

Before the Selwyn District Council

under: the Resource Management Act 1991

in the matter of: Proposed Private Plan Changes 81 and 82 to the
Operative District Plan: Dunns Crossing Road, Rolleston

and: **Rolleston Industrial Developments Limited** and
Brookside Road Residential Limited
Applicant

Statement of Evidence of Fraser Colegrave (Economics)

Dated: 26 August 2022

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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 area 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 Hearings 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:
 - 7.1 The plan change application by Rolleston Industrial Developments Limited to rezone approximately 28 hectares of rural land in Rolleston to Living MD (PC81); and
 - 7.2 The plan change application by Brookside Road Residential Limited to rezone approximately 110 hectares of rural land in Rolleston to Living MD and Business 1 (PC82).

together the *Proposed Plan Changes*, and Rolleston Industrial Developments Limited and Brookside Road Residential Limited together the *Applicants*.

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 Changes.
 - 9.2 Past and future District population growth.
 - 9.3 Consideration of the need for the proposal according to the Council's requirements under the National Policy Statement On Urban Development 2020 (*NPSUD*).
 - 9.4 An assessment of the economic costs and benefits of the proposal, particularly in light of the perceived need for it according to my prior NPSUD analysis.

SUMMARY OF EVIDENCE

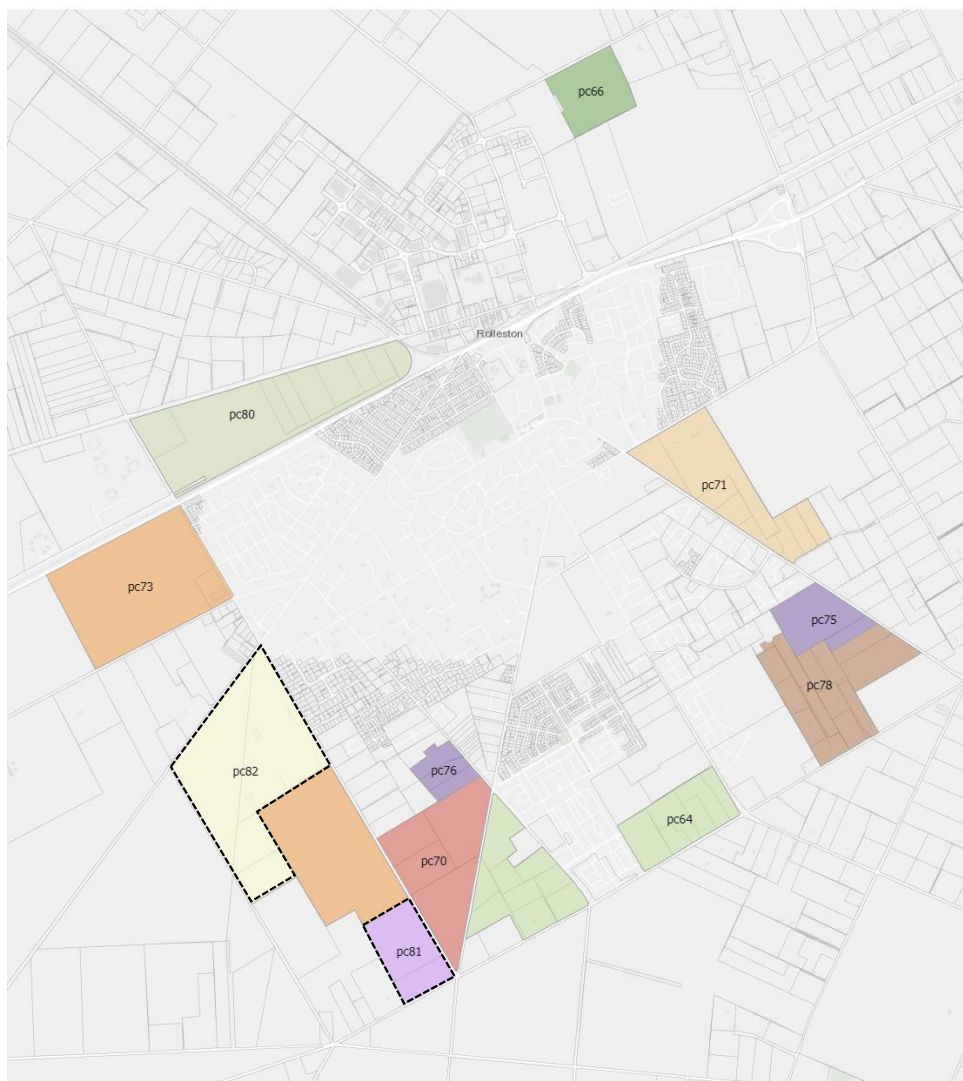
- 10 The Proposed Plan Changes seek to rezone approximately 138 hectares of land on the western outskirts of Rolleston to accommodate 1,670 dwellings and a small amount of supporting commercial activity.
- 11 This evidence shows that the Selwyn District Council is currently not meeting its obligations 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 Proposed Plan Changes will provide meaningful economic benefits, including:
- 14.1 Providing a substantial, direct boost in land/dwelling 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 Contributing to achieving critical mass to support greater local retail/service provision, including the community's vision for a renewed Rolleston Town Centre and improved public transport facilities/services; and
 - 14.4 The one-off economic stimulus associated with developing the land and constructing the dwellings that will be enabled there.
- 15 Conversely, the main economic cost of the Proposed Plan Changes is potential losses of rural production. However, given the site's relatively poor soils, this is inherently limited. In addition, future rural production is constrained by potential reverse sensitivity from nearby land and limits on irrigation capacity.
- 16 The only other possible economic cost is potential adverse effects of the four proposed commercial areas on role and function of the Rolleston town centre. However, at only 450m² of Gross Floor Area each, they are far too small to have any such effects.
- 17 Given the strong and enduring benefits of the Proposed Plan Changes, and noting the absence of any material economic costs, I support it on economic grounds.

