Before the Independent Hearings Panel
at Waimakariri District Council

under: the Resource Management Act 1991

in the matter of: Proposed private plan change RCP31 to the Operative Waimakariri District Plan

and: **Rolleston Industrial Developments Limited**
Applicant

Evidence of Gregory Michael Akehurst

Dated: 6 July 2023

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EVIDENCE OF GREGORY MICHAEL AKEHURST

1 My full name is Gregory Michael Akehurst. I am a founding director at Market Economics and have Bachelors Degrees in Geography and Economics from Auckland University. I have more than 25 years' experience in assessing the economic effects of growth and change in the New Zealand economy. I have particular experience in assessing the effects of growth on existing economics and on urban form. I have also carried out significant work in assessing requirements for housing and business land to assist Councils in setting development and growth strategies and to meet their obligations under national direction (NPS-UDC[1] and NPS-UD[2]). I am a member of the Resource Management Law Association.

2 I have worked on a number of land use and property development projects in the Greater Christchurch area – including establishing Labour models of the Canterbury Rebuild post the earthquakes in 2010 and 2011. This work included building a residential rebuild model of Canterbury to assess the economic and labour implications of alternative rebuild scenarios. In addition, I have worked on a number of economic and residential development projects across the Greater Christchurch area. I am very familiar with the economy and the issues faced by the districts.

3 I am also very conversant with the NPS-UDC and NPS-UD process. I was engaged by MBIE in 2017 to write the guidance manual for Councils looking to evaluate business land sufficiently under the NPS-UDC.

4 Specific to Waimakariri District, I have prepared reports and presented evidence over the years on a number of development issues, including in relation to supermarket development, Key Activity Centre development and change, as well as reviewing a number of Private Plan Changes to the District Plan. I have also peer-reviewed studies into centre assessments and contributed to the methodology of Housing and Business Development Capacity Assessments (*HBAs*) carried out by colleagues under the NPS-UDC and NPS-UD.

5 Market Economics were engaged to develop the original Waimakariri Capacity for Growth Model (*WCGM*) and have been engaged more recently to assist Waimakariri District Council (*WDC*) in updating its economic development strategy. I have had input into the initial economic profile report prepared for WDC.

6 I am also familiar with other residential development issues in and around Christchurch having prepared and provided evidence in a

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[1] National Policy Statement – Urban Development Capacity 2016.

[2] National Policy Statement – Urban Development 2020.

number of hearings in Selwyn District addressing similar matters of growth and capacity.

CODE OF CONDUCT

7 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 9 of the Environment Court Practice Note 2023. 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

8 My evidence will deal with the following:

8.1 Site description and characteristics;

8.2 Greater Christchurch growth future;

8.3 Waimakariri District growth future;

8.4 Waimakariri Capacity for Growth Model;

8.5 Medium Density Residential Standards (*MDRS*) Capacity;

8.6 Issues with the Formative modelling;

8.7 Proposed plan change capacity;

8.8 Urban form context and the NPS-UD;

8.9 Economic costs and benefits;

8.10 Responses to submissions; and

8.11 Responses to the Section 42A report.

SUMMARY

9 WDC has not identified sufficient commercially feasible and reasonably expected to be realised land to cater for anticipated growth. This is primarily due to issues with both the demand projections under-estimating likely urban environment growth and the capacity estimates including land unsuitable for residential development.

10 My evidence shows that proposed PC31 has the potential to address some of these shortfalls such that Waimakariri District will be able to meet its obligations under the NPS-UD, providing residential capacity to meet demand in the short to medium term as well as in the long term.

11 As a result, PC31 will generate a range of economic benefits in terms of contributions to GDP and wellbeing that are long term and sustainable. In addition, the opportunity costs in terms of lost agricultural production are low and any retail and centre impacts are small and short lived.

12 I support the rezoning of the PC31 land from an economic perspective.

SITE DESCRIPTION AND CHARACTERISTICS

13 The proposed private plan change (*PC31*) seeks to rezone approximately 156 hectares of land in Ohoka from Rural to Residential 2, 4A and Business 4. Between 850 and 892 dwellings are enabled by PC31 depending on whether a primary school is delivered. Inclusion of a retirement village in the site may further increase the yield of dwelling units.[3]

14 PC31 is primarily located at 535 Mill Road. The site is for the most part bounded by Whites, Mill and Bradleys Road.

15 The site adjoins the current Ohoka Residential 3 Zone and will extend Ohoka's residential area further south of Mill Road. Detailed site location maps are included in the evidence of **Mr Compton-Moen**.

GREATER CHRISTCHURCH GROWTH FUTURE

16 Under NPS-UD Greater Christchurch is defined as a Tier 1 urban environment and includes the local authorities of Canterbury Regional Council, Christchurch City Council (*CCC*), Selwyn District Council (*SDC*) and WDC. Tier 1 urban environments are high growth areas which are required, every three years, to prove to central government that they are able to provide at all times, at least sufficient urban development capacity in their region or district to meet expected urban demand (plus a margin) for housing in the short, medium and long term.

17 To that end the partner Councils are required to prepare a HBA report that aligns anticipated demand with capacity to highlight

[3] I understand that provisions have been proposed to ensure that traffic generated by PC31 would not exceed the equivalent of 850-892 household equivalents if a retirement village was developed.

(among other things) the degree to which the local authorities have provided sufficient capacity to accommodate urban growth.

18 It is not sufficient to simply align the gross urban demand estimates with gross capacity estimates. Councils are required to provide for a range of housing typologies in a range of locations to ensure that the market provides sufficient choice. This helps ensure that needs are met in an efficient manner and minimises capacity related price distortions that contribute to the housing affordability crisis.

19 Councils are required to ensure at least 20% more urban capacity than demand exists in the short to medium term and 15% more in the longer term. This helps ensure that the market works effectively. However, the resulting urban capacity estimates are to be treated as minimums, and councils are required to carefully consider development proposals that come before them if they provide for significant urban capacity, even if they are out of sequence.

20 Christchurch City, Selwyn District and Waimakariri District form the Greater Christchurch Partnership (*GCP*), working collaboratively to manage growth in the Greater Christchurch urban area. The GCP has prepared an updated Housing Development Capacity Assessment (*HDCA*) in 2023 for the Greater Christchurch area.

21 Total population for the Greater Christchurch territorial authorities estimated in the HDCA was 536,500 in 2022 (Figure 1). This is expected to increase to 708,840 by 2052, an increase of 172,340 (32%), or by around 5,700 people annually.

Figure 1: Total Population Projections for Christchurch City, Selwyn District and Waimakariri District: 2022-2052.[4]

	2022	2025	2032	2052	Total Change
Total Population	536,500	558,640	600,560	708,840	172,340

22 The HDCA contains estimates for urban household demand[5] and feasible housing development capacity. However, these are reported at the district council level only. These aggregate urban results are

[4] *Greater Christchurch Housing Development Capacity Assessment*, Table 28 pg. 43, Greater Christchurch Partnership, March 2023.

[5] The HDCA 2023 refers to household and dwelling demand inter-changeably but these are potentially different, with dwellings being higher than resident households on account of dwellings used for holiday homes and residential visitor accommodation. The HDCA talks only of how households are derived, and does not mention any adjustments to account for non-resident dwellings. This may be a potential limitation of the HDCA, but is difficult to verify based on the numbers provided in the report.

of limited use when looking at understanding how development that might emerge in a specific location within Waimakariri District, such as the Ohoka proposal, impacts on existing planned development, sequencing and the economy.

23 However, household projections underpinning the HDCA are generated by applying a decreasing average household size to the population projections for each District Council. This process sees total household numbers for Greater Christchurch territorial authorities grow from around 207,550 in 2022 to over 286,760 by 2052, an additional 79,220 households over the long term. This increase in and of itself, is far more than the current combined total number of households in Waimakariri and Selwyn today.

24 The Greater Christchurch area (as distinct from the partnership) encompasses only the urban portions of the three territorial authorities which is expected to account for almost 85% of the long term household growth reported in the HDCA 2023 (although in Waimakariri District, the urban share of long term household growth is only 67%, which is well below the average). Waimakariri District's urban environment accounts for approximately 17% of total Greater Christchurch urban household growth to 2052.

25 Figure 2 shows the urban housing demand, capacity and sufficiency in the short, medium and long term (2022-2052) for each district council as presented in the GCP HDCA (2023). In total, there is an estimated surplus of 54,450 dwellings for the Greater Christchurch area over the next 30 years.

Figure 2: Urban Housing Sufficiency within the Greater Christchurch Area in the Short, Medium and Long Term (2022-2052)[6]

	Demand plus Margin	Feasible Capacity	Sufficiency
Short to Medium Term (2022 - 2032)			
Waimakariri	5,600	5,950	350
Christchurch	14,150	94,000	79,850
Selwyn	10,000	11,550	1,550
Total	29,750	111,500	81,750
Long Term (2022 - 2052)			
Waimakariri	13,250	14,450	1,200
Christchurch	37,500	94,000	56,500
Selwyn	27,350	24,100	-3,250
Total	78,100	132,550	54,450

[6] *Greater Christchurch Housing Development Capacity Assessment*, Table 2 pg. 8, Greater Christchurch Partnership, March 2023

26 The issue with these estimates is that the overwhelming volume of surplus capacity is located within Christchurch City and arises as a result of the large volume of infill capacity, as well as in and around-centre intensification (capacity made up of apartments and town houses) that theoretically exists within the city. While these are important sources of capacity to cater for growth, the majority of demand remains for stand-alone dwellings (84%[7]).

27 Those household types will face lower volumes of capacity within the city than they have historically. I note that in the GCP's HDCA report, the authors predict that there is no demand within Christchurch over the short term for stand-alone dwellings, yet in the medium term there is demand for some 361 (on average) each year out to 2032[8]. This figure rises to over 463 dwellings annually out to 2052.

28 This does not seem credible as demand for standalone houses is likely to be present today but will more than likely decrease as a percentage of the total over time as acceptance of the more intensive living arrangements increases.

29 This is not the case in the Greater Christchurch projections for Christchurch where the share of demand for standalone houses in the short term is 0% rising to 25% in the medium term (between 2025 and 2032) and to 40% in the long term (between 2032 and 2052). See Figure 3, below.

