BEFORE AN INDEPENDENT HEARINGS COMMISSIONER
ON BEHALF OF SELWYN DISTRICT COUNCIL

UNDER	the Resource Management Act 1991
IN THE MATTER	a request by Hughes Development Limited for a private plan change to the Selwyn District Plan to rezone 163 Halkett Road and 1066 West Coast Road in West Melton for the development of approximately 124 lots
AND	**Hughes Development Limited** (Applicant)

EVIDENCE OF FRASER COLEGRAVE ON BEHALF OF HUGHES DEVELOPMENT LIMITED

Development Capacity and Economics

13 March 2023

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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 25 years' commercial experience, the last 23 of which I have worked as an economics consultant. During that time, I have successfully led and completed more than 600 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 development projects across Greater Christchurch, including several in the Selwyn District. For example, over the last 18 months, I have assessed the economic effects of 11 private plan changes in Selwyn (PPCs 67, 68, 69, 72, 73, 74, 75, 77, 79, 81 & 82).

6. I regularly appear as an expert witness before Councils, Boards of Inquiry, Independent Hearing Panels, the Land Valuation Tribunal, the Environmental Protection Agency, the Environment Court, the Family Court, and the High Court of New Zealand.

7. I was engaged by Hughes Developments Limited (**HDL**) to assess economic and development capacity matters relating to a private plan change to the Operative Selwyn District Plan (**Operative Plan**), being a proposal to enable residential development on the subject site, being 163 Halkett Road and 1066 West Coast Road, West Melton (the **Site**) (**PC74**).

Scope of evidence

8. My evidence addresses the likely economic effects of its rezoning proposal, particularly in the context of relevant obligations under the:

   a) National Policy Statement on Urban Development 2020 (**NPS-UD**); and

   b) National Policy Statement on Highly Productive Land 2022 (**NPS-HPL**).

9. The remainder of this evidence is structured as follows:

   a) About the proposal.

   b) Market context – existing and projected growth.

   c) The need for the proposal under the NPS-UD.

   d) Economic costs and benefits of the proposal.

   e) Assessment against the NPS-HPL.

10. In preparing this evidence, I have reviewed:

   a) The Housing and Business Capacity Assessment (**HBA**) prepared for Greater Christchurch (dated 1 July 2021);

   b) The relevant submissions and further submissions on PC74;

   c) The section 42A report and accompanying peer review for West Melton rezoning proposals;

   d) Relevant sections of district and regional planning documents and strategies;

   e) Recent evidence by myself and others on capacity and property market matters across the district;

   f) The local literature on assessing the overall economic effects of competing land use options; and

   g) Various datasets on population and housing.

Code of conduct

11. I have read the Environment Court's Code of Conduct for Expert Witnesses, contained in Part 9 of the Environment Court Te Kōti Taiao o Aotearoa Practice Note 2023, and agree to comply with it. My qualifications as an expert are set out above. Other than where I state that I am relying on the advice of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Executive summary

12. This evidence assesses the economic merits and effects of the proposed rezoning of HDL's Site on the eastern fringe of West Melton under PC74.

13. Having identified the Site and briefly summarised the proposed rezoning, I then explain that Selwyn is the fastest growing area in New Zealand and is set to remain that way for the next 30-odd years according to official projections.

14. In fact, recent growth has been so strong that Statistics New Zealand recently revised its projections for the district upwards. As a result, the district must now plan for even higher growth than previously expected.

15. At the same time, the district does not appear to be providing enough capacity to meet demand (as required by the NPS-UD) because it has underestimated demand and significantly overstated likely supply to meet that demand. This applies both at the district-wide and township (West Melton) level.

16. While the new MDRS provisions may have a small impact on supply over the longer term, they are unlikely to have much effect in the interim due to the district's young dwelling stock, the significantly higher costs of multi-storeyed development, and a current lack of demand for such dwelling typologies in the district.

17. PC74 acknowledges and directly responds to this looming lack of capacity by providing approximately 124 larger lots in a master-planned development.

18. This will have a range of economic benefits including:

    a) Providing a substantial, direct boost in market supply to help meet current and projected future shortfalls;

    b) Bolstering land market competition, which helps deliver new sections to the market quicker and at better average prices;

    c) Providing a variety of housing options/typologies to meet diverse needs and preferences; and

    d) Contributing to achieving critical mass to support greater local retail/service provision and employment opportunities.

19. I also assess the proposal against clause 3.6(1) of the NPS-HPL and show that it meets the criteria set from an economic perspective. Specifically, I show that:

    a) The proposal is required to meet capacity requirements under the NPS-UD; and

    b) There are no other reasonably practicable or feasible ways to provide the same capacity in the same market/locality while achieving a well-functioning urban environment; and

    c) The economic costs and benefits of the proposal far outweigh all tangible and intangible economic costs and benefits of hypothetical foregone rural production.

20. Finally, I acknowledge my agreement with the key economic conclusions reached about PC74 in the section 42A report and explain my disagreement with new supply/demand figures recently tabled on behalf of the Council.

21. For the reasons summarised above and explained herein, I strongly support the proposal on economic grounds.

About the Proposal

22. The Site is on the eastern fringe of West Melton, and is bound by Halkett Road to the north, State Highway 73 to the south, the Gainsborough development to the west, and rural land to the east. The purple shaded area in the Figure identifies the Site.

Figure 1.: Location of Subject Site

23. The Site spans about 20.7 hectares and is currently used for rural residential and low-intensity rural productive purposes. It is zoned Rural Inner Plains under the Operative District Plan.

24. The proposal seeks to rezone the Site to enable approximately 124 dwellings to be developed on lots varying from 650m^2 to 2,270m^2. Figure shows an indicative lot layout.

Figure 2.: Indicative Lot Layout

Market Context

Population Growth

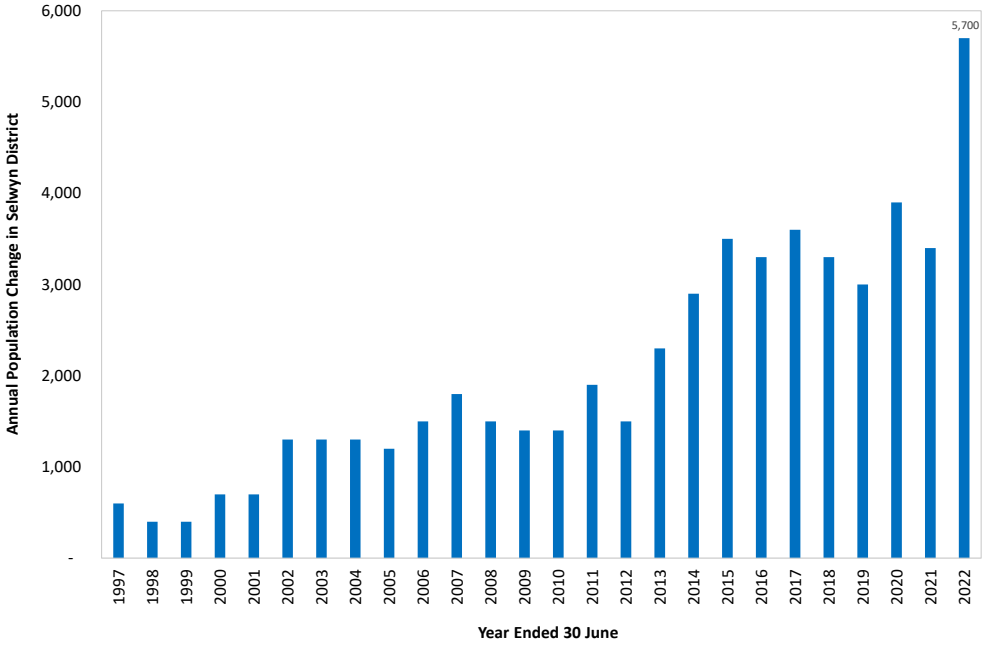
25. Selwyn is New Zealand's fastest growing territorial authority, with its population growth rate over the last 25 years being about 3.5 times the national average. This rapid growth is also expected to continue well into the future, with Selwyn picked to be the fastest growing territorial authority under all three of Statistics New

Zealand's official population projections to 2048.[1]

26. Two new sets of data have just become available, which signal even higher district growth than previously expected.

27. The first is Selwyn's official population estimate as at 30 June 2022. This far exceeded all expectations, with the district's population growing by 5,700 people in one year. Figure puts this in context of past growth. Clearly, current momentum is very strong.

Figure 3.: Annual Changes in District Population (Year Ended 30 June)



28. In addition to, or because of the new population estimates, revised population projections recently became available. Ordinarily, there is a three to five-year gap between the release of sub-national population projections, but the 2021 projections were unexpectedly updated in late 2022.

29. Interestingly, while the expected population growth rates in many of our largest cities were revised down, those for Selwyn and a handful of other high growth areas were revised upwards. Consequently, the official population projections for Selwyn now signal even higher growth than in my previous evidence. This is shown in Table 1 below, which compares the projected compound annual growth rates (CAGR) for each Tier 1 or 2

[1] Available here https://nzdotstat.stats.govt.nz/wbos/Index.aspx.