ABOUT THE PROPOSED PLAN CHANGES

- 18 The Proposed Plan Changes seek to rezone approximately 138 hectares of land on the western outskirts of Rolleston to accommodate approximately 1,670 dwellings and a small amount of supporting commercial activity. The subject land is currently zoned as Living 3 Zone (rural residential zoning).
- 19 The map below identifies the site's location.

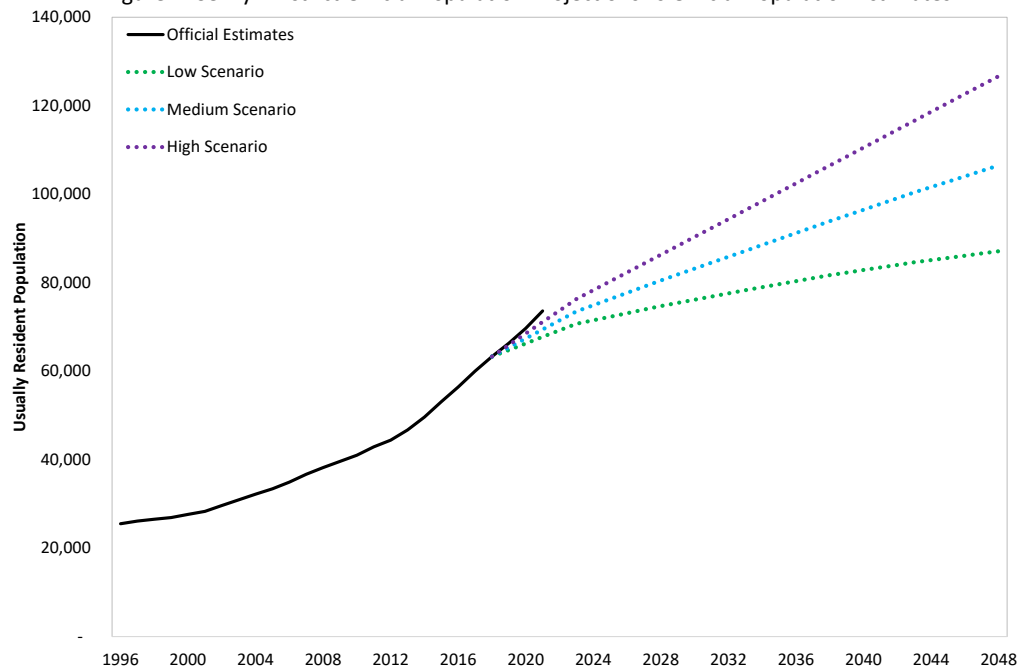
Figure 1: Location of Subject Sites (Dashed Black Outlines)