Figure 3: Greater Christchurch Urban Dwelling Projections by Typology and District Including Competitiveness Margin

Urban Household Demand by Typology + Competitiveness	Short Term 2022 – 2025		Medium Term 2022 - 2032		Long Term 2022 - 2052	
	Standalone	Multi- Unit	Standalone	Multi- Unit	Standalone	Multi- Unit
Waimakariri	1,914	281	4,794	824	11,114	2,124
Christchurch	0	3,850	2,524	11,615	11,793	25,714
Selwyn	3,490	110	9,601	388	26,285	1,058
Total	5,404	4,241	16,919	12,827	49,192	28,896
Share of Growth by Typology						
Waimakariri	87%	13%	84%	16%	83%	17%
Christchurch	0%	100%	25%	75%	40%	60%
Selwyn	97%	3%	96%	4%	96%	4%
Total	56%	44%	57%	43%	67%	33%

Source: GCP HDCA, Table 34 and M.E.

30 In my view, this is not a likely situation and may point to the modellers underestimating demand for standalone dwellings. While

[7] *Greater Christchurch Housing Development Capacity Assessment*, Table 33 pg 44, Greater Christchurch Partnership, March 2023.

[8] *Greater Christchurch Housing Development Capacity Assessment*, Table 33 pg 44, Greater Christchurch Partnership, March 2023.

the supply of standalone dwellings in Christchurch City may be sufficient to cater for an increase in demand in the short term, by setting the demand value at zero and then projecting an increasing share of total dwelling demand as standalone, doesn't provide me with confidence that the modelling has been handled correctly.

31 When Christchurch City is excluded from the total, the balance of Greater Christchurch is in deficit in the long term (based on the GCP HDCA figures). At the district level, Waimakariri has barely sufficient capacity to accommodate growth in its urban areas (+ 350 in the medium term and +1,200 dwelling capacity over 30 years, based on the current HDCA modelling). While Selwyn has a projected shortfall of 3,250 dwellings over the next 30 years.

32 Given that Waimakariri District is expected to grow at a rate of over 460 dwellings annually in the medium term (inclusive of the competitiveness margin), the surplus (if it represents an actual surplus) represents only a buffer of 3 years' growth. Small changes in the projections over a long period of time have the potential to consume that difference and WDC would need to be agile in zoning or identifying additional capacity to ensure that they continue to provide at least sufficient capacity in the short, medium and long term.

33 This is emphasised by the current shortfall in Selwyn's urban environment (-3,250 in the long term). Households looking for the edge of city location to build a standalone house on a section are likely to make choices between locations in Selwyn and Waimakariri on the edge of Christchurch. If Selwyn District has capacity constraints that are not appropriately addressed[9], then more demand will potentially shift to Waimakariri in the long term, increasing pressure on the limited headroom in capacity there.

WAIMAKARIRI GROWTH FUTURE

34 The Waimakariri District is one of the fastest growing districts in New Zealand. Over the last decade (2012-2022), the district has grown at an average annual rate of 3.0% to reach 67,900 people in 2022. While the GCP HDCA presents one view of projected housing growth in Waimakariri, in this section of my evidence, I consider two other data sources: Statistics New Zealand's (StatsNZ's) latest population projections and Formative's latest growth projections recently adopted by WDC (which I understand are separate from and more recent than those in the HDCA 2023).

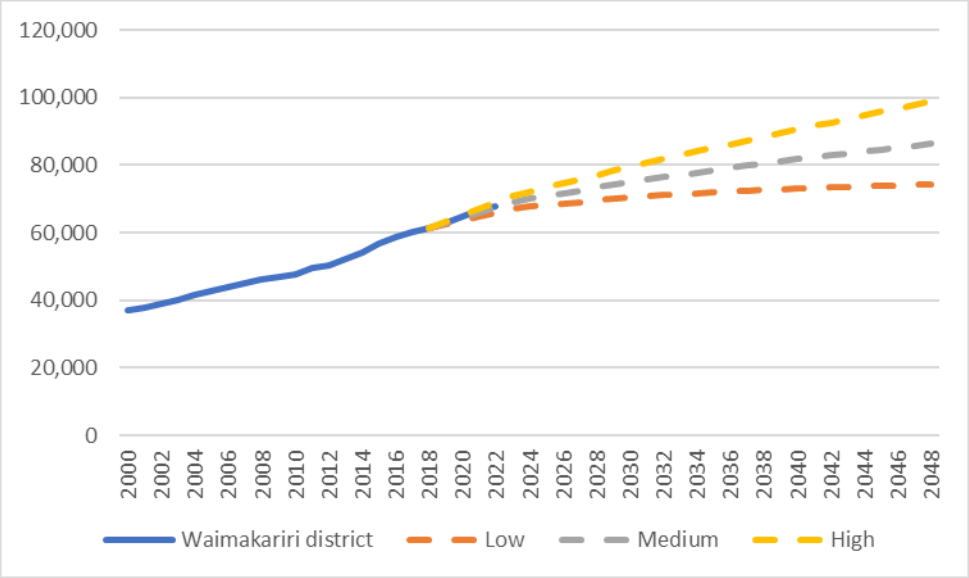
[9] The expectation is that SDC would address this shortfall as they are directed to under the NPS-UD.

Population Growth

35 StatsNZ's most recent estimates of future population growth highlight that Waimakariri District will continue to grow, albeit at a lower rate than recent years. Under the latest medium projection – StatsNZ's most likely outcome - growth over the next 10 years averages around 1.2% annually.

36 Under the latest high growth future - the most appropriate population projection for planning purposes given recent trends - population growth will average 1.7% annually. This sees population increase from 67,970 (2022 estimate) to 81,740 by 2032, 92,640 by 2042 and to over 103,000 by 2052 (Figure 4).

Figure 4: Waimakariri Total District Population growth (2000 – 2022) and StatsNZ projections to 2048 (low, medium and high)



Source: Statistics New Zealand, Dec 2022 Projections

37 The latest projections for Waimakariri District, produced by Formative and recommended for adoption in the LTP 2024-2034, show the district's population will reach 101,791 by 2053 under the preferred high growth series (Figure 5**Error! Reference source not found.**).[10] This is an average population growth rate of 1.3% per annum over the next 30 years. Growth is slightly higher over the next decade (2023-2033) at 1.6% per annum.

[10] *Updated Population Projections to be used for LTP 2024-2034*, Formative Memo, in Council Agenda 4 April 2023

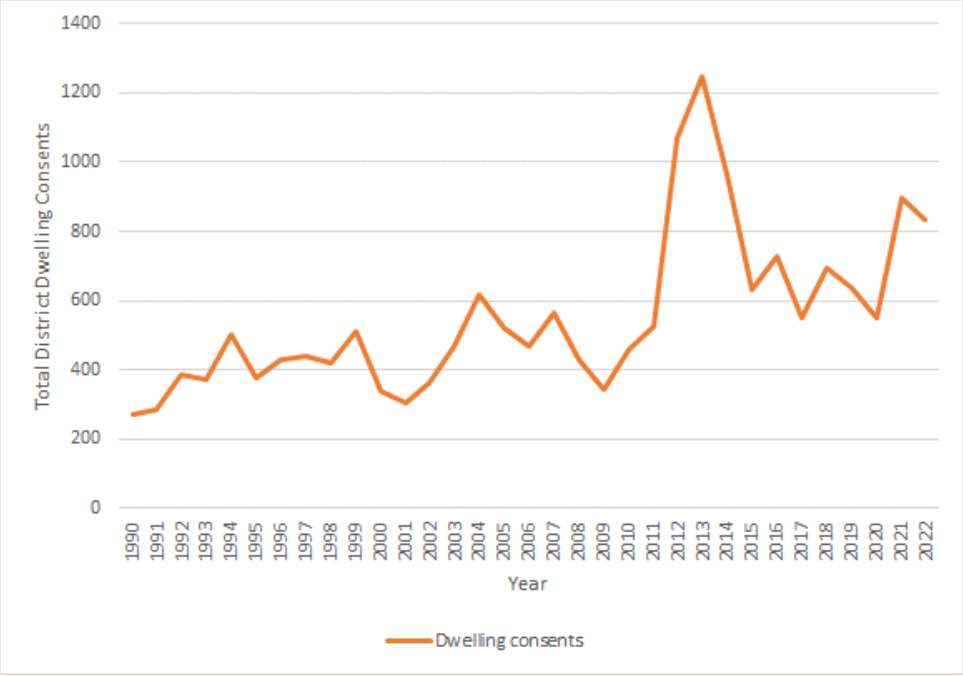
Figure 5: Waimakariri District projections – high series (2023-2053)[11]

	2023	2028	2033	2038	2043	2048	2053
Population	69,789	76,015	81,742	87,055	92,178	97,209	101,791
Dwellings	28,858	31,455	33,879	36,032	37,946	40,131	42,056

38 The Formative population projections are lower than the latest StatsNZ High Series, initially by around 1.6% growing to around 2.3% by 2053. Those differences are not significant, however Council must keep in mind that growth pressure may be greater than anticipated – even though they have adopted a 'high' growth scenario.

39 This is likely to be especially the case in the short term, where most recent consenting information shows strong growth since 2010 (Figure 6). The urban portions of the district are growing well ahead of the short-term projection rate of 610 dwellings per annum to 2025. The past 2 years have had urban building consents at 790 and 713 for 2021 and 2022 respectively.

Figure 6: WDC Dwelling Consents 1990 – 2022



40 I also note that the recent rebounding of net migration figures to above pre-COVID-19 levels (StatsNZ are projecting a net influx of up to 100,000 in the 2023/24 year) may further add to the growth pressure pushing actuals higher than potentially modelled.

[11] https://formative.shinyapps.io/InformProfile-WaimakaririDistrict/

Household and Dwelling Growth

41 Translating the latest StatsNZ high growth projections into resident household growth sees household numbers increase from around 25,390 in 2022 to 30,930 by 2032, 35,120 by 2042 and on to almost 41,240 by 2052 by my estimates. This represents total district growth of around 15,850 households in the long term (excluding any competitiveness margin).

42 This is lower than the total district projections relied on in the 2023 HDCA (17,000 household growth to 2052) but higher than Formative's most recent household projections adopted by WDC (which while based on a higher household count in 2022 than I have used, achieves lower overall long term household growth of 13,041).

43 The difference between the household growth in the latest StatsNZ-based household projections and Formative's most recent projections for WDC is likely to be driven by the fact that the projections generated by Formative take no account of reducing household size over time whereas the latest StatsNZ projections do (as do the household projections in the HDCA 2023).

44 At the total district level, Formative hold the average household size at 2.58 constant over the 30 year projection horizon. StatsNZ start at an average household size of 2.50 persons/household in 2022 reducing over time to 2.34 by 2052. This takes into account an aging population and reducing fertility.

45 The relatively small change in average household size has a large impact in the context of the Formative household projections. By the end of the medium term, the Formative model potentially undercounts household demand by some 2,400 households based on their own population projections. By the end of the long term this has risen to a difference of almost 4,100 households.

46 Formative's latest (high) dwelling projections are summarised in Figure 5 for the total district.[12] Dwellings are projected to increase from 28,138 in 2022 to around 42,100 by 2053.