Council in the 2021 and 2022 projection releases under the medium growth scenario.

Table 1: Changes in Growth Rates for Medium Scenario (2021 vs 2022 releases)

Area	**2021** Medium Scenario CAGR	**2022** Medium Scenario CAGR	**Difference**
Selwyn district	1.75%	2.20%	0.45%
Waikato district	1.37%	1.74%	0.37%
Western Bay of Plenty	0.82%	1.11%	0.30%
Tasman district	0.57%	0.76%	0.19%
Waimakariri district	1.02%	1.15%	0.14%
Tauranga city	1.13%	1.26%	0.13%
Hastings district	0.68%	0.76%	0.08%
Whangarei district	0.79%	0.87%	0.08%
Queenstown-Lakes	1.57%	1.65%	0.07%
Napier city	0.39%	0.45%	0.06%
Hamilton city	1.14%	1.19%	0.06%
Lower Hutt city	0.40%	0.44%	0.04%
Upper Hutt city	0.58%	0.60%	0.02%
New Plymouth district	0.56%	0.56%	0.00%
Waipa district	0.84%	0.82%	-0.02%
Kapiti Coast district	0.45%	0.40%	-0.05%
Nelson city	0.34%	0.29%	-0.05%
Palmerston North city	0.49%	0.43%	-0.06%
Porirua city	0.65%	0.59%	-0.06%
Dunedin city	0.25%	0.16%	-0.10%
Rotorua district	0.42%	0.31%	-0.10%
Christchurch city	0.63%	0.52%	-0.12%
Wellington city	0.54%	0.39%	-0.15%
Auckland	1.11%	0.82%	-0.29%

30. The upshot is that the Selwyn District Council must plan for even greater population and dwelling growth than before. For example, Table 2 compares the NPS-UD demand (including competitiveness margins) for the 2021 and 2022 population projections under the high scenario, which I consider the most appropriate for planning purposes.[2]

Table 2: NPS-UD Dwelling Demand incl. margins (high scenario)[3]

NPS-UD Timeframes	**2021 projections**	**2022 projections**	**Change**
Short term	3,380	5,730	2,340
Medium term	10,200	15,340	5,140
Long term	27,930	34,460	6,530

[2] I consider the high scenario most appropriate because (i) the district has consistently exceeded previous high growth scenarios, (ii) the NPS-UD requirements are minima not targets, (iii) NPS-UD targets must be met at all times, and (iv) the economic costs of undersupplying residential land typically pale in comparison to a possible oversupply.
[3] Based on official population and household projections for the district from 2018 to 2048.

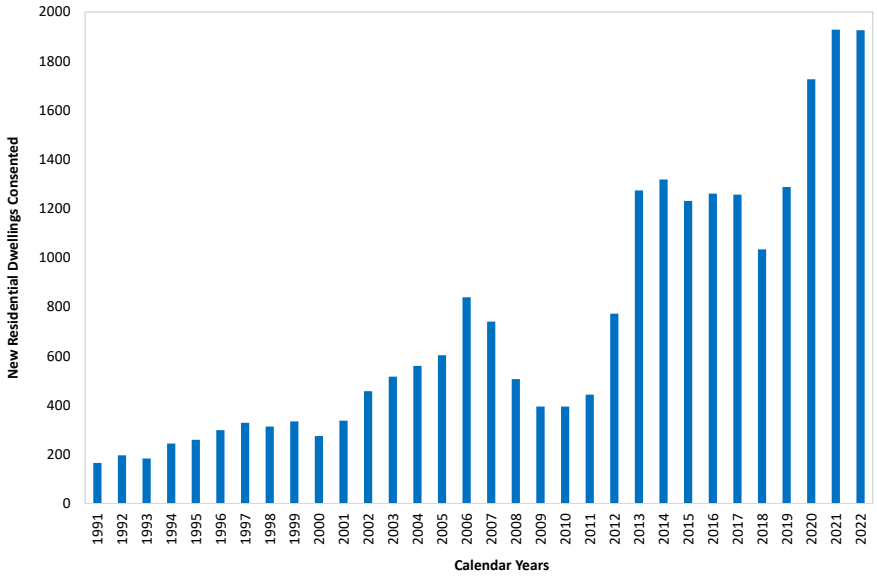
31. Table 2 shows that short-term demand has increased from nearly 3,400 extra dwellings to more than 5,700, an increase of 2,340 over only three years.

32. Medium-term demand has also increased, from just over 10,000 to more than 15,300 – an increase of 5,150 dwellings. Long term demand is also up by 6,500. Consequently, Selwyn must now plan for much higher growth than previously envisaged.

Building Consents

33. The district's rapid population growth is also (naturally) captured in building consent statistics. For example, Figure shows the number of new dwellings consented in the district over the last 32 years. In 2022, 1,926 new dwellings were consented, including a record 210 in the month of June alone.

Figure 4.: Consents Granted for New District Dwellings



34. Figure shows that dwelling consents grew steadily between 1991 and 2007, then dropped sharply (presumably due to the Global Financial Crisis). They remained low until about 2011/12, then picked up after the Canterbury earthquakes. For the next four to five years (to about 2017), new consents remained at about 1,200 per annum. However, they dipped in 2018 to about 1,000 before rebounding strongly to reach record highs in 2021, which continued in 2022.

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

Need for PC74 under NPS-UD

Need for Capacity at District Level

36. The NPS-UD came into effect in August 2020, and requires Councils in high growth areas like Selwyn to provide (at least) sufficient dwelling capacity to meet demand "at all times" over the short, medium, and long-terms.

37. In addition, the NPS-UD imposes strict reporting requirements, including the publication of ongoing housing and business capacity assessments (**HBAs**).

38. Selwyn District forms part of the Greater Christchurch Tier 1 urban environment under the NPS-UD. It's latest HBA is dated 30 July 2021, and resides within a broader assessment for the sub-regional urban environment in which it falls.

39. According to the 2021 HBA, Selwyn district has a capacity shortfall of up to 13,000 dwellings over the long term, with its medium-term being highly dependent on capacity earmarked in Rolleston's Future Urban Development Areas (**FUDAs**).

40. Table 3 summarises the details for the three scenarios reported in the HBA:

    a) Excluding Rolleston's FUDAs, as per the 2018-2048 Our Space strategy;

    b) Including Rolleston's FUDAs at 12.5 households per hectare; and

    c) Including Rolleston's FUDAs at 15 households per hectare.

Table 3: Selwyn District Feasible Capacity and Dwelling Demand in Latest HBA

Scenario 1: Excluding Future Urban Development Areas (FUDAs)			
Timeframes	Feasible Capacity	Demand incl buffer	Surplus/Shortfall
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			
Timeframes	Feasible Capacity	Demand incl buffer	Surplus/Shortfall
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			
Timeframes	Feasible Capacity	Demand incl buffer	Surplus/Shortfall
Short Term	4,578	2,714	1,864
Medium term	13,502	8,541	4,961
Long term	13,502	25,338	11,836

41. While the HBA's dwelling supply and demand figures may suggest no need for additional capacity over the short and medium-term, there are several reasons why this is unlikely to be true.

42. First, NPS-UD capacity requirements 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 more. All other things being equal, the more capacity provided, the more competition, and hence the more efficiently the land market operates (for the wider benefit of all).

43. Second, the Council's estimates of dwelling demand are too low. Specifically, the HBA assumes short-term demand for only 2,714 dwellings over three years, and a medium-term demand for only 8,541 over 10 years (both including 20% competitiveness margins). These equate to assumed annual growth rates of only 900 dwellings over the short term, and 850 over the medium term.

44. Conversely, more than 1,920 new dwellings were consented last year, which is more than double the short-term rate of demand adopted in the HBA. When the competitiveness margins are stripped out of the HBA demand figures to make them a true like-for-like comparison with recent consents, the gap is even starker.

45. Third, not only does the HBA adopt very low demand estimates for Selwyn, but its corresponding estimates of feasible capacity (to meet demand) appear overstated. There are several issues at play, as explained in **Appendix 1**.

46. Finally, three of the key inputs used to estimate feasible capacity are now way out of date, and thus so too are the HBA's feasible capacity estimates.

47. To understand this issue, it is important to know how feasible capacity is estimated over the long-term (10 to 30 years) horizon of the NPS-UD. In short, the HBA extrapolates recent trends in house prices and construction costs (from late 2020 onwards) to see how project viability is likely to evolve over time. Since sales prices are usually expected to grow quicker than development costs, the quantum of feasible capacity naturally increases. This assumption is a major contributor to the higher feasible capacity estimated in the HBA over the long-term vs the short and medium-terms.

48. However, since the analysis underpinning the 2020/2021 HBA was completed in late 2020 or early 2021, district house prices have started to fall, while construction costs have shot up due to pandemic-related supply chain issues and tight labour market conditions. At the same time, interest rates have begun to rise rapidly from historic lows, which profoundly affects the profitability of development (and hence the share of plan-enabled capacity that is likely to be feasible).