PAST AND FUTURE DISTRICT POPULATION GROWTH

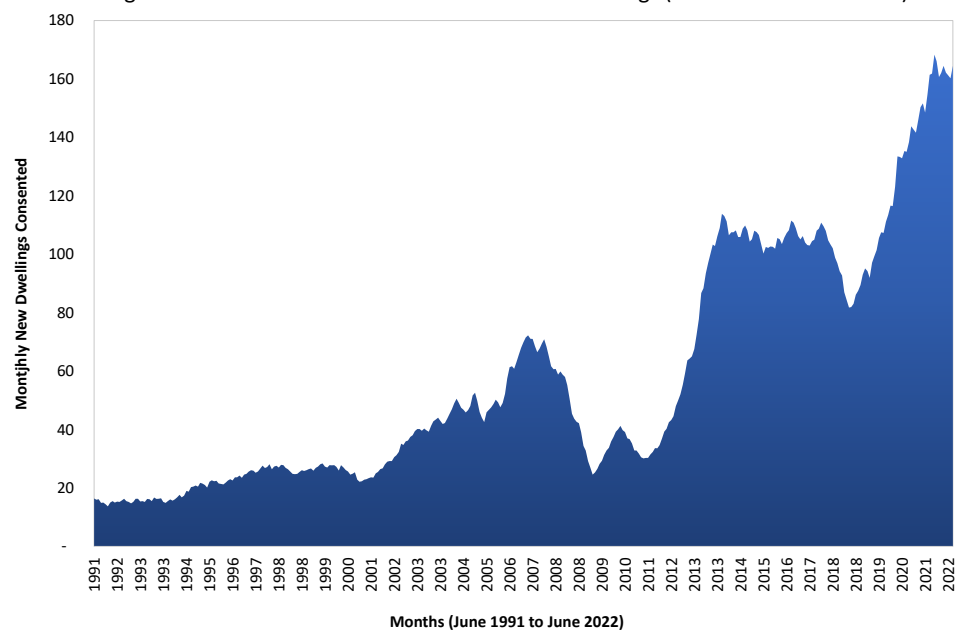
- 20 Selwyn is one of New Zealand's fastest growing areas. Over the last 25 years, its population growth rate was second only to Queenstown, and nearly 3.5 times the national average of 1.6% per annum.
- 21 According to official population projections, this rapid growth is set to continue, with Statistics New Zealand picking Selwyn to have the fastest population growth of all territorial authorities to 2048 under its low, medium, and high scenarios.
- 22 And, according to the latest population estimates to 30 June 2021, Selwyn is on track to exceed even Statistics New Zealand's high population growth scenario. This is illustrated in the chart below, which overlays the latest official population projections with official population estimates to 30 June 2021.

Figure 2: Selwyn District Official Population Projections vs Official Population Estimates



- 23 The District's rapid ongoing population growth is also (naturally) captured in building consent statistics. For example, the chart below shows the number of new dwellings consented in the District over the last 31 years (using a 12-month moving average). For the year ended 30 June 2022, 1,974 new dwellings were consented, with a record 210 consented in the month of June 2022 alone.

Figure 3: Consents for New District Residential Dwellings (June 1991 to June 2022)



- 24 Figure 3 shows that dwelling consents grew steadily between 1991 and 2007, then dropped sharply (presumably due to the GFC). They

remained subdued until about 2011/12, then picked up again after the Canterbury earthquakes. For the next four to five years (to about 2017), new consents remained at about 100 per month. However, they dipped again in 2018 before rebounding strongly to reach record highs in mid-2021, which have been maintained well into 2022.

- 25 In my opinion, this strong recent trend represents an enduring demand for living in Selwyn.

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

- 26 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.
- 27 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.
- 28 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, and where capacity shortfalls have historically been the most acute.
- 29 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.
- 30 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

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

- 31 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:
- 31.1 Excluding Rolleston's future development areas (*FUDAs*) (which were identified in the 2018-2048 Our Space strategy);
 - 31.2 Including Rolleston's FUDAs at a density of 12.5 households per hectare; and
 - 31.3 Including Rolleston's FUDAs at a density of 15 households per hectare.