47 Formative's dwelling projections are based on their household projections. For those dwelling projections, unoccupied dwellings equate to 5.8% of occupied (resident household) dwellings and this share is held constant over the long term. I consider that Formative's dwelling projections are also likely to be substantially underestimated over the long term because the resident household inputs are themselves underestimated (discussed above).

[12] *Waimakariri Inform Profile Data 2022 – 2053*, Formative 2023

Growth Patterns Within the District (Dwellings)

48 Dwelling projections produced by Formative are provided at a statistical area 2 (*SA2*) level for Waimakariri District (roughly equivalent to a suburb within an urban setting). Notwithstanding that the dwelling projections may be underestimated at the district level, the SA2 dwelling projections are still helpful to identify the key areas where growth is likely to occur over the next 30 years within the district as this is a level of detail not provided in the GCP HDCA 2023.

49 Dwelling growth within the district's main townships, Rangiora, Kaiapoi and Woodend/Pegasus, accounts for just under half (48%) of total dwelling growth for the district over the next 30 years according to Formative. Combined, these main townships will see an additional 6,690 dwellings by 2053[13].

50 According to the GCP HDCA (2023), overall housing growth is concentrated into the urban portion of Waimakariri - accounting for around 67% of total district growth[14]. This is lower than for Selwyn District where the urban areas account for 85% of total district growth over the long term.

51 However, these numbers sit at odds with the latest Formative information that shows the urban portion of Waimakariri District accounting for some 84% of district dwelling growth in the long term. These differences make it difficult to know exactly how growth is distributed across the district and how reliable the GCP HDCA urban demand projections are.

52 The largest dwelling growth is projected to occur in the Fernside and Waikuku SA2's, accounting for 24% of total dwelling growth out to 2053 in Formative's latest projections. The average annual growth rate is 3.0% for Fernside and 3.2% for Waikuku. I note that Waikuku SA2 contains both the Waikuku Beach Settlement and the Ravenswood development. Fernside covers the rural land immediately west of urban Rangiora, and in the south abuts Kaiapoi (**Error! Reference source not found.** and **Error! Reference so urce not found.**).

53 These two are followed by the Mandeville-Ohoka SA2 where the PC31 land is located (see highlighted blue shape in Figures 7 and 8).

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[13] *Waimakariri Inform Profile Data 2022 – 2053*, Formative 2023

[14] *Greater Christchurch Housing Development Capacity Assessment*, March 2023 – GCP, Table 30 and Table 31, Page 44.

Figure 7: Waimakariri District Dwelling Growth (Formative, SA2) – Medium Term.

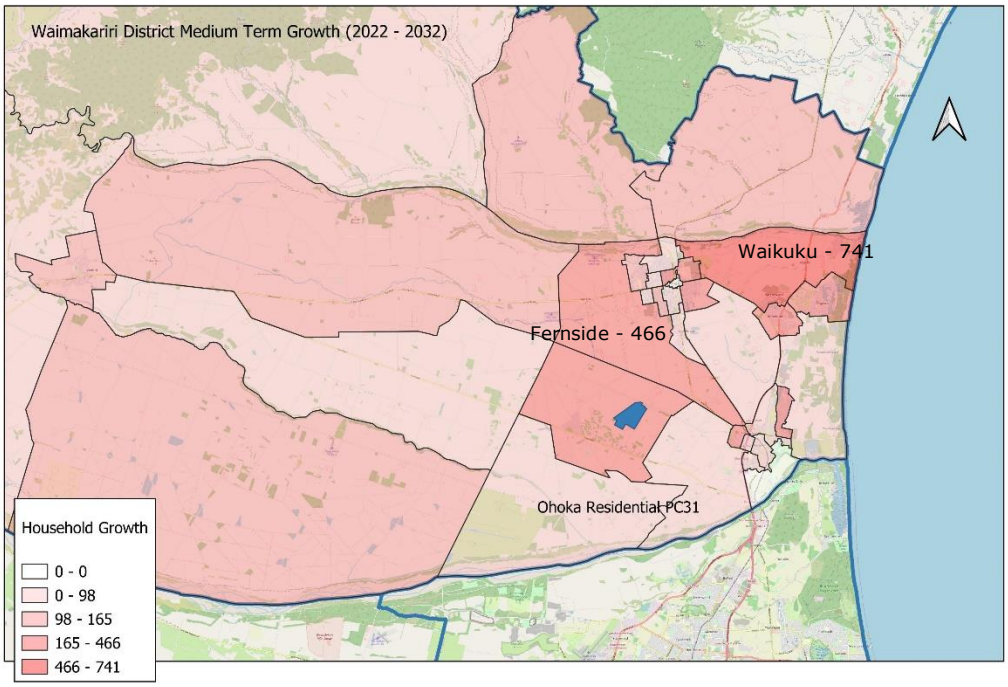
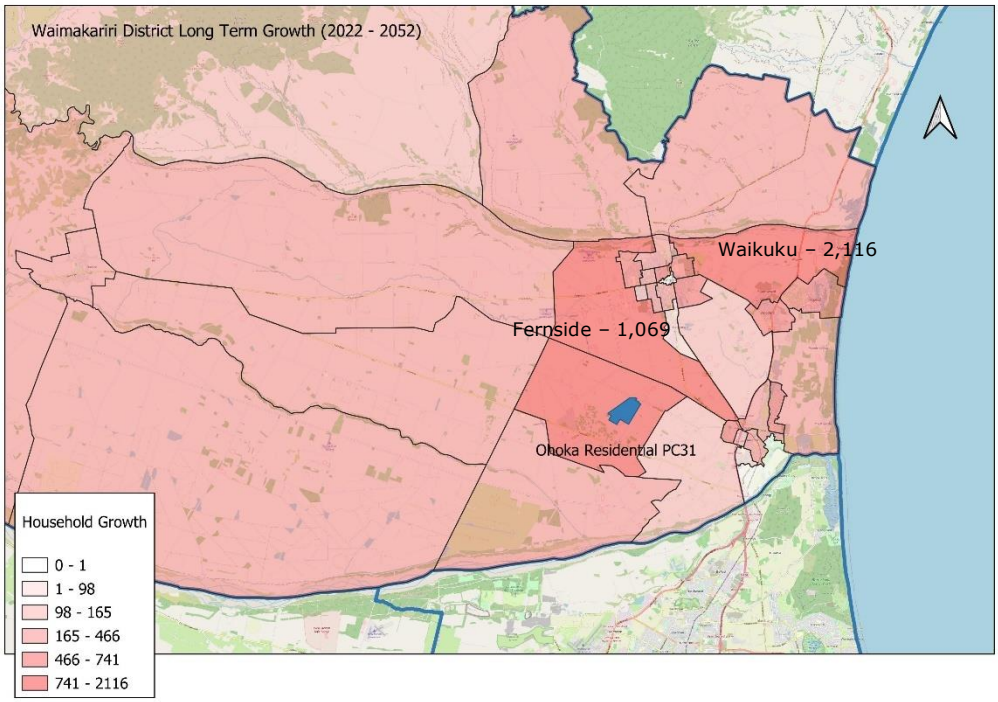


Figure 8: Waimakariri District Dwelling Growth (Formative, SA2) – Long Term



54 Given the concentration of Waimakariri's growth into the urban portions of the district and the market, and proven market acceptance of locating in the Mandeville-Ohoka area[15], the PC31 land is well placed to cater for growth. It has proximity to the major towns within the urban area and is closer to Christchurch than growth areas around Rangiora, Pegasus and Woodend.

WAIMAKARIRI DISTRICT RESIDENTIAL CAPACITY

55 Under the NPS-UD, Councils are required to provide central government with an assessment of the amount of urban residential capacity (plan-enabled, feasible and realistically realisable) to meet anticipated urban residential demand growth in the short (3 years), medium (10 years) and long terms (30 years).

56 The aim is to ensure that the district has the ability to cater for growth in a manner that ensures a well-functioning urban environment, and that housing affordability is improved among other objectives (described below).

57 Waimakariri District's residential capacity is mostly comprised of greenfield capacity within the Future Development Areas (*FDAs*). However, capacity exists within the established townships as vacant parcels. In addition, there will be a small amount of capacity arising from the application of the MDRS to all residential areas. I note that this is likely to only make a small difference for the foreseeable future as acceptance of higher density forms of housing is low in urban fringe areas and townships (such as Rangiora and Kaiapoi).

58 Council has identified three spatially separate greenfield areas available for future residential growth (New Development Areas or NDA's) (Figure 9). They include;

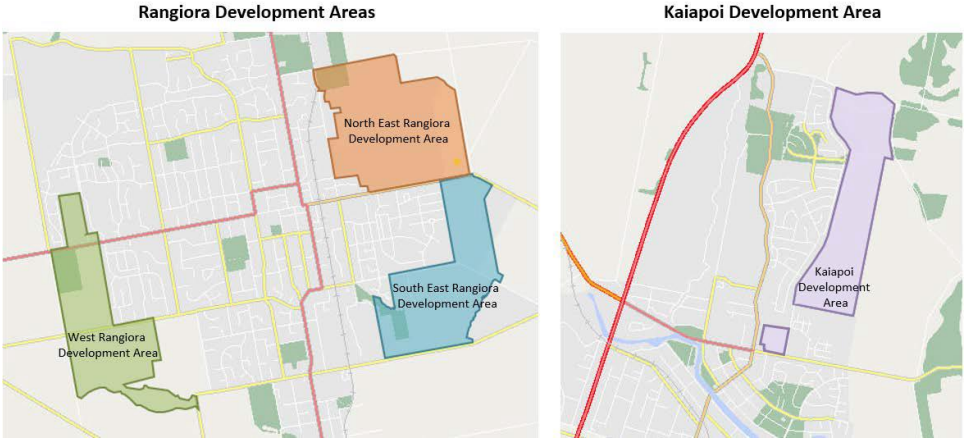
58.1 **North East and South East Rangiora**: Between Coldstream Rd, Golf Links Rd Northbrook Rd and Boys Rd. Council state this block is 235ha in multiple ownership.

58.2 **West Rangiora**: Between Brick Kiln Rd, Oxford Rd, Lehmans Rd Johns Rd and Fernside Rd. This block is 111ha also in multiple ownership.

58.3 **Kaiapoi**: to the east of Sovereign Palms. It is 104ha in multiple ownership.

[15] The Mandeville-Ohoka SA2 has accounted for an average of 5% of all residential building consents in WDC over the past 10-12 years.