49. For context, the three charts below show how District house prices, national construction costs, and the OCR (respectively) have changed since the HBA was completed. Clearly, any long-term capacity figures based on extrapolations of the trends to late 2020 or early 2021 are no longer valid, and hence neither are the feasible capacity estimates derived from them.

Figure 5.: District Median House Price Trends Since 1993

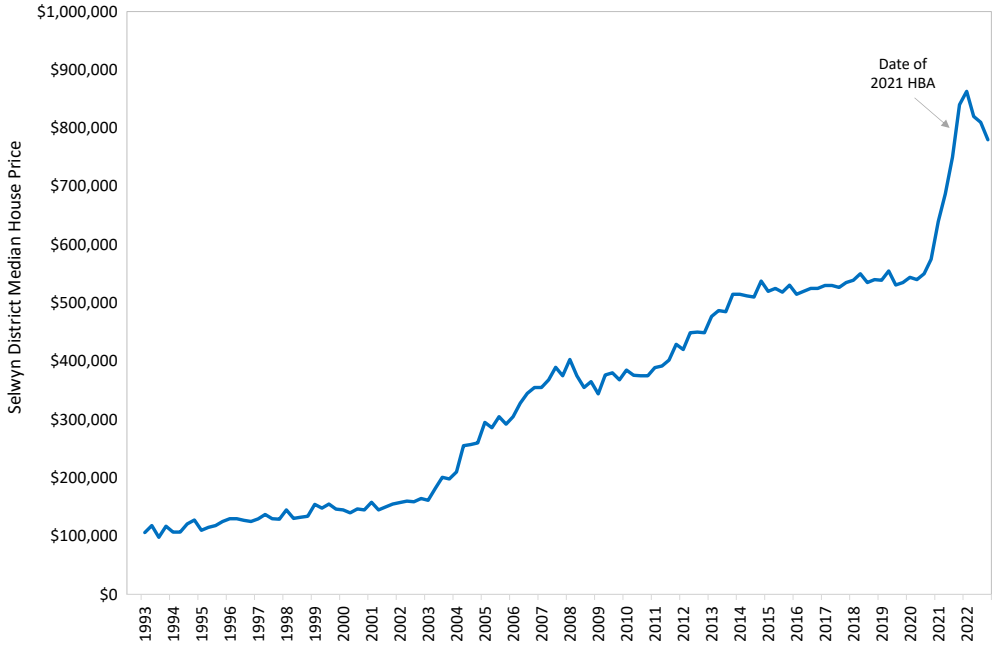


Figure 6.: Annual Changes in Residential Building Construction Costs since 1995

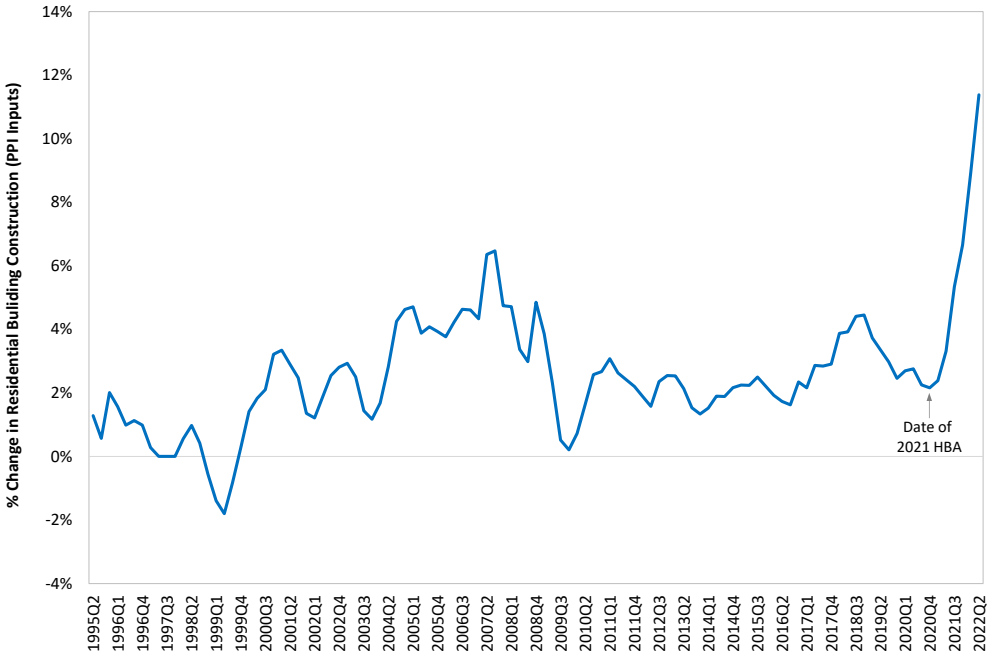
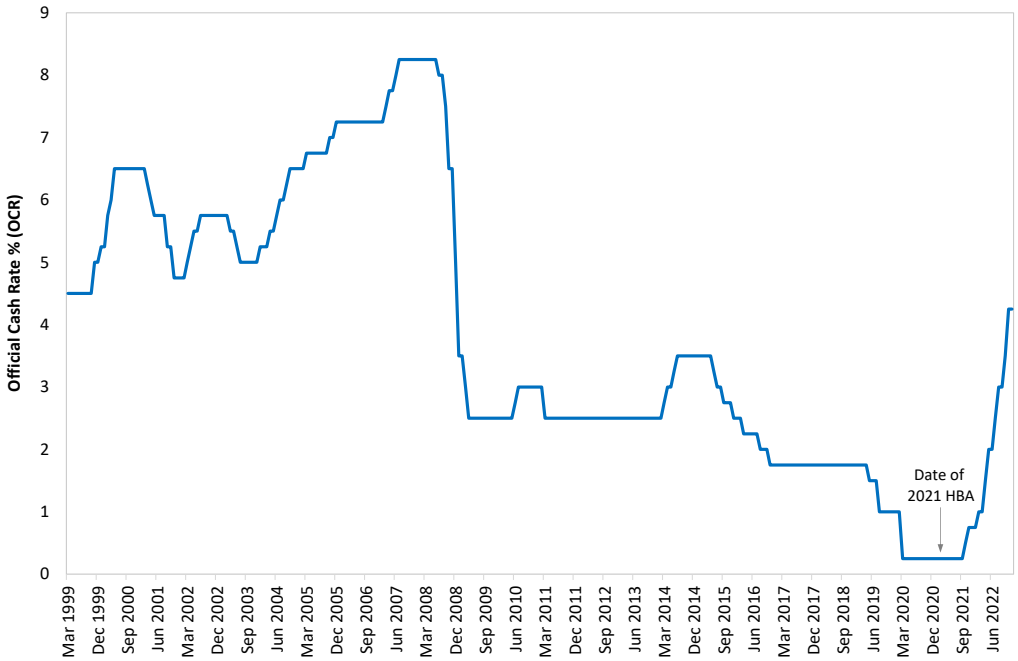


Figure 7.: Official Cash Rate



50. Not only is feasible capacity significantly overstated for the reasons set out above (and in **Appendix 1**), but there is also a critical difference between feasible capacity, as per the HBA, and likely market supply (which is ultimately tasked with meeting increased demand over time).

51. 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:

a) **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.

b) **Tax implications** – greenfield land-owners 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.

c) **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.

d) **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.

e) **Operational capacity** – some landowners face operational capacity constraints, which limit the number of new residential lots that they can supply per annum.

f) **Financing** – similarly, some landowners face capital/financing constraints that also limit their ability to supply.

52. 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.

53. In summary, the HBA itself signals major shortfalls in dwelling capacity, especially over the longer term, despite significantly underestimating demand and overestimating supply.

54. When the HBA's figures are updated to provide more realistic estimates of supply and demand – which is impossible absent access to the Council's feasibility model – the true extent of the district's dwelling capacity shortfalls will be far more profound than reported. In short, a lot more supply is required as soon as possible.

Impacts of the Recent MDRS Provisions

55. The NPS-UD-focussed analysis of dwelling supply and demand above excludes the potential effects of new medium density residential standards that now have legal effect (under the RMA Amendment Act 2021) and apply to certain residential zones in Rolleston, Lincoln, and Prebbleton.

56. Thus, I now consider how the conclusions reached might change in light of the MDRS provisions (while acknowledging that they do

not even apply in West Melton and hence play no role in helping to meet future demand there).

57. To begin, I clarify that the new rules enable up to three dwellings of three storeys to be built per lot subject to meeting various development standards, including building heights, setbacks, coverage ratios, and recession planes.

58. At first glance, the ability to construct three dwellings per lot sounds like a lot of additional capacity being enabled. And, in theory, it is. However, in my view, the practical impacts for the Selwyn District are likely to be muted, particularly over the short to medium term, for the following reasons.

59. First, the new MDRS standards won't have much impact on existing urban areas within the three townships because they are (mostly) already developed. Thus, redevelopment will be unviable over the short to medium term because those sites contain dwellings that are not only fit-for-purpose and (mostly) already occupied, but which also have plenty of remaining useful life.