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

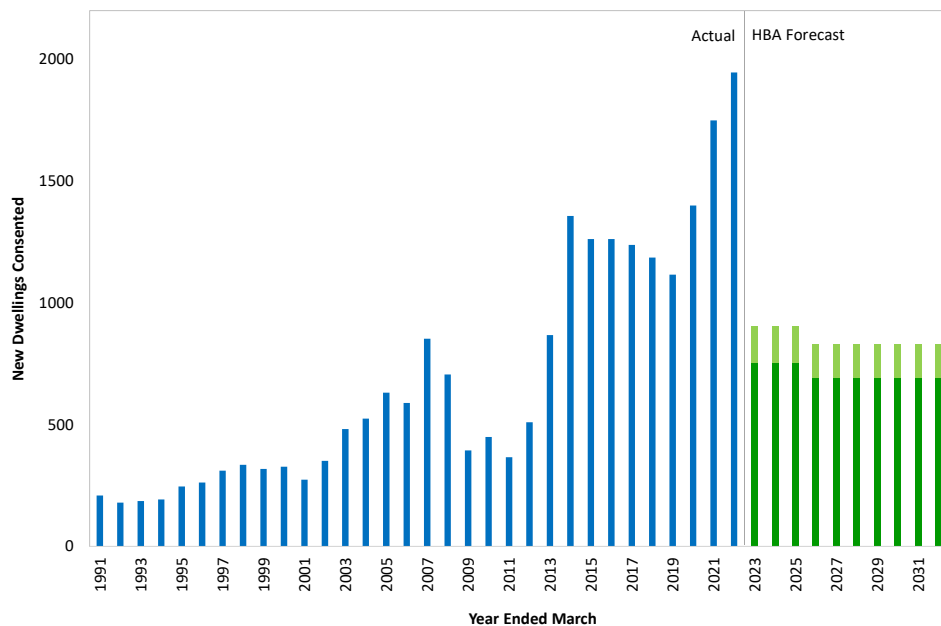
Scenario 1: Excluding Future Urban Development Areas (FUDAs)			
<u>Timeframes</u>	<u>Feasible Capacity</u>	<u>Demand incl buffer</u>	<u>Surplus/Shortfall</u>
Short Term	4,578	2,714	1,864
Medium term	6,452	8,541	2,089
Long term	6,452	25,338	18,886
Scenario 2: Including Future Urban Development Areas (FUDAs) @ 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

- 32 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.
- 33 While these latest dwelling supply/demand figures may 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.
- 34 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. In general, more is better.

- 35 Put slightly differently, the risks of land over-supply typically pale in comparison to the risks of undersupply, particularly since the cost and risk of providing local infrastructure can be directly shifted onto developers via development contributions (*DCs*) or private development agreements (thereby insulating the Council/community from undue financial risk).
- 36 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 – except Faringdon – so they cannot be considered in any medium-term development capacity assessment.
- 37 Third, 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. To put these in context, more than 970 new consents have already been granted in the first half of 2022.
- 38 Figure 4 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.

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.

Figure 4: Recent Building Consent Volumes vs HBA Demand Estimates³

- 39 Clearly, the HBA's forecasts of short- to medium-term future do not reflect recent trends and are thus highly likely to understate the true extent of future demand. For example, district building consents have averaged nearly 1,400 per annum since 2014, which is 53% higher than the HBA's short to medium term demand estimates including competitiveness margins of 20%.
- 40 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.
- 41 As noted in paragraph 23, 1,974 consents for new dwellings were granted in the district for the year ended 30 June 2022. This rate is more than double the short-term demand estimate of 900 additional dwellings adopted in the HBA (including competitiveness margins).
- 42 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.
- 43 First, when calculating feasible capacity in existing greenfield areas, the modelling assumes that 75% of the land will be available for

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

development.⁴ In FUDA areas, it assumes that all land will be available for development.

- 44 As discussed in **Appendix 1** to this evidence, I consider these assumptions unrealistic, and instead recommend that a 65% yield assumption be adopted for existing greenfield areas, and 85% for the FUDAs (based on recent studies and discussions with developers).
- 45 Another issue, which I also discuss in Appendix 1, is that the HBA's assumption of an inexplicably low profit margin on house construction. This contradicts MBIE's official guidance for feasibility modelling, and further distorts feasible capacity estimates.
- 46 Finally, the model used to estimate feasible capacity appears to contain several anomalies, which further overstate district dwelling capacity. This is covered in detail in the evidence of Mr Greg Akehurst. Specifically, the model:
 - 46.1 Appears to count capacity residing outside of the Greater Christchurch urban environment as defined by the NPSUD, such as Darfield and Leeston;
 - 46.2 Assumes that some district reserves will be developed for residential purposes; and
 - 46.3 Includes residential capacity on developed non-residential sites.⁵
- 47 To summarise, not only has the HBA understated likely future demand, but its estimates of feasible capacity are also overstated.
- 48 At the same time, it is critical to distinguish feasible capacity (as per the HBA) and likely market supply (which is ultimately tasked with meeting future demand).
- 49 Indeed, there are several reasons why feasible capacity may not form part of market supply, particularly over the short to medium term. They include:
 - 49.1 *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.

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

⁵ 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.

- 49.2 *Tax implications* – greenfield landowners are liable for taxes on recent land value uplifts caused by rezoning. These taxes are greatest in the first year following the rezoning, but gradually diminish over time and then 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.
- 49.3 *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.
- 49.4 *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.
- 49.5 *Operational capacity* – some landowners face operational capacity constraints, which limit the number of new residential lots that they can supply per annum.
- 49.6 *Financing* – similarly, some landowners face capital/financing constraints that also limit their ability to supply.
- 50 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.
- 51 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.
- 52 These revised supply/demand estimates take Table 1 as their starting point, and incorporate the following adjustments:
- 52.1 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).
- 52.2 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).
- 52.3 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).