Figure 9: New Development Areas in Rangiora and Kaiapoi



Source: Waimakariri District Plan, Section 32 Report, page 5

59 WDC estimate that the 450ha of resulting future residential land in the NDAs yields between 5,000 and 7,000 dwellings. This works out at between 11.1 dwellings per hectare and 15.6 dwellings per hectare. However, updated estimates of the land area covered (evidence of **Mr Sexton**, also referenced in the evidence of **Mr Walsh** for the applicant) measure the area slightly higher at 455ha.

60 By applying an updated density estimate of 12 hh/ha and 15 hh/ha to this measured figure of 455ha, sees dwelling capacity of 5,460 to 6,825 in these NDAs (lower than stated by WDC).

61 This analysis by **Mr Sexton** and **Mr Walsh** carried out in each of the NDAs casts doubt on the WDC estimates of capacity. The analysis has removed areas from each block that are set aside for;

61.1 Stormwater basins;

61.2 Waterways;

61.3 Reserves (Mainpower Stadium);

61.4 The Rangiora High School;

61.5 Businesses – Funeral Directors; and

61.6 Waterway esplanade strips.

62 In addition, they have removed 12.5% of the remaining land in the NDAs to account for future stormwater management areas. The effect of these adjustments significantly reduces the quantum of future available residential land within the NDAs and therefore, future residential development capacity.

63 In addition, they have removed land covered by the High Flood Hazard Area (*HFHA*) overlay. This removes almost 61ha of NDA land from the East Kaiapoi Development Area.

64 Finally, the CIAL Air Noise Contours have been removed in one of the scenarios looked at by **Mr Sexton** and **Mr Walsh**, as it is understood that these are likely to be the final contours (having now been peer reviewed on behalf of Canterbury Regional Council), and will restrict development. To highlight the potential effects of restrictions on noise sensitive activities, I have calculated a scenario of the East Kaiapoi Development Areas not being available to cater for growth (see further in paragraph 73 below).

65 The adjustments described above in the scenarios above cause reductions in residential capacity of between 1,230 and 2,697 dwellings, as detailed in the evidence of **Mr Walsh**. Therefore, this analysis requires reassessment of the residential sufficiency assessment that is in the GCP HDCA (and presented in Figure 2, above). Figure 10, below reduces Waimakariri's residential capacity taking account of the overages highlighted in the assessment of **Mr Walsh** and **Mr Sexton**, but otherwise retains the housing demand reported in the GCP HDCA (although noting that this assumes a low share of district demand is focussed on urban areas).

66 Two scenarios are presented, the first simply removes errors and exclusions as well as removing 12.5% of the land for stormwater management. The second then removes the HFHA from Kaiapoi.

67 For clarification, I will step you through how the 'Revised Feasible Capacity High (and Low)' was calculated for Scenario 1, Short to Medium Term. Note that the Long Term uses the same logic, just a different initial number from the GCP HDCA Feasible Capacity:

67.1 For 'Revised Feasible Capacity High', I have taken the calculated difference vs the 455 ha, that being 107.72ha and the corresponding 1,293 capacity based on 12 hh/ha and subtracted that from the GCP HDCA Feasible Capacity. So, 5950 – 1,293 = 4,657.

67.2 For 'Revised Feasible Capacity Low', I have taken the calculated difference vs 455 ha, that being 107.72ha and the corresponding 1,616 capacity based on 15 hh/ha and subtracted that from the GCP HDCA Feasible Capacity. So, 5,950 – 1,616 = 4,334.

67.3 Note that it is the same logic for Scenario 2 – Short to Medium Term, as described above, just using different numbers. For the 'High', 160.75 ha converts to 1,929 capacity based on 12hh/ha, so calculates at 5,950-1,929 = 4,021. For

the 'Low', 160.75 ha converts to 2,411 capacity based on 15hh/ah, so calculates at 5,950 – 2,411 = 3,539.

Figure 10: Revised Urban Housing Sufficiency within Great Christchurch in the Short, Medium and Long Term (2022-2052)

1. Gross, less exclusions/errors, less 12.5% stormwater:	Demand plus Margin	Feasible Capacity	Sufficiency	Revised Feasible Capacity High	Revised Feasible Capacity Low	Revised Sufficiency High	Revised Sufficiency Low
Short to Medium Term (2022 - 2032)							
Waimakariri	5,600	5,950	350	4,657	4,334	-943	-1,266
Christchurch	14,150	94,000	79,850				
Selwyn	10,000	11,550	1,550				
Total	29,750	111,500	81,750			80,457	80,134
Long Term (2022 - 2052)							
Waimakariri	13,250	14,450	1,200	13,157	12,834	-93	-416
Christchurch	37,500	94,000	56,500				
Selwyn	27,350	24,100	-3,250				
Total	78,100	132,550	54,450			53,157	52,834
2. Gross, less Kaiapoi HFHA, less exclusions/errors, less 12.5% stormwater:	Demand plus Margin	Feasible Capacity	Sufficiency	Revised Feasible Capacity High	Revised Feasible Capacity Low	Revised Sufficiency High	Revised Sufficiency Low
Short to Medium Term (2022 - 2032)							
Waimakariri	5,600	5,950	350	4,021	3,539	-1,579	-2,061
Christchurch	14,150	94,000	79,850				
Selwyn	10,000	11,550	1,550				
Total	29,750	111,500	81,750			79,821	79,339
Long Term (2022 - 2052)							
Waimakariri	13,250	14,450	1,200	12,230	11,675	-1,020	-1,575
Christchurch	37,500	94,000	56,500				
Selwyn	27,350	24,100	-3,250				
Total	78,100	132,550	54,450			52,230	51,675

68 In the short to medium term, the reduction in capacity results in WDC moving from being in a position of capacity meeting demand (i.e., a 350 surplus of dwelling capacity) to being unable to meet growth demands. The resulting shortfall is between 940 and 1,270 dwellings in scenario 1 to 1,580 and 2,060 in scenario 2.

69 With the original WDC published numbers, even if not all of the future development areas are anticipated to become available in the medium term (out to 10 years), it only takes a reduction of 23ha of land currently included into the capacity estimates to place Waimakariri into a deficit (23ha x 15 dwg/ha = 350 dwellings total).

70 In the long term (out to 2052) the reassessment of capacity results in a shortfall between 90 and 420 dwellings under scenario 1 and between 1,020 and 1,580 dwellings under scenario 2.

71 These findings indicate that, contrary to the results reported in the GCP HDCA 2023, WDC is not in fact meeting its obligations under the NPS-UD and is not providing sufficient residential capacity to

meet residential growth plus a competitive margin in the short to medium term or the long term.

72 On this basis alone, WDC needs to be actively engaging with developers to identify suitable, well-located and feasible development sites to accommodate future growth. The PC31 land proposed to be developed by the applicant has the potential, in the short to medium term to meet most, if not all, of the identified shortfall.

73 However, the position WDC find themselves in may be worse. There is some concern that approximately 104ha of the NDA identified in East Kaiapoi Development Area is subject to the 50db Air Noise contour which may restrict further residential development. If this is the case, then the shortfall in the short to medium term increases to between 1,870 and 2,425 dwellings (which is even greater than scenario 2). This is detailed in the evidence of **Mr Walsh**.

74 These shortfalls are significant and need to be addressed to avoid the economic and social costs of undersupply of residential land (housing affordability reduces and prices rise where there is such an undersupply, leading to households having to choose sub-optimal housing in sub-optimal locations).

MDRS CAPACITY

75 Central Government requires WDC to apply MDRS across existing and greenfield areas in Rangiora, Kaiapoi, Woodend, Ravenswood and Pegasus. In theory, this would allow significantly more residential development with up to three 3-storey dwellings to be built on a section without the need for a resource consent.

76 While this would increase plan enabled capacity by a vast amount, it is unlikely that much will be developed. The reason is that in these non-core urban areas, people are not willing to accept the higher density forms of development MDRS facilitates. The trade-off for a reduction in private space is insufficient to stimulate demand. In the core urban centres, MDRS makes sense close to centres with high levels of amenity or employment allowing households to purchase at a lower cost and be closer to jobs, shops and services.

77 I note that the Formative projections of commercially feasible and reasonably expected to be realised capacity take into account the MDRS position in Waimakariri, concluding that in general those enabled densities will not be supplied.

ISSUES WITH THE FORMATIVE MODELLING

78 The re-assessment of capacity available in the NDAs, carried out above, does not address the accuracy of the balance of capacity

estimated by WDC, that is capacity identified within developed areas, and it also takes the demand projections generated by Formative as a given.

79 However, as outlined in **Mr Sexton's** evidence, an assessment has been carried out of all the parcels included in the Formative capacity model and this has identified a number that are parks and reserves, schools, road designations and waterways plus esplanade strips (see APPENDIX 1

80 Figure 177 and Figure 188 in Appendix 1).

81 Specifically, **Mr Sexton** identifies a number of errors based on the excel spreadsheet Formative supplied from their capacity model that contained lot numbers, areas, township locations, and projected medium term and long term feasible dwelling yield.

82 By joining the file to LINZ's primary parcel file allows the parcels to be overlaid on aerial photo, plan zones, etc, to identify current land use and suitability.

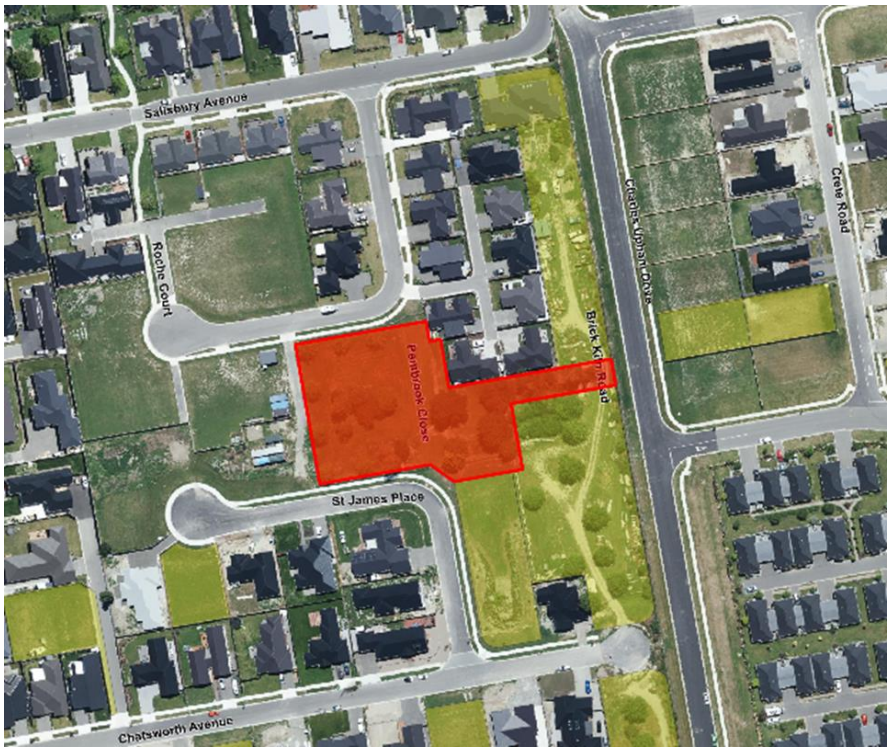
83 A sample of issues outside of NDAs identified include:

83.1 Example 1: Parcel ID 3320801 which is a remnant parcel identified as having capacity for 3 dwellings in the short to medium term (Figure 11). However, as the figure below shows, its shape and location make this impossible.