60. The latter is demonstrated in Table 4 which shows the proportion of dwellings in each township built over the past 20 years (and which therefore have plenty of remaining useful life that directly affects the viability of potential redevelopment).

Table 4: Share of Dwellings Built Since the Year 2000

Dwellings by Age	**Total Dwellings**	**Built Since 2000**	**Share %**
Rolleston	9,411	6,301	67%
Lincoln	4,020	2,178	54%
Prebbleton	1,718	1,268	74%
Total	**15,149**	**9,747**	**64%**

61. Table 4 shows that about two-thirds of existing dwellings in the three townships (where the new rules apply) were built since 2000, and hence almost certainly won't be redeveloped over the short to medium term. In fact, with an average building life of (say) 50 years, most of these will not be redeveloped even over the longer (30 year) timeframe of the NPS-UD.

62. The situation for very old homes or empty sections – including those in new greenfield areas – is different because their redevelopment

is not hampered by the presence of a building with significant value.

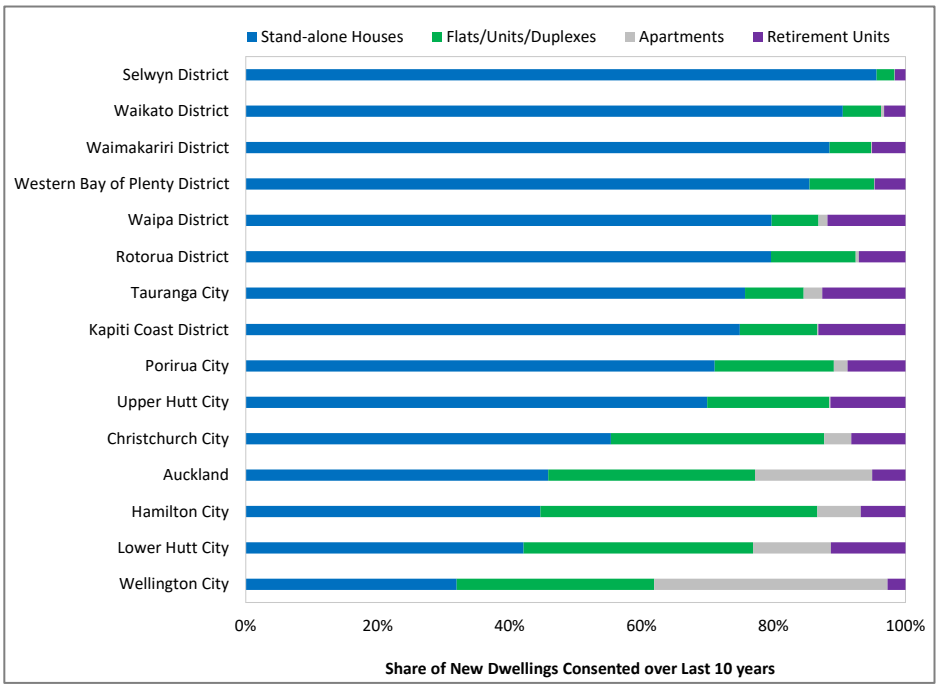
63. However, even for such properties, I expect the new rules to have fairly limited impacts in terms of the District's ability to keep pace with growth in dwelling demand over time. This is because the density uplifts enabled by the new rules require multi-storied buildings to be developed. But, these are much more expensive to build than single-storeyed dwellings, so are usually built only where land values are sufficiently high that the additional building costs are offset by reduced (per-dwelling) land costs.

64. In more provincial areas like Selwyn, where land values are still relatively affordable, multi-storeyed dwellings are unlikely to make financial sense *en masse*. Consequently, I do not consider the new rules to have much impact on the types or densities of dwellings that are likely to be constructed in the District, particularly over the short- to medium-term.

65. For context, I extracted building consent data over the last 10 years for the Tier 1 NPS-UD Councils (plus Rotorua District) where the new rules apply. Then, I calculated the proportion of new dwellings in each area that were stand-alone houses vs higher density, attached dwellings (such as apartments, duplexes etc).

66. The graph below plots the results, where 96% of new dwellings consented in Selwyn since June 2013 were stand-alone. By contrast, only 36% of new dwellings in Wellington City were stand alone, with values in the low 40%s for a handful of other areas.

Figure 8.: Types of New Dwellings Consented since 2013 for MDRS Councils



67. In my view, the consent data above reveal a clear and overwhelming preference for standalone houses in the District, which are unlikely to change much over the short to medium term. Consequently, I do not consider the new MDRS rules to have any practical impact on the District's capacity to keep pace with growth in dwelling demand over time.

Need for Proposal at Sub-District Level

68. Having determined a pressing need for additional capacity at the district level, I now drill down to consider the need for additional capacity at the sub-district level.

69. In my experience, West Melton is often considered to form a housing submarket with Prebbleton, since both are similar distances from Rolleston and have traditionally catered for larger homes on larger sections (although this is clearly evolving, particularly with recent developments in Prebbleton ODP Areas 3 & 4).

70. For example, an October 2021 memo by Ben Baird[4] for the Council grouped West Melton & Prebbleton together to form a submarket

[4] Ben Baird, Growth Planning in Selwyn District, Technical Memo, 1 October 2021.

and then assessed their likely dwelling supply/demand balance. Table 5 below presents the details. It reveals a significant shortfall over the medium and longer terms. In fact, medium-term demand is ten times capacity, while long-term demand is about 30 times higher.

Table 5: Supply/Demand Balance for Prebbleton and West Melton

Additional Dwellings	**Medium Term**	**Long Term**
Feasible Capacity	181	181
Demand (incl comp margins)	1,859	5,530
Surplus/Shortfall	**-1,678**	**-5,349**

71. The supply/demand balances above do not reflect PCs 67 and 68 recently becoming operative, so I capture that in the table below.

Table 6: Revised Supply/Demand Balance for Prebbleton and West Melton

Additional Dwellings	**Medium Term**	**Long Term**
Feasible Capacity	181	181
Demand (incl comp margins)	1,859	5,530
Surplus/Shortfall	**-1,678**	**-5,349**
PC67	131	131
PC68	820	820
***Revised* Surplus/Shortfall**	**-727**	**-4,398**

72. Table 6 shows that, even when the full capacity planned for the two newly operative plan changes are included, there remains significant shortfalls over the medium and longer terms.

73. I also note that while West Melton is often grouped with Prebbleton as a separate submarket (as noted above), it arguably also forms its own distinct housing market.

74. While I acknowledge that they are both semi-rural settlements a similar distance from, Rolleston, I also consider West Melton to be its own market/locality. This reflects its greater distance from Christchurch City than Prebbleton, its more rural outlook, plus its larger average sections and dwelling sizes. Prebbleton is also subject to new MDRS provisions, while West Melton is not.

75. For these reasons, I consider West Melton to comprise its own housing market, despite often being grouped in with Prebbleton.

Also, with only an additional 131 lots provided for West Melton via PC67, a lot more supply will be needed to keep pace with demand there over time.

Need to Provide for a Range of Lot Sizes

76. I also note that the district's housing market is fine-grained, with properties able to be defined across several dimensions, including lot size, location, dwelling size/typology, and so on. Accordingly, it is important that sufficient capacity is provided across a wide range of housing options, not just the smaller residential lots being proposed via most other plan changes.

77. Although the proposal includes a handful of sections smaller than 1,000m^2, it effectively seeks to boost the supply of large lot residential (**LLR**) land in West Melton. While larger lot residential has been popular in West Melton historically, the remaining supply of large lot vacant sections (especially in the 1,000m^2 to 2,300m^2 range targeted by PC74) is scarce.[5]

78. To demonstrate this, I used Core Logic's Property Guru tool to identify the current stock of vacant LLR sections in West Melton sized between 1,000m^2 and 2,300m^2. This returned only 24 sites, most of which are south of the State Highway. Figure plots them as yellow dots for a visual representation.

[5] I understand that this has been exacerbated by the introduction of new MDRS provisions, which apply to the residential zoned areas of Prebbleton, Rolleston, and Lincoln.

Figure9.: Current Vacant Sites Between 1,000 and 2,300m2

79. By providing approximately 124 new LLR sections, the proposal will help fill this gap in the market and ensure that NPS-UD obligations are met. Importantly, it will create new sections in the 1,000m^2 to 2,300m^2 range, which are now relatively rare in West Melton.

Summary and Conclusion

80. In summary, I consider that there is a clear and overwhelming need for PC74 to help meet NPS-UD capacity requirements, both at the district and sub-district level, and particularly for meeting demand for additional LLR in West Melton.

Economic Costs and Benefits of the Proposal

81. I now consider the PC74's likely economic costs and benefits.

Boost in Market Supply

82. Perhaps somewhat obviously, the proposed rezoning will provide a substantial, direct boost in the district's dwelling capacity, thereby helping to narrow the gap between likely future supply and demand. 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).