- 52.4 The FUDAs are excluded from medium-term capacity because they do not meet the definitions in section 3.4 of the NPSUD, except for Faringdon, which is included in short/medium/long term supply due to recently becoming operative via Fast Track consent.
- 52.5 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.⁶ For the FUDAs, 85% of the land will be available for residential development.
- 52.6 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 paragraph 49 above are typically more acute in the short-term but less so in the longer term.
- 52.7 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 paragraph 46. Accordingly, my revised totals are conservative and continue to overstate feasible capacity and hence likely market supply.
- 52.8 Sufficiency is based on the relationship between demand and likely market supply, not demand and feasible capacity.
- 53 Bearing these adjustments in mind, Table 3 presents my revised dwelling supply/demand estimates for the District.

⁶ Further, 80% of existing feasible capacity is assumed to be within the district's greenfield areas, and 20% within infill areas.

Table 2: 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	5,060	3,036	3,886	-850
Medium term	6,734	5,050	11,819	-6,769
Long term	6,734	6,060	30,438	-24,378
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	5,060	3,036	3,886	-850
Medium term	6,734	5,050	11,819	-6,769
Long term	11,626	10,464	30,438	-19,974
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	5,060	3,036	3,886	-850
Medium term	6,734	5,050	11,819	-6,769
Long term	12,726	11,454	30,438	-18,984

- 54 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).
- 55 Even when the various private plan changes mooted for the District's townships – or recently made operative – outside the FUDA are included, there is still a significant shortfall over the long term.
- 56 For example, Table 4 shows that these private plan changes add more than 8,850 dwellings if all are accepted (including the plan changes that comprise this rezoning request). This is significantly less than the long-term supply shortfall of approximately 19,000 to 20,000 dwellings identified in scenarios 2 and 3 above.

Table 3: Capacity of Proposed Private Plan Changes Outside the FUDA

Plan Change	Inside FUDA	Status	Dwellings
63 - Darfield	No	Operative	440
67 – West Melton	No	Operative	131
68 – Prebbleton	No	Recommended to be approved	820
69 – Lincoln	No	Approved	2,000
71 – Rolleston	Partially	Still processing	660
72 – Prebbleton	No	Recommended to be approved	295
73 – Rolleston	No	Declined – subject to appeal	2,100
74 – West Melton	No	Still processing	130
77 – West Melton	No	Still processing	219
79 – Prebbleton	No	Still processing	400
81 – Rolleston	No	Still processing	350
82 - Rolleston	No	Still processing	1,320
Total			8,865

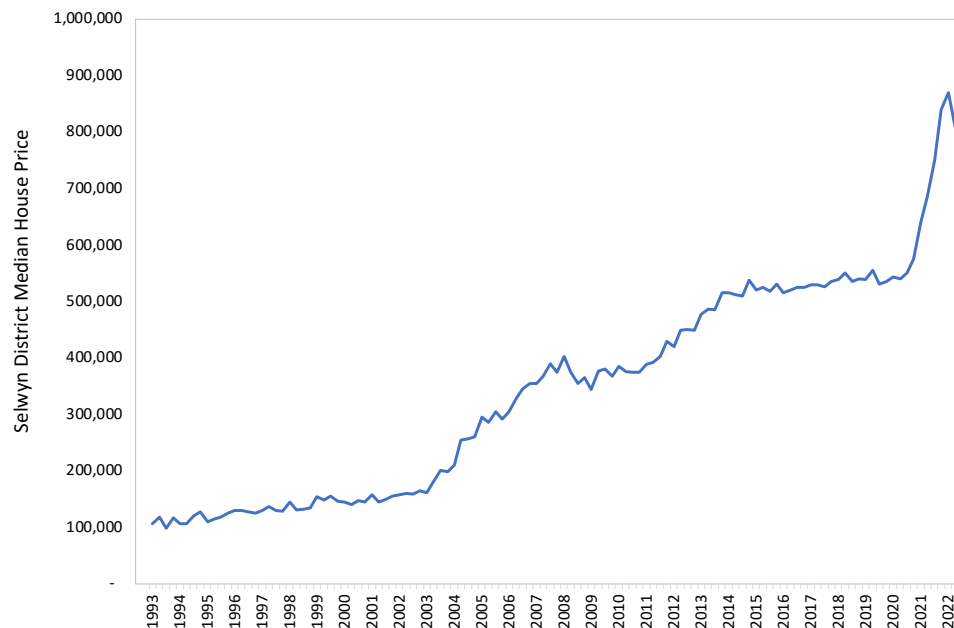
THE COST AND BENEFITS OF THE PROPOSED PLAN CHANGES

- 57 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 Proposed Plan Changes request.