Figure 11: Parcel 3320801, Rangiora, included as Residential Capacity, WDC 2023

83.2 Example 2: Windsor Park in north-western Rangiora (Figure 12). This was vested to Council for the purposes of a recreation reserve and therefore, is not available for residential development.

Figure 12: Windsor Park, Rangiora included as Residential Capacity, WDC 2023



83.3 Example 3: Parcel ID 3442347 is an Esplanade and is part of the Esplanade overlay (Figure 13). Given that a number of Esplanade areas are included in the Formative model implies that the Esplanade Overlay may not have been considered in generating capacity estimates at all.

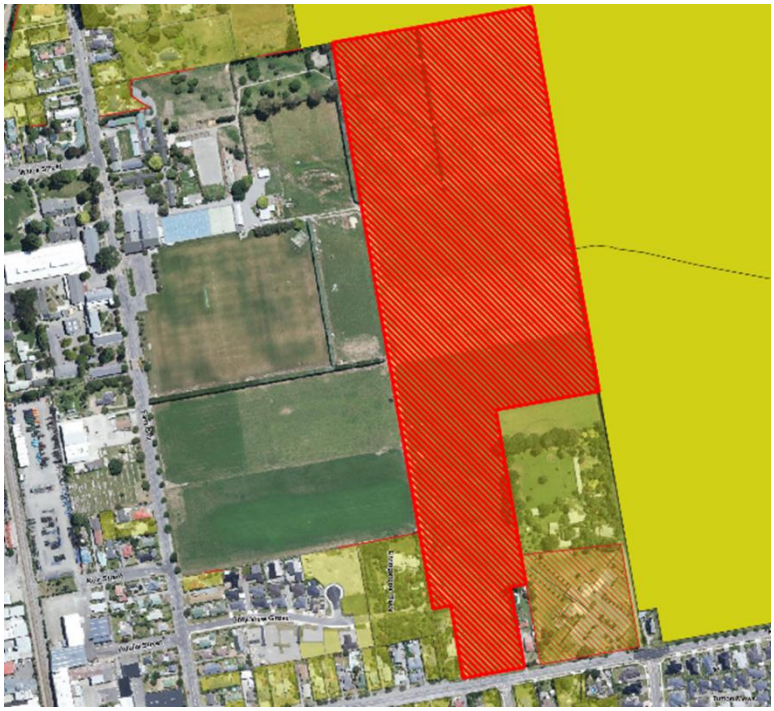
83.4 This parcel is identified to provide for 72 lots and most is still available for residential, but no allowance appears to have been made for the area that cannot be developed

Figure 13: Esplanade Strip included as Residential Capacity, WDC 2023

83.5 Example 4: being one of the largest areas identified as having future development potential (Figure 14). However, Formative have included land currently owned by Rangiora High School Board of Trustees that includes a designation that it is to be used for the purpose of being a secondary school.

83.6 In the Formative model it is supposed to provide 237 dwellings within the long term.

Figure 14: Rangiora High School land included as Residential Capacity, WDC 2023



84 These errors point to a model that has been developed with limited oversight and limited (if non-existent) peer review processes. It is very easy to become captured by the process of modelling and potentially lose sight of the real-world relationships and constraints on development.

85 On the capacity side, the fact that parks and reserves, school areas, stadium expansion areas, and waterway esplanades are included as residential capacity is a clear sign of this and until the point where the Formative modelling is peer-reviewed, I do not have strong confidence in the outputs in terms of both demand or supply.

86 While the volumes of additional capacity in the identified areas may be relatively small, the margins of sufficiency in Waimakariri are exceedingly thin. This means that extra vigilance should have been applied to the results and this does not appear to have happened here.

87 On the demand side, as described above, the demand projections relied on in the GPC HCDA are different from those that WDC has recently adopted from Formative. Different assumptions have been applied in terms of overall growth and the share of growth focussed on the urban environment. While I have not shown scenarios that compare re-assessed urban housing capacity with Formative's latest dwelling projections (including a margin), I would be hesitant to do so given that the resident household component of those total

dwelling projections is considered to be significantly understated due to a failure to account for a reducing household average size in Waimakariri. By my estimates, this leads to issues in the short to medium term (resident dwelling under count by approximately 2,400) and long term (4,100 under count).

On the basis of these findings, I consider it is vital that Council engage with developers proposing additional capacity in well-located areas that have the ability to provide capacity in the short to medium term to ensure the adverse effects of under supply do not cause economic harm to Waimakariri District.

PROPOSED PLAN CHANGE CAPACITY

88 The capacity provided by PC31 is between 850 and 892 dwellings (depending on the development of a school or not), indicatively anticipated to be staged over a 10-year period from 2026 to 2036. The final yield and dwelling mix are dependent on a range of factors – including market acceptability (and the inclusion of a retirement village).

89 The proposed plan change capacity can be further defined within the south-eastern part of the district, the area south of the Ashley River and east of Mandeville (inclusive). The townships within this area have similar characteristics to the PC31 site, including commuting distance from Christchurch City.

90 PC31 is located south and west of Rangiora and north and east of Mandeville. It is well located with respect to market growth (Figure 7 and 8, above) and is likely to attract existing and new households from within Waimakariri and potentially some households that may have chosen to build in Christchurch or Selwyn District.

91 Total dwelling growth during the development timeline (between 2026-2036) for Waimakariri District is anticipated to be around 5,640 dwellings[16]. That is an increase of around 564 dwellings per year. Therefore, if PC31 is developed in line with growth it will represent approximately 15% of district dwelling growth over the same period.

92 While 15% represents the total share of growth captured over 10 years, this will vary year to year, depending on build out schedules and market movements. In addition, the degree to which the PC31 development attracts new households into Waimakariri (not otherwise anticipated in the growth projections) reduces the share of Waimakariri growth required.

[16] This is based on applying the StatsNZ population per household ratios to the high population projections.

93 However, it is not reliant on attracting outside interest in order to be viable. As shown above, I consider that Waimakariri has significant capacity constraints in the short to medium term that PC31 has potential to address.

URBAN FORM CONTEXT AND NPS-UD

94 It is important that developments such as that proposed in PC31 are consistent with the intent of the NPS-UD by helping to meet the objectives of the Policy Statement.

95 The NPS-UD contains 8 key objectives supported by 11 policies that give effect to the NPS-UD. It is important to note that the capacity requirements in the NPS-UD are minimums, not targets to be met by Councils. Councils must achieve at least the minimums in the NPS-UD, in order for the policy to be achieved.

96 This means that proposals such as PC31 should not be dismissed simply on the basis that a particular housing sufficiency assessment has indicated that the minimum has been achieved. It is important to assess how the proposed development contributes to the overall well-functioning urban environment.

97 The objectives of the NPS-UD are set out in detail in the evidence of **Mr Walsh**. In summary, Councils must achieve;

97.1 A well-functioning urban environment;

97.2 Improvements to housing affordability with competitive land and housing markets;

97.3 Capacity in areas of high demand or close to existing centres, employment nodes and/or public transport routes;

97.4 Recognition of change in amenity values over time;

97.5 Decisions must take into account principles of Te Tiriti o Waitangi;

97.6 Decisions that are integrated with infrastructure planning and funding, are strategic and are responsive – especially when significant development capacity is added;

97.7 A robust and frequently updated urban environmental data set; and

97.8 An urban environment that supports reductions in greenhouse gases and are resilient to the effects of climate change.

98 In my opinion, based on my assessment, PC31 helps Council achieve a number of the objectives outlined in the NPS-UD.

99 **Objective 2** (supported by Policy 1 and 2 – mainly) says that planning decisions are to improve housing affordability by supporting a competitive land market. PC31 seeks to rezone approximately 156 ha of land from rural to residential. Adding this significant amount of land to the market improves competition as house buyers have more choice. I discuss the effects of improved competition in the Economic Costs and Benefits Section, below.

100 This has the effect of keeping residential land price at a competitive level ensuring housing affordability is improved.

101 **Objective 3** states that Councils need to provide capacity where there is high demand for housing and/or the area is well serviced by public transport (existing or planned) and/or is near a centre zone or employment area. PC31 achieves the first of these objectives (which my expertise can comment on), the rest of these objectives is covered by other expert evidence.

102 As shown in Figures 7 and 8 above, the PC31 land is in the middle of the high growth areas of Waimakariri. It sits closer to the Christchurch Urban edge than Rangiora or Woodend/Pegasus. And is proximate to Mandeville and the existing Ohoka residential areas.

103 It has the potential, through the inclusion of a retail and service centre on its northeastern edge, to offer employment opportunities to a portion of residents. In addition, it sits 24km from the Christchurch CBD, 8.5km from central Kaiapoi (10 – 15 minutes) and a similar distance to Rangiora 10.4km, (14 minutes at 8:00am – 8:30am). This means that residents located in the PC31 development have good access to employment opportunities.

104 **Objective 6** states that decisions Council make with respect to urban growth and change are (among other things) strategic over the medium and long term and are responsive to proposals that would supply significant development capacity.

105 PC31 is a strategically important location for growth in the short to long term. As Christchurch continues to grow, opportunities for well-planned proximate residential developments offering standalone house and land packages within commuting distance will become scarce.

106 Finally, with respect to **Objective 1**, Councils must ensure that decisions they make on providing for residential and business capacity, help ensure that New Zealand has well-functioning urban environments that enable all people and communities to provide for

their social, economic, and cultural wellbeing now and into the future.

107 This objective embodies all the following objectives as in combination, objectives 2 – 8 (if met) ensure that Council will have achieved objective 1. To that end, based on the assessment above, I believe that from an economic perspective, PC31 assists Waimakariri District to achieve Objective 1 of the NPS-UD.

NPS-UD POLICIES

108 The NPS-UD requires (Policy 2) that Councils in Tier 1, 2, and 3 local authorities (Waimakariri District is a Tier 1 local authority), at all times, provide at least sufficient development capacity to meet expected demand for housing over the short term, medium term and long term.