83. Further, although the district's housing has been reasonably affordable compared to other parts of New Zealand in the past, that is changing. The latest data published under the NPS-UD show that District dwelling prices continued to climb to March 2022 before correcting in the past six months.[6] Overall, the median price increased by 40% in the two years to September 2022.

84. The latest affordability report by Core Logic published in June 2022[7] shows the median house price in the district now sits at 8.5 times the median household income. By comparison, the benchmark for affordability is a ratio of only three.

85. In addition, the latest Core Logic report shows that it now takes about 11.4 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 beyond the reach of many households.

86. The rezoning directly responds to this need for additional dwelling capacity by enabling the development of approximately 124 new homes over time.

87. In my view, and from an economic perspective, this represents a significant boost in supply. To assess whether this satisfies the definition of "significant" in clause 3.8 of the NPS-UD (which relates to unanticipated or out-of-sequence plan changes), I reviewed the latest HBA. At page 10 it discusses consultation with the

[6] Accessible here https://huddashboards.shinyapps.io/urban-development/
[7] Accessible here https://www.corelogic.co.nz/news-research/reports/housing-affordability-report

development community (while writing the HBA) and describes landowners that could develop 20 or more dwellings as significant.

88. As such (and particularly given the shortfalls I have described), I consider the proposed development of approximately 124 dwellings on the Site to represent a significant increase in capacity for the Selwyn district, from both an economic and market perspective (and by extension how it might be considered for the purposes of clause 3.8 of the NPS-UD).

89. To put the supply boost in context, the 124 new lots provided would increase likely short-term district supply by 4%, and medium term by 2%.[8]

90. Further, when focus is restricted to large lot residential options in West Melton, which I consider the most relevant submarket, the proposal will increase supply roughly five-fold.[9] I consider that highly significant for the purposes of clause 3.8 of the NPS-UD.

Land Market Competition

91. In addition to directly boosting district dwelling capacity, the proposed rezoning will also help to foster competition in the local land market. This is important because, as recognised through objective 2 of the NPS-UD, 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.

92. 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

[8] Based on the likely short term supply estimate of 3,036 dwellings in **Table 3**, and the medium-term figure of 5,050.
[9] The proposal will increase the number of vacant large lot sections (sized from 1,000 to 2,300m^2 from about 24 now to nearly 150 including currently vacant sites). This represents a five-fold increase.

of the rapid growth in land and dwelling prices over the last two years, as shown in Figure 5 above.

93. Moreover, not only does 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.

94. 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

95. The NPS-UD 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.

96. This is shown in the excerpt below, which displays the first part of Policy 1 of the NPS-UD:

Table 7: Policy 1 of the NPS-UD

2.2 Policies

Policy 1: Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum:

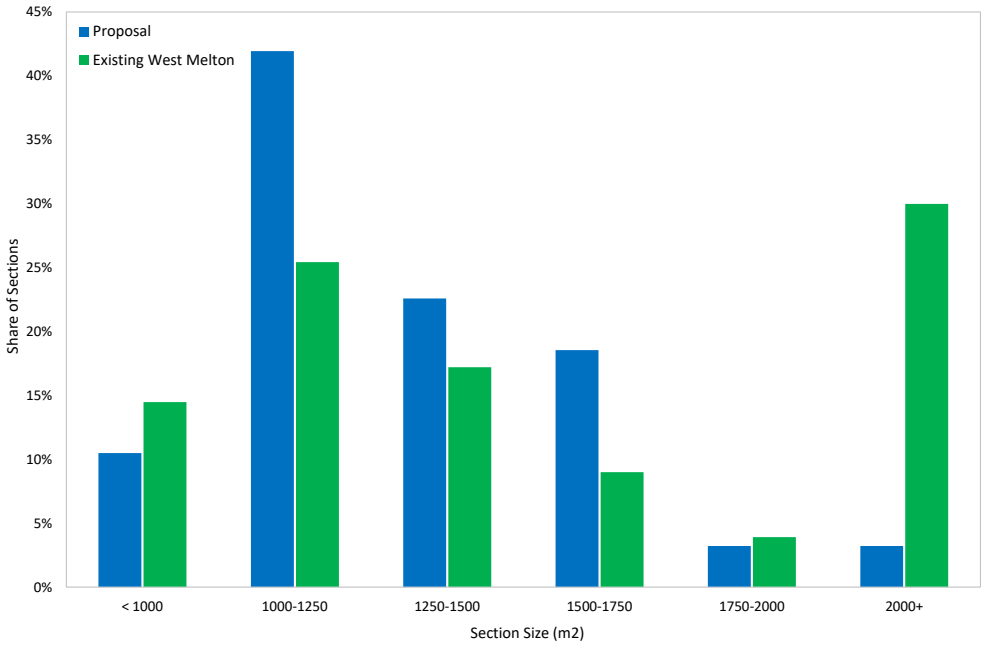
(a) have or enable a variety of homes that:

(i) meet the needs, in terms of type, price, and location, of different households; and

97. As discussed above, West Melton effectively forms its own district housing sub-market (despite often being grouped with Prebbleton). This is due in part to its existing housing stock, which is characterised by larger dwellings on more spacious sections.

98. The proposal provides for lot sizes that are broadly consistent with West Melton's existing housing stock, as illustrated in Figure 9 below.

Figure 10.: Section Sizes in Proposal versus Existing West Melton Stock



99. In our experience, the proposed lot sizes are larger than what is typically provided for in the district's other urban areas, notably the main growth area of Rolleston.

100. Accordingly, not only does HDL's proposal make a significant contribution to both West Melton, and the district overall, 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 Non-Residential Growth & Activity

101. Currently, Selwyn District residents rely heavily on centres in Christchurch City for employment, and to meet daily household needs.

102. By enabling the resident population to grow, including via additional development on the Site, the district will eventually be able to support greater local retail/service provision and be less reliant on the city to meet its household and employment needs.

103. This, in turn, will not only support greater district economic activity and hence employment, but will also reduce vehicle travel and the harmful emissions associated with it.

104. That said, we acknowledge that future households in West Melton will continue to meet a significant share of their household needs from centres elsewhere in Selwyn and in Christchurch City too.

One-Off Economic Stimulus

105. Constructing the 124 new homes enabled by the proposal will generate significant one-off economic impacts. We 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.

106. These impacts include:

a) **Direct effects** – which capture onsite activities directly enabled by the proposal; plus

b) **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 and services from their own suppliers, and so on; and

c) **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.

107. These economic effects are usually measured in terms of:

a) **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.

b) **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**).

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

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

Table 8: One-Off Regional Economic Impacts of Construction

Economic Impact Measures	Direct	Indirect	Induced	Total
Regional GDP ($m)	$12	$8	$4	$24
Employment (FTE-years)	140	100	40	280
Salaries / Wages ($m)	$8	$4	$2	$14

109. In summary, I estimate that future construction activity enabled by the proposal could boost regional GDP by $24 million, including flow on effects, generate employment for 280 FTE-years, and generate $14 million in household incomes.

110. Assuming (say) a 3-year construction period, these translate to annual impacts of $8 million in regional GDP, including flow on effects, full time employment for 90-odd people, and $5 million in household incomes.

Assessment Against Clause 3.6 of the NPS-HPL

Introduction

111. The NPS-HPL came into force on 17 October 2022 and aims to protect our most productive land for land-based production, both now and in the future. It requires Regional Councils to map highly productive land (**HPL**), and closely manage the subdivision, use and development of it by avoiding inappropriate use and development.

112. Clause 3.6(1) of the NPS-HPL allows Tier 1 and 2 territorial authorities to allow the rezoning of HPL if three criteria are met. They are that:

a) the urban rezoning is required to provide sufficient development capacity to meet demand for housing or business land to give effect to the NPS-UD; and

b) there are no other reasonably practicable and feasible options for providing at least sufficient development capacity within the same locality and market while achieving a well-functioning urban environment; and

c) the environmental, social, cultural, and economic benefits of rezoning outweigh the long-term environmental, social, cultural, and economic costs associated with the loss of HPL for land-based primary production, taking into account both tangible and intangible values.

Need for the Proposal Under NPS-UD – Clause 3.6(1)(a)

113. My analysis above confirms that PC74 is needed to meet NPS-UD capacity requirements, which is only reinforced by the new population data and projections just released. In my view, this addresses section 3.6(1)(a) of the NPS-HPL.

No Other Practicable or Feasible Way to Provide Capacity – Clause 3.6(1)(b)

114. Having determined the need for the proposal, the next test is whether there are other reasonably practicable/feasible ways to provide it in the same market/locality while achieving a well-functioning urban environment. This could potentially occur via greater intensification of existing areas, rezoning of land that is not HPL, or rezoning land with less productive capacity.

115. As noted above, I consider West Melton to be its own housing market/locality despite often being grouped with Prebbleton.

116. So, when assessing other reasonably practicable and feasible ways of providing the same capacity as the Submitter's proposal, I limit this to West Melton and its surrounds. I start with the intensification option.