Boost in Market Supply

- 58 Perhaps somewhat obviously, the Proposed Plan Changes will provide a substantial, direct boost in the District's dwelling capacity, thereby helping to narrow the gap between likely future supply and demand. In fact, the subject site(s) comprise more than 18% of the additional capacity proposed (or recently made operative) via proposed plan changes outside the FUDA (as per Table 4 above)
- 59 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).
- 60 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 2022.

Figure 5: Selwyn District Median Dwelling Prices (from NPSUD Data)



- 61 Figure 5 confirms that district dwelling prices have increased steadily over the longer term, but shot up over the last 2 or 3 years. In fact, they have increased 41% in the 18 months to June 2022, which is invariably reducing affordability.⁷
- 62 The latest affordability report by Core Logic (as at 31 December 2021)⁸ confirms the District's growing unaffordability issue, with the median district house price now 9.1 times the median household income. By comparison, the benchmark for affordability is a price:income ratio of only three.
- 63 In addition, the latest Core Logic report showed that it takes about 12.1 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 beyond the reach of many households.
- 64 The Proposed Plan Changes directly respond to this need for additional dwelling capacity by enabling the development of approximately 1,670 new homes over time (plus supporting commercial activity).
- 65 In my view, and from an economic perspective, this unambiguously represents a significant boost in supply. To assess whether it satisfies the definition of "significant" in clause 3.8 of the NPSUD (which relates to unanticipated or out-of-sequence plan changes), I

⁷ That said, prices have cooled in the last quarter, down from a record high of \$870,000 in March to \$810,000 in June (a fall of 7%).

⁸ <https://www.corelogic.co.nz/housing-affordability-report>

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.

66 As such (and particularly given the shortfalls I have described), I consider that the proposed development of approximately 1,670 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).

67 To put the supply boost in context, I note that the 3,770 new lots provided would increase likely short-term District supply by 55%, and medium term by 33%.⁹ I consider this a significant contribution.

Land Market Competition

68 In addition to directly boosting District dwelling capacity, the Proposed Plan Changes will also help to foster competition in the local land market.

69 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.

70 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 5 above.

71 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.

72 Specifically, by reducing the rate at which dwelling prices grow, future residents will spend less on weekly rent or mortgage

⁹ Based on the likely short term supply estimate of 3,036 dwellings in Table 3, and the medium term figure of 5,050.

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.

Critical Mass to Support Greater Local Retail/Service Provision

- 73 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 4: 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%

- 74 Table 4 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.
- 75 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.
- 76 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.
- 77 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.
- 78 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 1,670 new households. To be conservative, these estimates ignore ongoing growth in annual household spending over time.

Table 5: Projected Future Spending Originating Onsite

Expenditure Group	Annual Spend per Household	Total Annual Spend (\$ millions)
Food	\$12,270	\$20.5
Alcoholic beverages, tobacco, and illicit drugs	\$1,650	\$2.8
Clothing and footwear	\$2,400	\$4.0
Housing and household utilities	\$15,510	\$25.9
Household contents and services	\$2,360	\$3.9
Health	\$2,050	\$3.4
Transport	\$10,680	\$17.8
Communication	\$1,850	\$3.1
Recreation and culture	\$6,570	\$11.0
Education	\$1,060	\$1.8
Miscellaneous goods and services	\$6,340	\$10.6
Other expenditure	\$7,820	\$13.1
Total Household Expenditure	\$70,560	\$117.8

79 Table 5 shows that future households on the subject site will spend nearly \$118 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.

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

One-Off Economic Stimulus

81 Preparing the land for development, installing the necessary infrastructure, and constructing the 1,670 new homes enabled by the proposal will generate significant one-off economic impacts.

82 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

83 These impacts include:

¹⁰ The multipliers used here are for the national economy, and were derived by my organization using the latest 2020 IO tables by Statistics NZ.

- 83.1 *Direct effects* – which capture onsite activities directly enabled by the proposal; plus
 - 83.2 *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 goods/services from their own suppliers, and so on; and
 - 83.3 *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.
- 84 These economic effects are usually measured in terms of:
- 84.1 *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.
 - 84.2 *The number of people employed* – which is measured in terms of full-time equivalent employees (*FTEs*).
 - 84.3 *Total wages and salaries* paid to workers, which are often labelled 'household incomes.'
- 85 Having defined these key terms, the following table shows the estimated economic impacts of the various activities enabled by the proposed rezoning. Please note that these exclude induced effects, which are likely to represent diversions of spending that would have occurred elsewhere in the economy and therefore have limited (if any) net impacts.