109 In addition to this, the NPS-UD has recognised that providing significant additional development capacity has benefits assuming it contributes to a well-functioning urban environment – regardless of whether the additional capacity is anticipated (by way of an existing growth strategy or future land zoning) or not. Policy 8 clearly encourages local authorities to be:

> "*responsive to plan changes that would add significantly to development capacity and contribute to well functioning urban environments, even if the capacity is:*
>
> *a) Unanticipated by RMA planning documents, or*
>
> b) *Out-of-sequence with planned land release*"

110 In the case of PC31 the development capacity has not been anticipated in the RMA planning documents and it is out of sequence with planned land release. However, PC31 could potentially add 850-892 dwellings to Ohoka. This is a significant addition of capacity at the Ohoka level and the Waimakariri District level. Therefore, it is incumbent on Council to be responsive to this proposal.

111 The definition of 'well-functioning' urban environments is contained in Policy 1 of the NPS-UD. It states that they are urban environments that, as a minimum (with respect to housing and economic matters):

a) Have or enable a variety of homes that meet the needs in terms of type, price and location of households

b) ….

c) Have good accessibility for all people between housing, jobs, community services, natural spaces and open spaces including by way of public or active transport, and

d) Support, and limit as much as possible adverse impacts on the competitive operation of land and development markets, and

e) …

f) …

112 It is clear that the additional residential capacity as proposed, with a range of lot sizes, enabled by the proposed plan change will help facilitate a variety of dwelling typologies and dwelling options.

113 Ohoka is an appropriate location based on its accessibility to places of employment, services, and natural and open spaces. The development is approximately 8.5km from the centre of Kaiapoi (road distance) and 10.4km from the centre of Rangiora. These are very easy commutes. It is 24km from Christchurch's central business district and a similar distance for the International Airport.

114 Finally, by adding 850-892 residential lots to the market, PC31 supports the competitive operation of residential land and development markets, I discuss this further below.

ECONOMIC COSTS AND BENEFITS

115 A rezoning application such as proposed in PC31 generates a range of costs and benefits that must be considered in reaching a decision on proceeding or not. The majority of these are associated with the degree to which the proposal helps WDC achieve a well-functioning urban area by assisting in addressing an emerging residential capacity shortfall.

116 As I have outlined above, errors and misunderstanding about the nature and scale of land included in the NDAs have led to a situation where WDC is no longer meeting its obligations to provide sufficient capacity to cater for growth in the short, medium and long term.

117 A portion of the economic benefits are effectively the avoided costs associated with lack of housing supply (price rises, sub optimal decision making, etc).

Economic Benefits

Housing Supply Increase

118 PC31 is expected to deliver between 850 and 892 dwellings indicatively over 10 years. This will mostly eliminate the gap

between the reduced capacity identified above and anticipated demand.

119 The increase in housing supply helps the market respond to growth more efficiently – reducing the housing price increases associated with supply shortages in a growing market.

120 This is important in Waimakariri where the median sale price has increased between December 2021 and December 2022 from $609,000 to $725,000 (a 19% increase in one year). This was a significantly greater shift than in Christchurch City where the increase year on year was 9.4% and even higher than Selwyn District (the fastest growing district in New Zealand excluding Queenstown Lakes) where the median sale price rose around 14%[17].

121 The Ministry of Housing and Urban Development use CoreLogic data to compare the median sale price with median incomes to highlight the ability of an average household to afford an average dwelling. In Waimakariri's case it takes 9 median incomes to afford the median house price. This compares with the accepted standard measure of affordability (3 x median incomes). This highlights the existing issues of affordability in Waimakariri that additional housing supply can help alleviate.

122 In the context of the HDCA, Councils are asked to consider proposals that look to deliver a significant increase in capacity. There is no standard measure of 'significant' in the NPS-UD. However, in my view PC31, which if consented provides up to 892 dwellings (equivalent to 16% of the medium term growth projected in urban Waimakariri in the HDCA (5,600, including the competitiveness margin)), represents a significant capacity addition.

123 Currently, I estimate that the Waimakariri medium-term urban residential capacity sits between 4,480 and 4,900 (once adjusted as described above). This means that the addition of up to 892 dwellings is equivalent to adding 18% - 20% capacity.

Land Market Competition

124 By approving PC31 an additional 156ha of mostly residential land becomes available to the market. This increase in competition has the effect of causing other landowners in the district to bring their land to market as efficiently and in as timely a manner as possible.

125 This is because, if competition does not exist, other landowners experience a higher degree of market power, relating to the partial monopoly they hold over supply of residential land.

[17] Source: HUD Local Housing Statistics Dashboard, https://www.hud.govt.nz/stats-and-insights/local-housing-statistics/key-data/#tabset

126 Monopoly of supply means landowners become price setters (in a profit maximising world, at a price defined by where their marginal revenue from bringing a new section to market matches the marginal cost of doing so). The price that is set is always higher than the price that would result in a fully competitive market. This means that the landowner captures 'super profits' (basically the difference in price between what is set and the free-market price times the volume of sales made). In addition, there is an amount of dead weight welfare loss to the district overall. This arises because a sub-optimal amount of sections come to market thereby reducing buyer welfare and overall developer welfare (excluding the single monopolist).

127 Avoiding or minimising the effects of monopolistic competition with respect to residential land is a significant economic benefit from PC31 consenting.

Retail and Household Service Demand Increases

128 Associated with the residential development is an area of business land that will accommodate a retail and service centre at the north-eastern edge (adjacent to the Ohoka Domain and close to existing Ohoka residents).

129 This will be mostly sustained by the increased retail demands arising from the residential development on the PC31 land. The centre's effects are covered by **Ms Natalie Hampson** in a separate piece of evidence. However, there are wider benefits to the district that arise from its presence, including additional employment opportunities and an ability to meet a portion of household needs slightly closer to home than currently for existing nearby residents.

130 In addition, the up to 892 new households will spend money across a variety of centres within Waimakariri. On average the new households will spend around $72,000 annually on a wide range of goods and services. Approximately $33,000 of this spend is directed to retail outlets. This means that total retail demand in Waimakariri arising from PC31 once fully developed will be between $28m and $29.4m annually.

131 Not all of this spend will be directed to Waimakariri retail outlets, but a significant portion will be, sustaining jobs and centre vitality. Added to this are the services and people activity generated by an additional 2,000 – 2,200 people (approximately). They will help support the provision of a range of services, support local medical practices and help sustain or improve the viability of public transport initiatives.

Construction and Development Economic Effects

132 The final key area of economic effects arise from the process of developing the land, bringing it to market and the resulting civil

works and construction activity to build the houses and associated infrastructure as well as the proposed centres.

133 At this early stage, details of the type and nature of buildings to be developed are not known, therefore I have relied on average dwelling sizes for the proposed lot sizes and the latest information from Quotable Value (*QV's*) Cost Builder software to generate estimates of build costs for the PC31 land.

134 I have also generated estimates of the civil construction and infrastructure costs the developer will need to pay to convert the land from rural to urban.

135 Finally, I have generated estimates of costs associated with developing 2,500sqm of commercial centre space (this is conservative as I understand the commercial centre analysis is based on a supportable range between 2,500 and 3,000sqm total GFA).

136 The land development, civil infrastructure and subdivision costs equate to between $90,000 and $100,000 per lot. This covers all provision for ground improvements, services and roading for the proposed development. In order to be conservative, I have adopted the lower range.

137 Multiplying this through the development process injects around $76.5m into the civil construction sector over the duration of the build out. It is likely that these works are skewed to the short term with the build out stretching over the full 10 years.

138 In terms of residential construction costs, I have adopted QV residential build costs for Christchurch and applied them to an average dwelling size of 180 sqm for the Residential 2 land. The approximately 700 dwellings there would therefore cost $360m to build over the development timeline.

139 In addition, the 150 dwellings built on the Residential 4a land are expected to be larger and have a higher cost per square meter to develop. I have assumed 250sqm dwelling at $5,500/$m^2$. This adds $206m to the construction sector.

140 The proposed local centre near the north-eastern corner of the land is recommended to contain no-less than 2,500sqm GFA. Average construction costs for this amount of floorspace add a further $6m to the estimated construction sector output shock over the short term.

141 This expenditure sustains employment in the construction sector, supports business owners and business supply chains. Residential construction has strong local supply chains which means that

additional house building sustains significantly more jobs in total than simply the builders on site.

Figure 15: Estimated PC31 Construction Sector Economic Effects

New Residential Dwellings		850
Commercial GFA (sqm)		2,500
Cosntruction Sector Effects		
Total Gross Outupt Shock ($m)	$	647.8
Value Added Component ($m)	$	161.5
Direct Employment (equivalent job years)		1,643
Multiplier Effects		
Total Gross Output ($m)	$	1,028.6
Total Value Add ($m)	$	324.3
Total Employment (equivalent job years)		2,997

142 Figure 15, above summarises the construction effects on the economy in total and are likely conservative as I have not included the build cost of a primary school (or the equivalent dwellings if not supplied). These effects will be distributed across the 10 years or so of development, giving approximately $65m construction sector input each year, sustaining some 164 jobs directly (each year).

143 Value added captures profits, taxes, depreciation and wages and salaries. This is estimated to be on average $16m annually over the build timeline - $161.5m in total.

144 The flow on effects, or multiplier effects capture both the supplier businesses to the construction sector and the retail and service sectors supporting direct and indirectly impacted workers. The flow on effects increase total value added to $324m and sustain the employment equivalent of almost 3,000 job years.

145 It is likely that this employment and the benefits that flow from it will be distributed between businesses in Waimakariri and Christchurch City, given the scale of development.

146 While these can be viewed as 'one-off' impacts, the construction sector relies on a constant stream of "one-off" impacts such as the PC31 development, in order to remain sustainable. By providing a degree of certainty for at least part of the sector over a ten-year horizon means this is a significant positive effect.

Economic Costs

147 The largest economic cost is likely to be the opportunity costs associated with utilising the land for residential purposes as opposed to agricultural purposes.

148 The majority of the land is classified as LUC 3w 1, which means it is considered highly productive – albeit at the lower end of the productive range. Maanaki Whenua Landcare Research describe LUC3 as:

> *"Arable. Moderate limitations, restricting crop types and intensity of cultivation, suitable for cropping, viticulture, berry fruit, pastoralism, tree crops and forestry."*

149 I understand that a report prepared by Mr Mark Everest, and attached to **Mr Walsh's** evidence considers the economic viability of potential productive uses of the Site. I separately provide some broad estimates of the levels of return the land could generate if it was used for arable farming (as the LUC indicates).

150 New Zealand arable farming is close to the most productive in the world due to climate, soils, high yield crops, use of irrigation and skilled farmers. Gross margins for the key grain crops range between $1,500 and $2,000 per ha and for key seed crops between $2,000 and $4,000 per ha[18].