117. For context, Figure 11 shows the size and location of the Submitter's land relative to the current extent of West Melton, including the

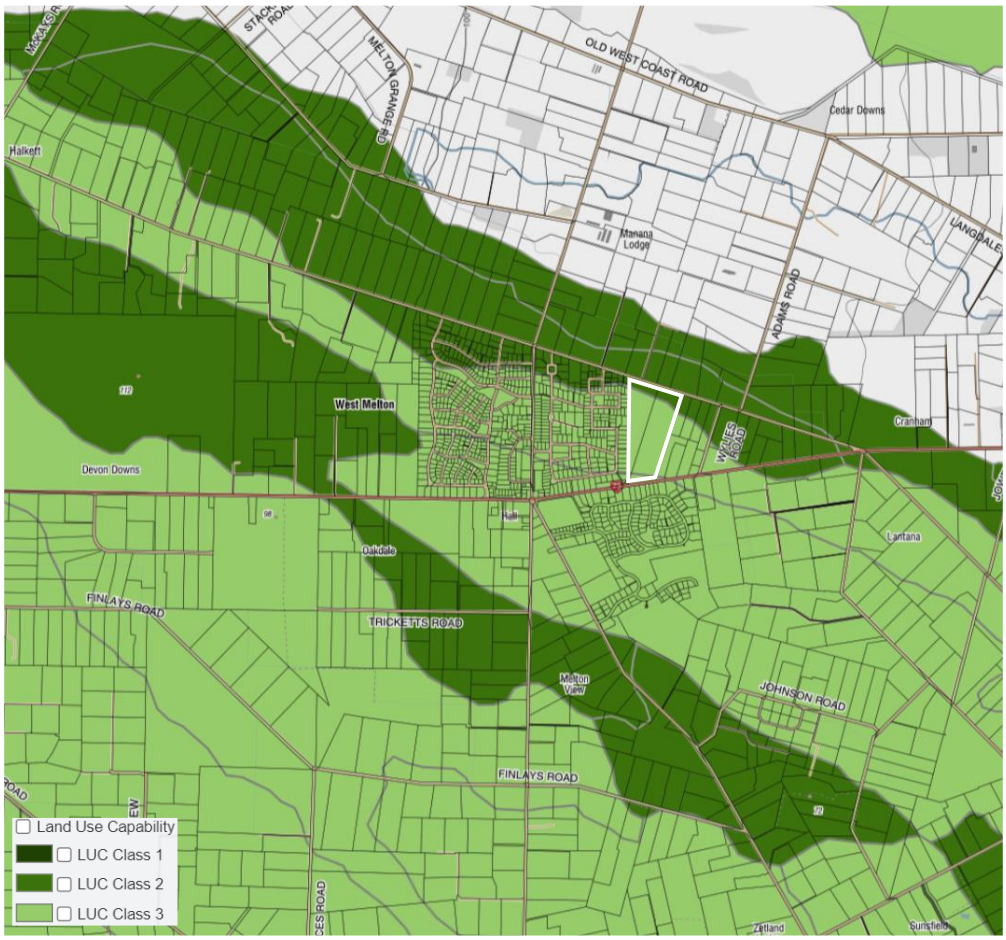
operative PC67 and proposed PC77. It also shows the parcels that comprise the township.

Figure 11.: Spatial Extent/Parcel Composition of West Melton

118. As the map above confirms, a master-planned development such as that proposed by the Submitter cannot be achieved via greater intensification of the existing urban area. With the proposal spanning 20.7 hectares, there are no parcels large enough to accommodate it via intensification.

119. To identify other sites that have no HPL and/or a relatively lower productive capacity than the Submitter's land, I used Landcare's GIS viewer to examine the distribution of HPL in and around West Melton, noting of course that other experts have analysed the distribution and extent of HPL on the Site. The map below presents my findings, with the Site shown by a white outline.

Figure 12.: Distribution of HPL in and Around West Melton



120. Figure shows that **all** land in and around West Melton contains HPL, so there is nowhere to replicate the proposal without foregoing HPL.

121. The final consideration is whether the proposal could be placed on land with a lower productive capacity. This is defined in the NPS-HPL to mean:

"the ability of the land to support land-based primary production over the long term, based on an assessment of:

- *physical characteristics (such as soil type, properties, and versatility); and*
- *legal constraints (such as consent notices, local authority covenants, and easements); and*
- *the size and shape of existing and proposed land parcels"*

122. With hundreds of alternative potential parcels to assess under this criterion, it is an extremely onerous task and therefore well beyond the scope of this evidence.

123. However, that said, it seems likely that the Site's land is too valuable to be viable for rural production, especially over the longer term.

124. To illustrate this, I used Core Logic's Property Guru tool to extract data on all district land currently used for arable or horticultural purposes. My search returned about 540 properties, as shown by the yellow dots in the map below. The Site is identified by a white arrow for context.

Figure 13: Location of District Land Used for Arable or Horticultural Purposes

125. Clearly, arable and horticultural uses are uncommon in and around the district's urban townships, where land values are higher, and instead they are concentrated in more remote areas. Consequently, arable and horticultural production typically occurs on low value land.

126. In fact, the median land value across the 540 arable/horticultural

properties mapped was only $3.50 per square metre. Conversely, *Property Guru* reports that the Site's land value is $54 per square metre, which is more than 15 times higher.

127. This very high cost (compared to land used for productive purposes) undermines the viability of rural production because extremely high profits must be sustained to provide an acceptable rate of return on the underlying land. However, that is not the case for the cheaper land where rural production currently occurs, which puts the Site at a considerable, and likely insurmountable competitive disadvantage. This, in my view, seriously degrades the Site's rural productive potential from an economic perspective.[10]

128. For the reasons above, and noting the relevant evidence of Messers Ford, Mthamo and Hainsworth, I do not consider there to be any other reasonably practicable or feasible options to provide the proposed capacity in and around West Melton.

Overall Economic Costs and Benefits – Clause 3.6(1)(c)

Introduction

129. The final task is to show that the overall benefits of the proposal outweigh costs, including tangible and intangible effects. This is not limited to economic matters, but also social, cultural, and environmental.

130. Below I assess the likely economic costs and benefits of the proposal relative to potential rural production to inform the broader analysis under this clause. First, however, I summarise a literature review performed to find the best structure for the analysis.

Literature Review

131. I briefly reviewed the New Zealand literature on the economic analysis of competing land uses and was quickly led to a 2013 paper titled "Total Economic Value of New Zealand's land-based

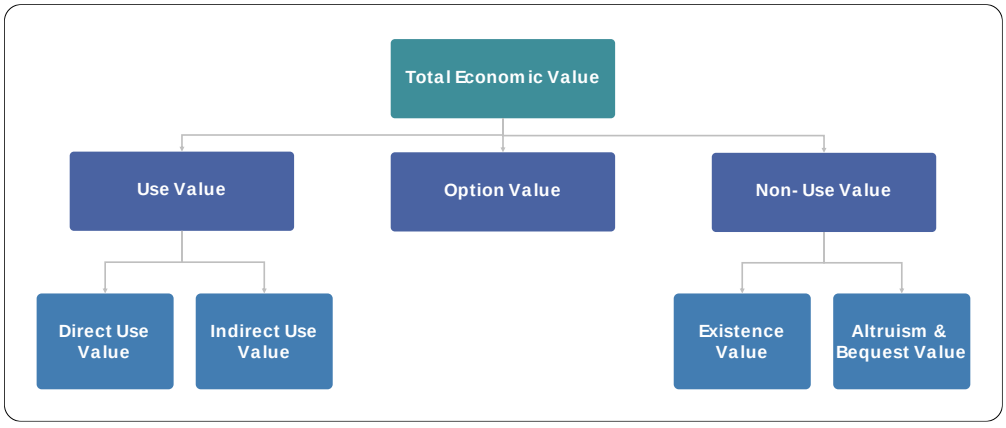
[10] This conclusion is reinforced by Mr Mthamo's evidence at paragraph 15, which shows that the Site's productive potential will likely also be limited by irrigation constraints.

ecosystems and their services" (Patterson 2013)[11]. It is widely cited by other studies and appears to be the most authoritative, current work of its kind. Accordingly, I rely on it here.

132. The paper adopts the total economic value (**TEV**) framework, which has been widely used in environmental economics since the 1980s to help capture the full spectrum of economic effects, not just those that are readily quantifiable.

133. While the exact structure of the TEV framework often differs from one study to the next, the figure below presents its key components.

Figure 13.: Total Economic Value (TEV) Framework



134. In the TEV framework, economic value is divided into values arising from both the use and non-use of resources, including possible future use (known as option value).

135. Use values are subdivided into those that flow directly from use, such as food production, and those that flow indirectly, such as changes in air or water quality due to agricultural practices (for example).

136. Non-use values include the benefit that people receive from knowing that something exists, even if they never plan to visit it (existence), plus the benefit of preserving things for the benefit of others both now (altruism), and in future (bequest).