Table 6: One-Off Regional Economic Impacts of Development

Planning/Design/Consent	Direct	Indirect	Total
FTEs – 12 months	5.6	2.7	8.3
GDP \$m	0.8	0.4	1.2
Wages/Salaries \$m	0.4	0.2	0.7
Land Development			
FTEs – 48 months	110	90	200
GDP \$m	55	50	105
Wages/Salaries \$m	25	25	50
Dwelling Construction			
FTEs – 120 months	80	240	320
GDP \$m	115	310	425
Wages/Salaries \$m	50	155	205

86 In summary, I estimate that:

- 86.1 Future planning/design/consenting work will create full time employment for about 8 people for 12 months, generating \$700,000 in wages/salaries
- 86.2 Land development (including infrastructure provision) will generate full time work for 200 people for four years (split across various stages), with \$50 million in wages/salaries paid.
- 86.3 Dwelling construction will provide full time work for 320 people for 10 years (again, split across various stages), with \$205 million paid in wages and salaries.

Foregone Rural Production

87 The main potential economic cost of the proposal is the loss of the land for rural production, namely agriculture and/or horticulture.

88 However, the subject site's soil falls into LUC Class 4. This means that the site's soil has:

"...severe physical limitations to arable use. These limitations substantially reduce the range of crops which can be grown and/or make intensive soil conservation and management necessary. In general, class 4 land is suitable only for occasional cropping (once in five years or less) although it is suitable for pasture, tree crops or production forestry. Some class 4 land is also suited to vineyards and berry fields".

89 I further note that, at just 138 hectares, the subject land comprises less than 0.025% of the District's total rural land.¹¹ Accordingly, the

¹¹ GIS files show that the district's rural areas span just over 6,300km². The subject site is less than 0.025% of this amount.

loss of this land for rural production will not undermine the District's economic potential, with an abundance of opportunities remaining elsewhere in the District.

Potential Adverse Impacts on the Rolleston KAC

- 90 The subject land will house two small local centres of up to 450m² GFA to help meet the daily needs of local households without the need for motor vehicle travel.
- 91 This raises the issue of whether or how those proposed commercial areas may adversely affect the role, function, health, or vitality of the District's primary commercial area – the Rolleston KAC.
- 92 The short answer is that the proposed commercial areas are far too small to have any discernible impacts.
- 93 For example, data published by Core Logic show that the Rolleston town centre currently comprises more than 27,000m² of GFA, including two supermarkets and a discount department store (the Warehouse). This is 30 times the combined size of the proposed commercial area, none of which will have supermarkets or other anchor tenants.
- 94 Consequently, the proposed commercial areas will have no material impacts on the town centre, and instead will fulfil much narrower – yet complementary – roles and functions.

RESPONSE TO SUBMISSIONS

- 95 I understand that Christchurch City Council (CCC) and Environment Canterbury (ECAN) continue to strongly oppose various rezoning proposals across the district, particularly those seeking to increase the amount of residential land – or density achievable – in Selwyn district.
- 96 While I acknowledge that CCC/ECAN's intentions are well-meaning, I consider their position to be based on unreliable information. For example, CCC/ECAN's opposition to further residential land being provided in the district appears to be predicated on the results of the 2021 HBA which, in this evidence, I thoroughly debunk. Accordingly, I strongly disagree with CCC/ECAN's position on the various plan changes currently being promulgated in the district.

CONCLUSION

- 97 This evidence has shown that the proposed development enabled by the Proposed Plan Changes represents a highly significant boost in dwelling capacity, which will help keep pace with demand while also helping Selwyn Council to meet NPSUD requirements.

- 98 Overall, the Proposed Plan Changes will generate a wide range of enduring economic benefits and avoid any material economic costs, such as foregone rural production. Accordingly, I support it on economic grounds and see no reason to deny it.

Dated: 26 August 2022

Fraser Colegrave

Appendix 1: Critique of Feasible Capacity Assumptions/Modelling

- 1 This appendix critiques various aspects of the Council's latest estimates of feasible dwelling capacity, as contained in the 2021 Housing Capacity Assessment.

