To be conservative, these estimates ignore ongoing growth in annual household spending over time.

Table 9: Projected Future Spending Originating Onsite

Expenditure Group	Annual Spend per Household	Total Annual Spend (\$ millions)
Food	\$12,270	\$24.5
Alcoholic beverages, tobacco, and illicit drugs	\$1,650	\$3.3
Clothing and footwear	\$2,400	\$4.8
Housing and household utilities	\$15,510	\$31.0
Household contents and services	\$2,360	\$4.7
Health	\$2,050	\$4.1
Transport	\$10,680	\$21.4
Communication	\$1,850	\$3.7
Recreation and culture	\$6,570	\$13.1
Education	\$1,060	\$2.1
Miscellaneous goods and services	\$6,340	\$12.7
Other expenditure	\$7,820	\$15.6
Total Household Expenditure	\$70,560	\$141.1

- 100 Table 9 shows that future households on the subject site will spend more than \$141 million per annum on a wide range of household goods and services, many of which will likely be purchased from the Rolleston Town Centre. Accordingly, future development of the land will provide significant commercial support for Rolleston businesses.

- 101 In addition, future residents of the plan change area will help create critical mass to support the provision of improved public transport facilities and services over time.

One-Off Economic Stimulus

- 102 Constructing the approximately 2,000 new homes enabled by the proposal will generate significant one-off economic impacts.
- 103 I quantified these using a technique called multiplier analysis, which is based on detailed matrices called input-output tables. These tables describe the various supply chains that comprise an economy, and therefore enable the wider economic impacts of a change in one sector (or sectors) to be traced through to estimate the overall impacts.¹⁰
- 104 These impacts include:
- 104.1 *Direct effects* – which capture onsite activities directly enabled by the proposal; plus
 - 104.2 *Indirect effects* – which arise when businesses working directly on the project source goods and services from their suppliers, who in turn may need to source good/services from their own suppliers, and so on; and
 - 104.3 *Induced effects* – which occur when a share of the additional wages and salaries generated by the project (directly or indirectly) are spent in the local/regional economy and therefore give rise to additional rounds of economic impacts.
- 105 These economic effects are usually measured in terms of:
- 105.1 *Contributions to value-added (or GDP)*. GDP measures the difference between a firm's outputs and the value of its inputs (excluding wages/salaries). It captures the value that a business adds to its inputs to produce its own outputs.
 - 105.2 *The number of people employed* – this is measured in terms of employment counts, which include both part-time and full-time workers, because Statistics New Zealand does not provide data on full-time equivalent employees (FTEs).

¹⁰ The multipliers used here are for the Canterbury region, and were derived by my organization. They are widely used by a range of public and private organisations across New Zealand, including Lincoln University.

105.3 *Total wages and salaries* paid to workers, which are often labelled 'household incomes.'

- 106 Having defined these key terms, the following table shows the estimated economic impacts of the various activities enabled by the proposal.

Table 10: One-Off Regional Economic Impacts of Construction

Economic Impact Measures	Direct	Indirect	Induced	Total
Regional GDP (\$ millions)	\$210	\$144	\$76	\$430
Employment (people-years) ¹¹	\$2,315	\$1,590	\$745	\$4,650
Wages/Salaries (\$ millions)	\$115	\$75	\$30	\$220

- 107 In summary, I estimate that future construction activity enabled by the proposal could boost regional GDP by \$430 million, including flow on effects, generate employment for 4,650 people years, and generate \$220 million in household incomes.
- 108 Assuming (say) a 10-year construction period, these translate to annual impacts of \$43 million in regional GDP, including flow on effects, full time employment for 465 people, and \$22 million in household incomes.

RESPONSE TO SECTION 42A REPORT

- 109 Paragraph 98 of the section 42A report identifies the need to upgrade certain infrastructure to accommodate the increased demands caused by the proposed development. Such upgrades are common for new developments, particularly larger ones like PC69. However, the Council has a range of funding tools that it can use to ensure that these costs are fully recovered from the applicant, and not from the wider rating base. They include:

109.1 development contributions and/or a private development agreement under the Local Government Act 2002;

109.2 targeted rates under the Local Government Rating Act 2002;
or

109.3 the new infrastructure funding and financing tools enacted last year.

¹¹ One person-year means one person employed for a full year. Hence, 100 people-years could mean 100 people employed for one year, 50 people employed for 2 years, and so on.

- 110 Accordingly, there will be no financial impacts on the wider community of completing these enabling works.”

RESPONSE TO SUBMISSIONS

- 111 Environment Canterbury (ECan) and Christchurch City Council (CCC) both oppose the plan change. While many of their concerns relate to matters beyond my area of expertise, both submissions are predicated on the belief that there is already sufficient dwelling capacity to meet demand, particularly at the sub-regional level.
- 112 For example, para 33 of the ECan submission argues that “Further development capacity in Lincoln is not required to meet medium and long term housing targets, identified in Our Space 2018–2048 and expressed in the CRPS”
- 113 Similarly, para 13 of the CCC submission states “Development beyond the greenfield priority areas and the future development areas in Map A exceeds the amount of housing and business capacity required to meet medium and long term targets, identified in Our Space 2018–2048 Greater Christchurch Settlement Pattern Update Whakahāngai O Te Hōrapa Nohoanga and expressed in the CRPS. Thus additional capacity is in excess of what is needed. Development in these areas is not meeting a capacity”
- 114 As described in detail above, however, the latest estimates of district feasible capacity are fundamentally flawed. They contain a litany of conceptual and technical issues, which render them of limited inferential value. When those various issues are resolved to provide more accurate estimates of future supply, there are significant capacity shortfalls over all three NPSUD timeframes.
- 115 Accordingly, I disagree with the presumption of sufficient capacity upon which these submissions appear to rely.
- 116 The ECan and CCC submissions also infer that it is more appropriate to identify and plan for additional dwelling capacity via future HBAs, rather than via private plan changes.
- 117 I agree that the HBA process can be a useful avenue to provide for future capacity, but they are not the only way, nor necessarily the best.
- 118 The issue is timing. In short, with a 3-year gap between each HBA, and given the very long lead times associated with both land development and house construction, relying just on HBAs to address capacity shortfalls is, in my view, flawed.
- 119 A far more responsive approach is desirable, both from a market and regulatory (i.e. NPSUD) perspective.

CONCLUSION

- 120 This evidence has shown that the proposed development enabled by Plan Change 69 represents a highly significant boost in dwelling capacity, which will help keep pace with demand while also helping to meet NPSUD requirements. Overall, the proposal will generate a wide range of enduring economic benefits and avoid any material economic costs, such as foregone rural production. Accordingly, I support the proposal on economic grounds and see no reason to deny it.

Dated: 4 November 2021

Fraser Colegrave