151 This results in the loss of gross returns from the 156ha proposed to be rezoned to range between $234,000 and $624,000 annually. My upper limit is proximate to Mr Everest's assessment (attached to **Mr Walsh's** evidence) for irrigated horticulture (refer Figure 1 of that report, EBITR Achieved). While these numbers are robust, Mr Everest points out that it would be unlikely to meet the accepted 'Return on Capital' threshold of 4% once capital costs are accounted for. Hence, it is his conclusion that such land use would not be economic viable over the long term.

152 Even if a landowner was willing to accept a return rate lower than the accepted threshold, the potential returns from arable crops on the Site are a fraction of both the overall agricultural output from Waimakariri and are an extremely small portion of the additional economic activity that 850 to 892 new households would bring to the district.

153 The loss of primary production output from the 156ha will in no way compromise the agricultural economy in Waimakariri – even if the loss of agricultural production of this piece of land is permanent.

Impact on Established Centres

154 Finally, I acknowledge that there will be some impact on established retail centres arising from the development of a new centre that mainly supports the residential land.

[18] Foundation for Arable Research, www.far.org.nz.

155 These impacts are covered in Ms Hampson's evidence in some detail, so I adopt her findings here. Given the overall scale of growth experienced in this part of Waimakariri and the small-scale nature of the proposed GFA in that centre, the resulting impacts will be both minor and short lived.

RESPONSE TO SUBMISSIONS

156 A number of submissions received require a response in terms of the economic issues raised. I deal with each in turn.

Submission 216: Waimakariri District Council

157 WDC oppose PC31 on 6 grounds:

- Form of development;
- Highly Productive Soils;
- PC31 is not centres based;
- Adverse impacts on infrastructure networks;
- Limited economic evidence in support of the application; and
- Costs or externalities arising from the development not assessed and may be present.

158 As I have outlined in my evidence above, PC31 helps meet a number of objectives and policies contained in the NPS-UD, not simply Policy 8 (the need for Councils to be responsive to plan changes that would add significantly to development capacity even if they are unanticipated or out of sequence).

159 PC31 has the potential to fill gaps in capacity caused by an incomplete assessment of new and future development areas and through underestimating future demand growth in WDC's latest projections. In doing so, PC31 helps WDC meet Objectives 1, 2, 3, 6, and 8 of the NPS-UD.

160 With respect to Highly Productive Soils, it is my understanding that if the land is zoned Rural Lifestyle Zone then the NPS-HPL may not apply. I also understand that that may be part of the Proposed District Plan hearings.

161 Regardless, I have generated an assessment of the impact of losing 156ha of HPL (mostly LUC 3 soils), above. The impacts I have estimated equate to gross return of up to $624,000 for arable Farm returns. I understand Formative have estimated dairy returns to be higher (under $2m annually). While higher than my estimate, they are not materially different and more than overshadowed by the

economic activity generated by 850-892 households residing on the same land area.

162 Third, WDC point out that PC31 runs counter to a centres based approach to development. The evidence of **Ms Natalie Hampson** addresses the impacts of the proposed commercial centre. My understanding is that a GFA cap will ensure it is appropriately sized and will not generate significant adverse effects on surrounding centres.

163 I note that Waimakariri has failed to provide sufficient development capacity in very close proximity to established centres and that residential growth needs to be a mix of adjacent to centre as well as other options – including in more greenfields locations. PC31 meets these needs while minimising adverse impacts on the existing centre network.

164 In terms of infrastructure impacts, I do not believe that is an issue. As outlined above, WDC and the applicant can form a Development Agreement to address any issues of infrastructure costs.

165 While it may not be the case that the existing Development Contributions (DC) framework caters appropriately for growth related infrastructure, there are mechanisms to deal with just these situations under the Local Government Act 2002.

166 In terms of economic information to support the application. I have addressed significant issues relating to the provision of residential capacity while **Ms Natalie Hampson** addresses retail and commercial centre impacts. Council will have sufficient information to assess the merits of the plan change.

167 Finally, with respect to other externalities, the applicant has evidence prepared by a range of experts to address issues of any adverse impacts on landscape, visual, amenity, soil contamination, noise, construction impacts and indigenous fauna.

168 On balance, I believe that the applicant has addressed concerns that WDC raise in its submission.

Submission 416: A Low

169 This submitter opposes PC31 on the basis of 5 key reasons. Mostly the reasons mirror those raised by Council so I will list them and point to my responses above and in the body of my evidence.

170 The 5 reasons are:

170.1 There is enough urban capacity to cater for growth;

170.2 PC31 will not contribute to lower house prices;

170.3 PC31 will require additional infrastructure reducing resources for elsewhere;

170.4 PC31 will reduce the range of housing choices available and is inconsistent with the large lot rural lifestyle currently provided at Ohoka; and

170.5 PC31 does not contribute to a well-functioning urban environment.

171 First, as outlined above, I believe there is insufficient capacity to cater for growth in Waimakariri. PC31 represents a suitably located, comprehensively planned and appropriate response to help address that.

172 The addition of supply into a market that is currently not providing sufficient capacity to cater for growth pressures will assist in bringing house prices down. Therefore, I reject the submitters claim it will do nothing for affordability.

173 In terms of infrastructure; yes, the development will require infrastructure. Assuming this has not been planned for, the current development contribution regime may not be adequate to fund the required new infrastructure. However, there are other mechanisms available to WDC to achieve that discussed above. This is therefore not an issue in my view.

174 I do not agree that PC31 will reduce the range of housing choices available. It is not clear how this would happen. While PC31 is different from the existing housing options at and around Ohoka, there are plenty of large lot and rural lifestyle options available.

175 The provision of between 850 and 892 new dwellings will only increase the range of options available to the market in this area.

176 Finally, with respect to a well-functioning Urban Environment, as I have described above, PC31 helps Waimakariri meet a number of objectives outlined in the NPS-UD.

177 The site is part of the GCP Urban area and given PC31 represents some 13% of projected capacity, I believe that it is significant both locally and at the district-wide level.

Submission 562: S Wells

178 This submitter opposes PC31 because it allows a significant amount of urban growth to occur in a rural village that does not have the infrastructure capacity, therefore it is not an appropriate way to manage growth in the district.

179 The submitter says that there is limited capacity in roads, local schools, water and stormwater and that there is no public transport.

180 I do not have knowledge specifically about the capacity of existing infrastructure, but this is covered by other witnesses. However, I do know (as outlined above), that there are ways for WDC to ensure that infrastructure is developed and funded by those that receive the benefits of that infrastructure through Development Agreements.

181 This would see no cross subsidisation by existing ratepayers and could potentially enhance existing infrastructure through the support of a large number of households, for example the provision of public transport. I do not believe that this should be used as a reason to decline PC31 given the benefits PC31 can provide.

182 I have addressed in detail in my evidence above, many of the points raised by other submitters. I have not read anything in the submissions that has caused me to alter my opinion or change my conclusions that PC31 is an appropriate way to address shortfalls in Waimakariri District's residential capacity, allowing future growth to be catered for in an economically efficient manner.

RESPONSE TO COUNCIL 42A REPORT

183 The economic assessment of proposed PC31 carried out in support of the Section 42a report, was prepared by Formative – who also prepared the HBA/HDCA for Waimakariri District under the NPS-UD.

184 In their findings section (4.4) the authors conclude that;

> *"Our independent assessment shows that PC31 as proposed will generate many economic costs which have not been adequately addressed in the application and that benefits are likely to be relatively small for Waimakariri community and greater Christchurch. While we agree that the development could add significantly to development capacity, it would not contribute to well functioning urban environment."*

185 However, Formative's view is based on a number of erroneous assumptions and some flawed assessment. In short, there are issues with the residential assessment, their assessment of commercial supply and issues with their assessment of the wider economic outcomes. I will address each area in turn.

Residential Assessment

186 As I have outlined above there are a number of errors, inconsistencies and potentially flawed assumptions applied by Formative in preparing both capacity and demand assessments for Waimakariri District.

187 On the demand side there are a few issues. It is not clear what the final projection numbers generated by Formative and used in their economic assessment are. In the second paragraph on Page 17 (section 4.1.2), Formative state:

> *"Formative's dwelling and household projects [sic] for Waimakariri suggest that there will be demand for a further 5,200 dwellings by 2033 and 12,600 dwellings by 2053 in the urban parts of the District if the population grows according to the high projection."*

188 However, in the following paragraph, Formative state:

> *"The NPSUD requires councils to plan for expected demand in the urban environment, plus a competitiveness margin of 20% in the coming decade. Applying this requirement suggests that there would be a need for at least 4,970 new dwellings by 2033….*
>
> *….In the coming long term there would be a need for at least 11,700 new dwellings by 2053,.."*

189 These figures are very different and I can't work out how they relate to each other. In practical terms adding a competitiveness margin of 20% should increase the demand figure by 20% - not reduce it by 4% in the medium term. Adding 15% to the long term should increase the long term figure by 15% not reduce it by 7%.

190 These numbers are also completely different from the figures published in the GCP HDCA 2023 assessment, which in Table 30, (pg 44) records urban GCP household demand projections in the medium term for Waimakariri to be 4,682 and long term 11,308 (Figure 16). When they add a margin they get 5,618 and 13,238 in the medium and long term respectively. None of these figures match the Formative assessment meaning there are very different assumptions being used by WDC and the GCP in 2023.

Figure 16: Formative Urban Projections vs GCP HDCA 2023 Projections

	Formative	GCP
Medium Term	5,200	4,682
Long Term	12,600	11,308
Medium + 20%	4,970	5,618
Long + 15%	11,700	13,238

191 It appears as though Formative do incorporate the effects of MDRS in their projections of capacity. Although they say that the MDRS provisions have the potential to increase plan enabled capacity "*to over 80,000, or almost three times the existing dwellings in the*

District."[19], they assess that total capacity in the medium term is 5,930 dwellings and 14,450 dwellings in the long term. The reductions are due to the vast majority of the MDRS being not commercially feasible or reasonably expected to be realised because of the lack of demand for higher density typologies.

192 As I have concluded above – and is demonstrated in **Mr Walsh's** evidence, Formative's capacity assessment overstates capacity in the medium and long term due to including areas unsuitable for residential development. The overstatement of capacity equates to between 1,290 and 1,620 dwellings under scenario 1 in the short to medium term and between 1,930 and 2,410 dwellings under scenario 2 in the short to medium term (Figure 1010).

193 These reductions mean that Waimakariri District is no longer meeting its obligations under the NPS-UD to provide sufficient capacity for growth. This means that the economic assessment Formative have carried out highlighting areas of adverse economic impacts as a result of the proposed PC31 are invalid.