Assumed Development Yields

- 2 When calculating the feasible capacity for new dwellings still residing in the Selwyn District's 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.¹² In FUDA areas, it assumes a 100% yield.
- 3 To ground-truth these assumptions, I reviewed a recent, detailed report on residential development densities by Harrison Grierson, which was commissioned by the GCP.¹³ It profiles the development outcomes achieved across various recent greenfield subdivisions, several of which were in Greater Christchurch.
- 4 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 7: 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%

- 5 I acknowledge that the proportion of land available for residential development varies across the case study areas in Table 7, and I also understand that geotechnical conditions are a key driver. For example, in low-lying, flood prone areas, more land is generally

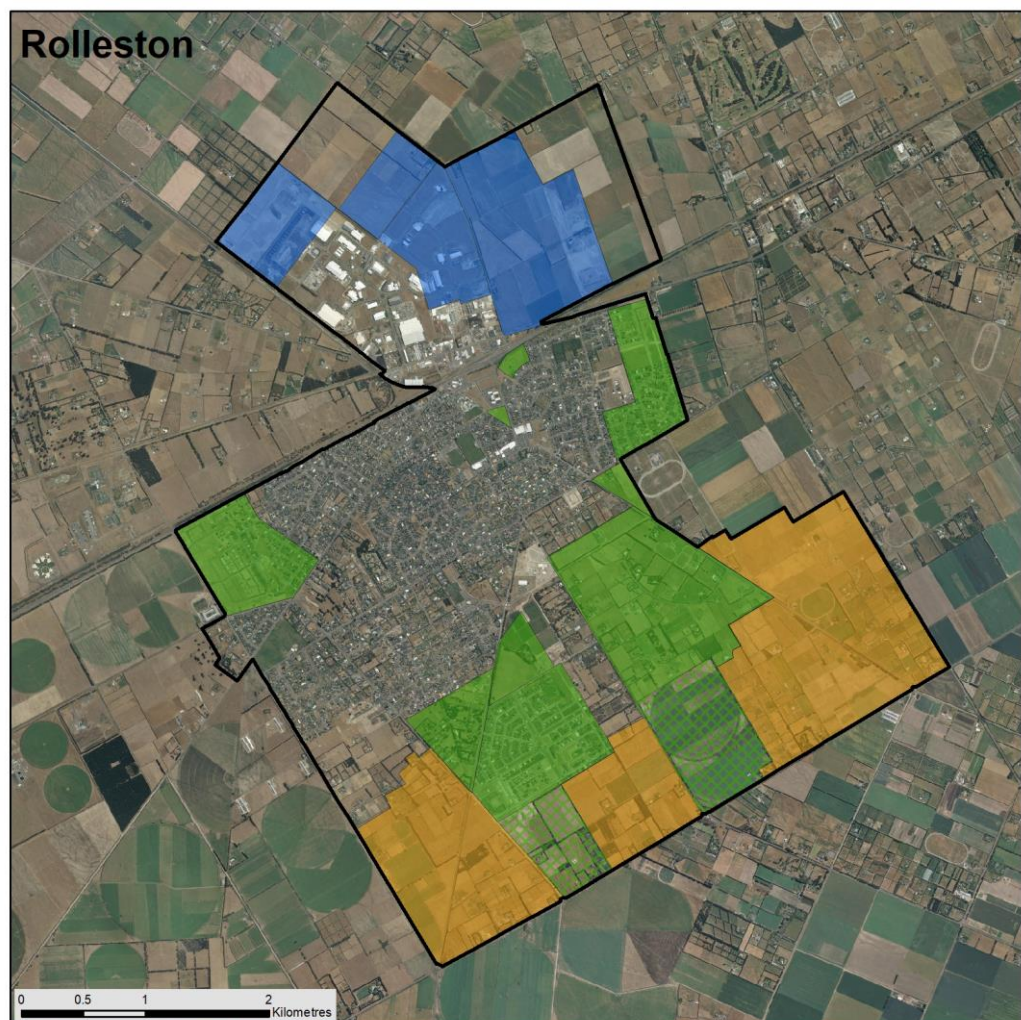
¹² See page 42 of the HBA (30 July 2021).

¹³ https://www.selwyn.govt.nz/_data/assets/pdf_file/0005/475466/UG-Chapter-Appendix-3-HG-Greenfield-Density-Analysis.pdf

needed for stormwater management, with less required in more elevated and well-drained areas.

- 6 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.
- 7 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 6: Map of Rolleston Future Urban Development Areas (FUDAs)



- 8 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.

- 9 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.
- 10 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.
- 11 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 to allow for the land required by these excluded features.
- 12 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%.

Assumed Profit Margin on House Construction

- 13 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.
- 14 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.
- 15 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.
- 16 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.

- 17 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."
- 18 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.
- 19 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 makes no sense, so I dug deeper to better understand its origins.
- 20 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.
- 21 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.
- 22 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 tax – are deducted.
- 23 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.
- 24 The upshot of all this is that the HBA has used an implausibly low developer margin to calculate the commercial feasibility of building new homes in the Selwyn District, and therefore has overstated the true extent of feasible development capacity. These figures are an improvement on the previous HBA, however, which assumed that all plan-enabled capacity would be commercially feasible to develop.