137. Patterson 2013 apply this framework to twelve land-based

[11] https://www.landcareresearch.co.nz/assets/Publications/Ecosystem-services-in-New-Zealand/3_2_Patterson.pdf

ecosystems to quantify the economic value that each provides. They split use values into the following four parts to reflect the delivery of different ecosystem services:

a) **Provisioning services** – such as the growing of arable/horticultural crops, plus the rearing of animals for meat and milk production.

b) **Regulation services** – which refers to the regulation of biophysical and ecological processes to support life and provide a suitable habitat for human existence.

c) **Cultural services** – which includes spiritual fulfilment, aesthetics, education, scientific knowledge, and cultural wellbeing.

d) **Support services** – which support provisioning and regulating services nutrient cycling, soil formation, and the provision of habitat. However, these are usually excluded from the formal assessment of TEV because they are already included elsewhere and hence cause double-counting.

138. The table below summarises the TEVs estimated by Patterson 2013 using this approach.

Figure 14.: TEV of Land-Based Ecosystems from Patterson 2013

Ecosystem type	Use value				Passive value	Gross value[1]	Net value[2]
	Supporting value	Regulating value	Provisioning & cultural value	Total			
Standard ecosystems							
Horticulture & cropping	23	3	2,265	2,291	Note 3	2,291	2,268
Agriculture	7,751	3,345	9,075	20,171	Note 3	20,171	12,420
Intermediate agric–scrub	1,897	1,630	1,112	4,639	Note 3	4,639	2,742
Scrub	609	531	5	1,144	Note 3	1,144	535
Intermediate agric–forest	402	352	218	973	Note 3	973	571
Forest–scrub	704	614	129	1,447	Note 3	1,447	743
Forest	3,495	3,056	7,631	14,182	Note 4	14,182	10,687
Wetlands	3,599	4,103	1,020	8,722	350	9,072	5,473
Estuaries	1,026	314	109	1,449	211	1,659	634
Mangroves	0	103	0	103	41	144	144
Lakes	1,735	544	4,671	6,950	885	7,836	6,101
Rivers	1,289	404	3,470	5,164	1,434	6,597	5,309
Heritage ecosystems							
National parks	Note 5	Note 5	Note 5	Note 5	7,164	7,164	7,164
Forest parks	Note 5	Note 5	Note 5	Note 5	743	743	743
Land reserves	Note 5	Note 5	Note 5	Note 5	1,218	1,218	1,218
Total	22,530	15,000	29,705	67,235	12,045	79,280	56,749

[1] Gross value = use value + passive value

[2] Net value = use value + passive value − supporting value

[3] The passive value of these standard ecosystems could not be estimated due to the lack of data. It is probably small compared with the passive value of the heritage ecosystems.

139. I now compare the likely economic costs and benefits of PC74 and foregone rural production using this framework. I begin with the TEV of PC74.

TEV of PC74

140. Constructing the 124 new homes enabled by the proposal will generate significant one-off economic impacts, which count as direct use benefits in the TEV framework.

141. I quantified these above and found that future construction activity enabled by the proposal could boost regional GDP by $24 million, including flow on effects, generate employment for 280 FTE-years, and generate $14 million in household incomes.

142. Assuming (say) a 3-year construction period, these translate to annual impacts of $8 million in regional GDP, including flow on effects, full time employment for 90-odd people, and $5 million in household incomes.

143. In addition, as detailed above, the proposed rezoning will generate other significant and enduring economic benefits that will not be realised via rural production. These are likely to be classified as indirect use values in the TEV framework and include:

a) Providing a substantial, direct boost in market supply to help meet current and projected future shortfalls;

b) Bolstering land market competition, which helps deliver new sections to the market quicker and at better average prices;

c) Providing a variety of housing options/typologies to meet diverse needs and preferences; and

d) Contributing to achieving critical mass to support greater local retail/service provision.

TEV of Rural Production – Direct Use Value

144. Next, I estimated the economic activity that might occur absent the proposal to determine the direct use value of foregone rural production.

145. As some readers will be aware, the value of rural production varies markedly by land use. Here, I estimate it for the following four activities, which are relatively common in Selwyn.

a) Grain production;

b) Seed production;

c) Sheep & beef farming; and

d) Dairy farming.

146. National-level metrics of production per hectare for the first two activities were extracted from a recent report by BERL[12], while region-specific data for the others were sourced from Beef+LambNZ[13], and the NZ Dairybase[14], respectively. The table below shows the resulting estimates of rural production per hectare.

Table 9: Production Metrics per Hectare (for Subject Site)

Productive Use	Output $	GDP $	FTES	Wages
Grain	4,640	1,630	0.028	1,400
Seeds	9,030	3,180	0.055	2,750
Sheep & Beef	4,050	1,610	0.004	220
Dairy ($9.30/kg ms)	15,050	7,900	0.022	1,085
Average	**8,190**	**3,580**	**0.027**	**1,360**

147. The next table shows the estimated activity foregone if the Site's full 20.7 hectares were used exclusively for rural production.

Table 10: Estimated Annual Production from 20.7 hectares

Productive Use	Output $	GDP $	FTES	Wages
Grain	96,000	34,000	0.6	29,000
Seeds	187,000	66,000	1.1	57,000
Sheep & Beef	84,000	33,000	0.1	5,000
Dairy ($9.30/kg ms)	312,000	164,000	0.4	22,000
Average	**170,000**	**74,000**	**0.6**	**28,000**

148. Taking the average, the Site could theoretically sustain the following annual economic activity if used solely for rural

[12] https://www.uwg.co.nz/content/documents/2019%20September%206%20AFIC%20Arable%20Production%20Final.pdf
[13] https://beeflambnz.com/sites/default/files/data/files/nsi%20class%208%20si%20mixed%20finishing.xlsx
[14] https://www.dairynz.co.nz/business/dairybase/benchmarking/latest-dairybase-benchmarks/

production:

a) Output/revenue of $170,000;

b) GDP of $74,000;

c) Employment for 0.6 FTEs; and

d) Wages and salaries of $28,000.

149. These values are negligible, not even providing full time employment for one person. By comparison, the Submitter's proposed development would provide a substantial boost in employment during construction.

TEV of Rural Production – indirect Use & Non-Use Values

150. Patterson 2013 provide estimates of indirect and non-use (passive) values for each of the 12 ecosystems in their study (as reproduced above). Of those 12 ecosystems, only the first two are relevant here. According to Patterson 2013, the indirect and non-use values of these ecosystems (horticulture/cropping and agriculture) are negligible. This is illustrated in the two tables below which provide further information about the scope and magnitude of these other "value sources".

TABLE 2 Use value of ecosystem services derived from horticulture-cropping ecosystems ($2012 million)

Ecosystem service	Supporting value	Regulating value	Provisioning & cultural value	Provisioning & cultural value not covered by GDP	Gross value	Net value
Water provisioning			2	2	2	2
Food production			2,263		2,263	2,263
Climate regulation		3		3	3	3
Erosion control	12			12	12	
Pollination	11			11	11	
Total	23	3	2,265	28	2,291	2,268

TABLE 3 Use value of ecosystem services derived from agriculture ecosystems ($2012 million)

Ecosystem service	Supporting value	Regulating value	Provisioning & cultural value	Provisioning & cultural value not covered by GDP	Gross value	Net value
Water provisioning			85	68	85	85
Food production			8,363		8,363	8,363
Raw materials			514		514	514
Recreation			57	57	57	57
Cultural			57	57	57	57
Gas regulation		200		200	200	200
Waste treatment		2,488		2,488	2,488	2,488
Biological control		657		657	657	657
Soil formation	28			28	28	0
Erosion control	7,008			7,008	7,008	0
Pollination	715			715	715	0
Total	7,751	3,345	9,076	11,278	20,172	12,421

151. As revealed above, provisioning services (which I have just estimated) equal 99.8% of TEV for horticulture/cropping[15], and 67% for agriculture. [16]

152. Thus, according to Patterson 2013, the TEV of rural production foregone will be about the same as my estimates of direct use/provisioning value for horticulture/cropping (i.e., grain or seed production), and about 50% higher than my estimates for agricultural uses (i.e., sheep/beef and dairy).

153. To complete the assessment, Table 11 compares the direct use values of PC74 and the four rural production scenarios.

154. To provide a long-term view of rural production foregone, I model 50 years.[17] In addition, to provide a more realistic outlook for dairy, I model an estimated long-term farmgate price of $7.50/kg ms, rather than extrapolating the current, recent record price of more than $9.

155. Further, I assume that 90% of the Site is available for ongoing rural production, and that future production values are converted to present value (current dollar) terms at a discount rate of 8%.

156. Finally, I ignore the induced impacts calculated for PC74 and

[15] Calculated as 2,263 divided by 2,268.
[16] Calculated as 8,363 divided by 12,421.
[17] While rural production can potentially be sustained for longer, production beyond 50 years is worth very little in present value terms (~a few cents in the dollar) so is largely immaterial.

focus only on the more tangible direct and indirect effects.