194 At the conclusion Formative find that PC31 may have a small positive influence on competition in the market. They judge it to be small because they compare the 850 dwellings it facilitates with total Greater Christchurch capacity and find it equates to 1%.

195 This is not a valid comparison, as PC31 competes in a subset of the market made up of urban fringe, semi-rural locations. The comparison made makes no sense in this light as the vast majority of the Greater Christchurch capacity is not that typology – therefore is not within a comparable market.

196 Given that PC31 equates to 13% of total Waimakariri capacity means it is significant and it will have a similarly significant influence on competition in that market. This is especially the case given the shortfall in available capacity.

Price Outcomes and Affordability

197 Formative go on to discuss likely sales prices and affordability in section 4.1.6. They conclude that because the sales prices will be above the 'affordability' metric, that PC31 will have a potentially negative influence on housing affordability.

198 The development will increase supply of residential dwellings. Given that the market is competitive – in that there are limited barriers to entry and exit and prices are set in a free market manner – an increase in supply will shift the supply curve to the right meaning

[19] *Proposed Plan Change 31, Economic Review and Support*, Formative for WDC, 15 June 2023

that the market will clear at a lower price than before (*ceteris parabis*).

199 PC31 does not have to set its own prices to be lower than the "affordability" level in order for this to occur.

Wider Costs and Benefits

200 **Ms Natalie Hampson** addresses Formative's assessment of retail demand and commercial centre supply in section 4.2 of their Section 42a report. In this section, I address shortcomings in Formative's assessment of the Wider Costs and Benefits.

201 While they have modelled the loss of agricultural land as being an impact on Dairy sector output, whereas I have modelled cropping, the conclusions are broadly similar. That is, the loss of this relatively small amount of production is not zero but is small relative to total agricultural production of Waimakariri.

202 In assessing Infrastructure costs (4.3.2), Formative focus on whether the development contribution charges as currently set will generate sufficient income from PC31 to cover the costs associated with providing infrastructure to meet the needs of the development.

203 This is not a valid concern as WDC has a number of mechanisms available to them to collect sufficient fees to pay for all infrastructure required. If the development is unforeseen, WDC are able to enter into a Development Agreement[20] with the applicant that specifies all infrastructure that the developer (and WDC) will provide or pay for.

204 These can be drafted in such a way that the development will not receive any cross subsidy from rate payers. Therefore, this is not an issue.

205 In assessing the transport costs associated with the PC31 land, Formative are comparing the site with other locations of urban capacity where future residents of PC31 might otherwise have lived if PC31 was not approved. However, as I have shown above, I estimate that Waimakariri has a shortage of residential capacity in the medium and long term. This means that there is not a counterfactual scenario where the actual transport costs are lower than for PC31 as there may not be sufficient capacity adjoining the large urban townships in which these future households could live. Formative also point out that the PC31 land is not well located with respect to Public Transport (page 38). That is because currently, there are few houses in the area that would support public transport. This is not a valid reason to decline the application, as the public transport routes will adapt to the development pattern

[20] Under section 207 of the Local Government Act 2002

and require at least some critical mass to establish. See **Mr Milner's** evidence for further discussion on public transport.

206 Finally, Formative assess whether PC31 will contribute to a well-functioning urban environment (section 4.3.4). Based on their assessment they find that there are "*some aspects of the proposal* [that] *would not contribute to a well functioning urban environment*".

207 Formative identify four key reasons for this, including;

207.1 The land indicatively shown for commercial centres is too large and will result in negative impacts on the rest of the urban environment;

207.2 In terms of residential supply PC31 will have minimal impact on competition, prices and affordability;

207.3 There are wider costs which will impact, including cross subsidies for infrastructure, additional transport costs and loss of highly productive soils; and

207.4 The area is not close to commercial centres with poor public transport links and housing demand is low relative to the other main towns in the district.

208 As I have already discussed none of these reasons are valid or supported by the evidence.

209 **Ms Natalie Hampson**, in her evidence quantifies the impacts of the planned commercial centres and finds they are minor, not rising above trade competition effects. She also provides recommendations to control the scale of development within the proposed Business 4 Zones.

210 In my evidence I find that PC31 represents 13% of available capacity, which is significant – especially in the face of a medium and long term shortfall relative to demand. Without PC31, house prices in Waimakariri will be higher as supply fails to meet demand.

211 The wider costs identified are not valid as infrastructure costs can be captured through a development agreement, the potential rezoning of the land to Rural Lifestyle means the loss of any 'highly productive soils' is somewhat moot and additional transport costs are not proven, given PC31 fulfils a shortfall in capacity – rather than replaces existing capacity. The costs are only additional, if an alternative development capacity is closer. Given the distances are small to Rangiora and Kaiapoi, additional transport costs if present will be very minor.

212 Finally, PC31 is located well with respect to the main centres (a short drive from the centre of each). It has the potential to be well served by public transport – given the nature of the road layout (mostly straight and direct roads to Kaiapoi and Rangiora). Currently there is limited public transport because the area is rural and does not have the required critical mass. The public transport will follow the development.

213 Demand for housing in the area currently is driven by available housing opportunities. They are limited – therefore current demand in this exact location is limited. That does not and cannot mean that future demand will be the same once the residential development opportunities are present.

214 This is how new areas are built, as evidenced by areas such as Pegasus, which prior to being developed faced very little demand. Once the opportunity to build there was available, it became the fastest growing area in Waimakariri District.

215 Therefore, in my view Formative have failed to prove any of these adverse effects and cannot say that PC31 will not contribute to a well-functioning urban environment.

216 On the contrary, given the identified understatement of future growth, and over statement of existing capacity, PC31 fills an important gap in Waimakariri's ability to cater for growth in a manner that does not adversely impact housing affordability.

217 In doing so, in my view, PC31 contributes strongly to a well-functioning urban environment.

CONCLUSION

218 WDC has not identified sufficient commercially feasible and reasonably expected to be realised land to cater for anticipated growth. This is primarily due to issues with both the demand projections under-estimating likely growth in the urban environment and the capacity estimates including land unsuitable for residential development.

219 My evidence above clearly shows that proposed PC31 has the potential to address some of these shortfalls such that Waimakariri District will be able to meet its obligations under the NPS-UD, providing residential capacity to meet demand in the short to medium term as well as in the long term.

220 As a result, PC31 will generate a range of economic benefits in terms of contributions to GDP and wellbeing that are long term and sustainable. In addition, the opportunity costs in terms of lost

agricultural production are low and any retail and centre impacts are small and short lived.

221 On this basis I support the rezoning of the PC31 land to residential purposes.

Dated: 6 July 2023

Gregory Michael Akehurst

APPENDIX 1

Figure 17: Rangiora Residential Capacity Assessment – Inovo, Formative, 2023

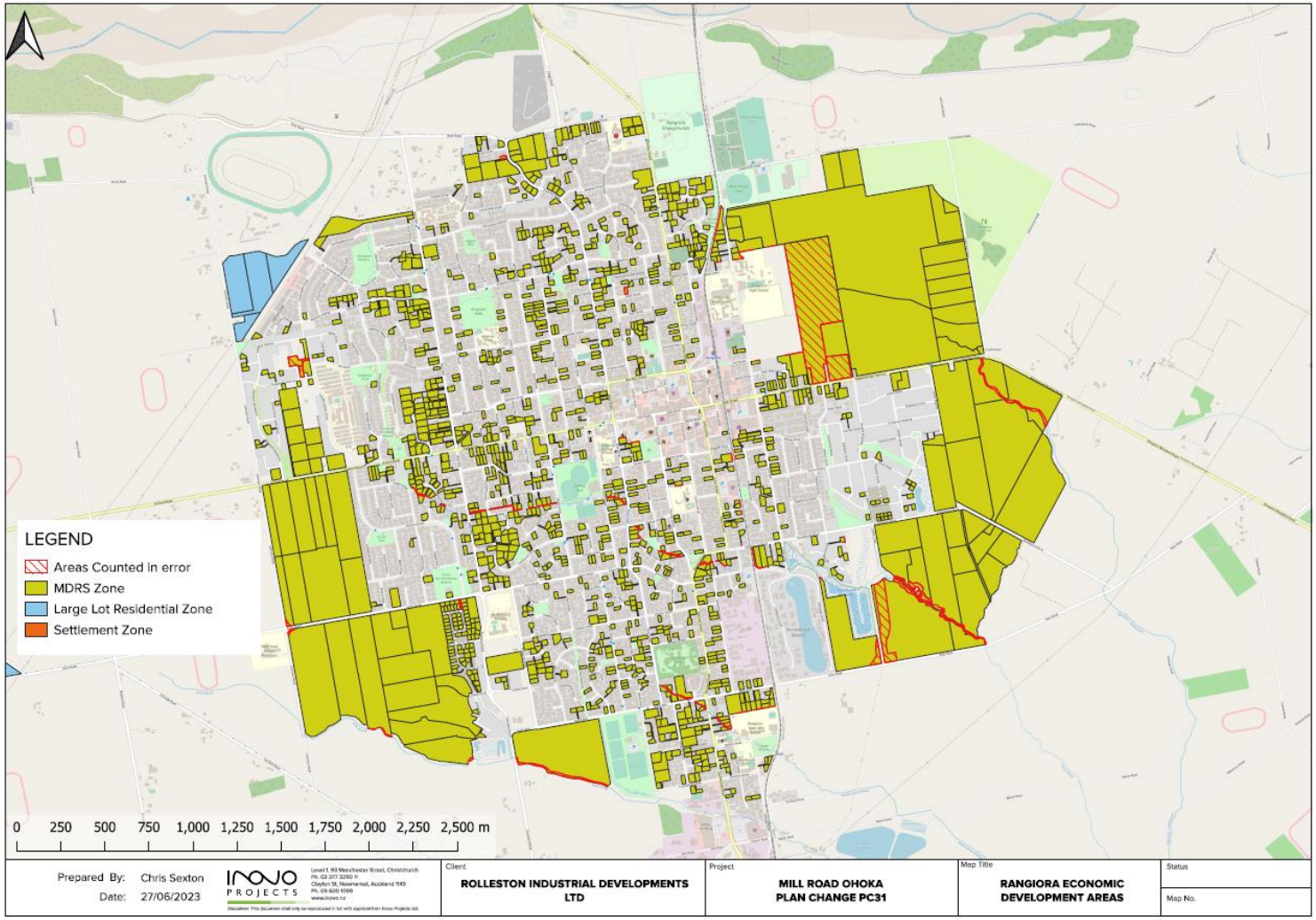


Figure 18: Kaiapoi Residential Capacity Assessment – Inovo, Formative 2023