Table 11: Comparison of Direct Use Values over 50 years (NPV @ 8%)

Productive Use	**GDP $**	**FTE-Years**	**Wages $**
Grain	370,000	26	320,000
Seeds	730,000	51	630,000
Sheep & Beef	360,000	4	60,000
Dairy ($7.50/kg ms)	1,130,000	20	240,000
PC74 (direct + indirect)	20,000,000	240	12,000,000

157. The table above confirms that PC74 will generate much higher GDP, employment, and wages than any of the rural production scenarios, even when the latter are considered over a long period, such as 50 years.

158. With these direct use values representing 99.8% of TEV for seed and grain production, and 67% for sheep/beef and dairy, the inclusion of the other facets of TEV has no material impact on the comparison.

TEV Summary and Conclusion

159. My analysis above shows that PC74 will generate far higher impacts on GDP and employment than rural production, even when the latter is considered over a very long period of 50 years. Thus, overall, I consider the PC74 to satisfy the requirements of clause 3.6(1)(c) of the NPS-HPL from an economic perspective.

Response to section 42A report

160. I have read the section 42A report for PC74 and agree with its key conclusions on economic matters. Specifically, I agree with the section 42A report that PC74:

a) is needed to provide capacity for new dwellings in West Melton (paragraph 7.18);

b) satisfies clause 3.6(1)(a)-(c) of the NPS HPL and is therefore justifiable on such grounds (paragraph 7.167); and

c) will increase land market competition and generate other economic benefits (paragraph 8.9).

161. However, paragraph 7.16 of the report refers to a disagreement between the Council's economist, Derek Foy, and I during the recent District Plan Review (DPR) process for West Melton.

162. In short, while drafting our DPR joint witness statement (JWS), Mr Foy tabled new demand and capacity estimates for West Melton, which came from a revised model known as the SCGM22.

163. These new – and hitherto uncited – figures signalled a quantum leap in feasible capacity for West Melton coupled with greatly reduced demand, which led Mr Foy to now conclude that PC74 was needed only over the long-term (i.e. 10 years and beyond).

164. I challenge the veracity and supposed implications of these new data. In my view, they are fundamentally flawed for at least three reasons.

165. First, the SCGM22 grossly overstates future supply from the three West Melton plan changes, including this one. As summarised in the table below, it assumes that these plan changes will provide nearly 1,000 dwellings of capacity, whereas the actual/consented value is just over 520. Consequently, the SCGM22 overstates future plan change capacity by 468 dwellings.

Table 12: SCGM22 Capacity Estimates vs Actual for PCs 67/74/77

Plan Change	SCGM22	Actual	Variance
PC67	359	179	-180
PC74	222	124	-98
PC77	410	220	-190
Total	**991**	**523**	**-468**

166. Second, the SCGM22 assumes that 184 of 187 (98%) of West Melton parcels (which are zoned general residential under the PDP and are at least 1,400m^2) can and *will* be subdivided in the next 10 years to provide 240 additional dwellings of infill capacity.

167. This is non-sensical because 94% of those parcels contain dwellings, which are all relatively new, and which have average building values of about $550,000.

168. Ordinarily, such young and expensive buildings would be highly unviable for redevelopment, so any capacity arising must occur

by preserving, and subdividing around, them.

169. However, this also seems unlikely because many West Melton dwellings are located centrally on their site, have long driveways with extensive landscaping, and sometimes also have swimming pools. Accordingly, it would be impossible to subdivide them as the model predicts while preserving existing/expensive dwellings and amenities.

170. Consider, for example, 27 Rossington Drive, West Melton, which the model expects to provide two additional dwellings over the next 10 years (for a total of three dwellings). It is illustrated by the yellow outline in the map below.

Figure 15.: Map Outline for 27 Rossington Drive, West Melton

171. To summarise: 27 Rossington Drive is a 2,103 sqm site with a 317 sqm GFA home that is only 10 years old. Its land value is $490k, while the dwelling and other improvements are worth $1.23 million.

172. According to the SCGM22, this site will be subdivided into three equal lots of 701 sqm each.

173. Herein lies the problem. As should hopefully be clear, this site cannot be split into three without first removing the existing dwelling. But removal of the building is not feasible because of its extremely high value. Consequently, the model's estimates of infill

capacity are flawed and should be discounted accordingly.

174. Oddly, the SCGM22 methodology report itself concedes on page 22 that *"intensification or redevelopment within the existing urban areas is for the most part not financially feasible, which is driven by the high value of the existing dwelling stock (being relatively new), the high cost of constructing multi-level dwellings, and the low sales price that will be achieved."*

175. This is correct, but it directly contradicts the case study above, so I delved deeper into the output data provided where I discovered what I consider to be the nub of the issue.

176. In short, as noted above, the model assumes that 98% of West Melton parcels larger than 1,400 sqm will provide at least one additional dwelling over the next 10 years. This is incorrect as explained.

177. Third, the SCMG22 estimates demand for only 460 additional dwellings in West Melton over the next 10 years, including NPSUD competitiveness margins, which equals 3.7% of the corresponding district figure.

178. Apparently, this reflects West Melton's share of past growth. However, over the last 15 years, when West Melton had capacity to accommodate growth, it accounted for 5.5% of the district total. When that fact-based district share is adopted instead, West Melton's medium term demand estimate rises from 460 (as per the SCGM22) to 680 dwellings.

179. In short, I have no confidence in the SCGM22, and I urge decision-makers to treat it with extreme caution.

Conclusion

180. This evidence has shown that the proposed rezoning under PC74 will help meet the district's obligations under the NPS-UD and will generate a range of significant and enduring economic benefits. In addition, this evidence has shown that the proposal can also be justified under the requirements of the NPS-HPL. Accordingly, I strongly support it on economic grounds.

Fraser Colegrave

13 March 2023

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 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[18]. 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[19]. 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.

[18] See page 42 of the HBA (30 July 2021).
[19] https://www.selwyn.govt.nz/data/assets/pdf_file/0005/475466/UG-Chapter-Appendix-3-HG-Greenfield-Density-Analysis.pdf

Table 12: 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. 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 the Selwyn district, not the 75% assumed in the HBA. I return to this point shortly.

6. 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.

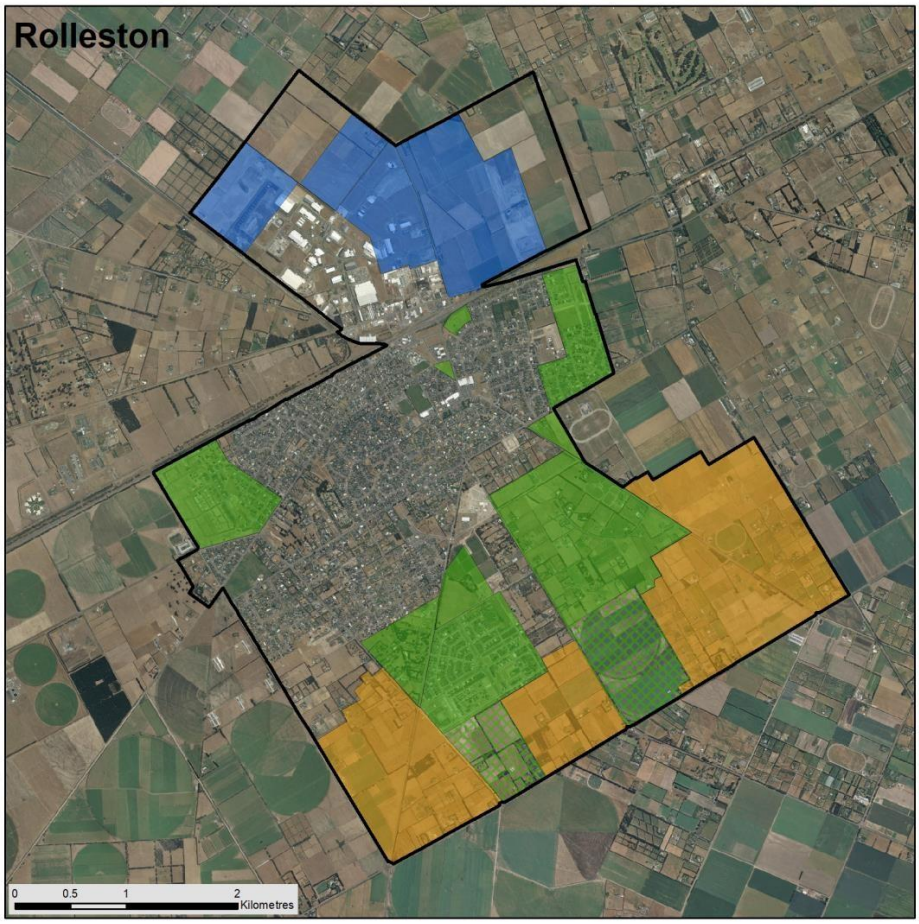


Figure A: Map of Rolleston Future Urban Development Areas (FUDAs)

7. 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.

8. 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.

9. 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.

10. 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 to allow for the land required by these excluded features.

11. Since 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

12. 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.

13. 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.

14. 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.

15. 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 capacity.

16. 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."

17. 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. The project is thus 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.

18. 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.

19. 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.

20. 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.

21. 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.

22. 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.

23. 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 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.