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

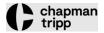
Evidence of Tim Walsh (Planning)

Dated: 7 July 2023

Reference: JM Appleyard (jo.appleyard@chapmantripp.com)

LMN Forrester (lucy.forrester@chapmantripp.com)





STATEMENT OF EVIDENCE OF TIMOTHY CARR WALSH

INTRODUCTION

- My full name is Timothy Carr Walsh. I am a resource management planner employed by Novo Group. Novo Group is a resource management planning, landscape architecture and traffic engineering consulting company that provides resource management related advice to private clients and local authorities.
- I hold a Bachelor of Science (Honours) degree and a Master of Science degree from the University of Canterbury. I am also an Associate member of the New Zealand Planning Institute.
- I have approximately 18 years of experience as a resource management planner, working in local and central government, and as a consultant. I have particular experience in urban land use development planning in Greater Christchurch, predominantly as a consultant to property owners, investors and developers.
- 4 Relevant to this matter I have experience in processing resource consent applications including preparing section 42A reports and attending resource consent hearings for district councils. As a consultant planner I have experience in evaluating development projects, preparing resource consent applications and plan change requests, and presenting evidence at council resource consent and plan change hearings and the Environment Court.
- I note that Novo Group has been involved in several recent plan changes in the Greater Christchurch area since the National Policy Statement for Urban Development came into force.
- I have experience in a wide range of resource management planning matters, with a particular focus on residential development. While employed at the Canterbury Earthquake Recovery Authority from 2013 to 2015, I led the development of the 'A Liveable City' residential chapter of the Christchurch Central Recovery Plan.
- I am familiar with the plan change application by Rolleston Industrial Developments Limited ('RIDL' or 'the Applicant') to rezone approximately 156 hectares of rural zoned land at Ōhoka to enable up to 850 residential sites, two small commercial zones, and provision for a school and retirement village.
- 8 I have visited the site and surrounding area on several occasions.

CODE OF CONDUCT

9 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

- My evidence is presented on behalf of Rolleston Industrial Developments Limited, the Applicant in these proceedings.
- In preparing my evidence I have reviewed the evidence of the following people, although I do not refer to every brief of evidence.
 - 11.1 Mr Gregory Akehurst economics;
 - 11.2 Ms Natalie Hampson commercial economics;
 - 11.3 Mr Gary Sellars medium density housing;
 - 11.4 Mr Chris Jones market demand;
 - 11.5 Mr Chris Sexton spatial analysis;
 - 11.6 Mr Chris Thompson geotechnical matters;
 - 11.7 Mr Mark Crooks land contamination;
 - 11.8 Ms Laura Drummond ecology;
 - 11.9 Mr Mark Taylor ecology;
 - 11.10 Mr Victor Mthamo versatile soils;
 - 11.11 Mr Timothy McLeod infrastructure;
 - 11.12 Mr Carl Steffens water supply;
 - 11.13 Mr Eoghan O'Neil stormwater;
 - 11.14 Mr Ben Throssell flooding;
 - 11.15 Mr Nicholas Fuller transport;
 - 11.16 Mr Simon Milner public transport
 - 11.17 Mr Paul Farrelly greenhouse gas emissions;

- 11.18 Mr Garth Falconer urban design;
- 11.19 Ms Nicole Lauenstein urban design;
- 11.20 Mr David Compton-Moen landscape;
- 11.21 Mr Tony Milne landscape;
- 11.22 Dr Gabrielle Wall education provision;
- 11.23 Ms Barbara Warren Ōhoka Farmers Market; and
- 11.24 Mr Charlie Wood polo.
- 12 I have also considered:
 - 12.1 The section 42A Report prepared by Council ('the Officer's Report'); and
 - 12.2 Other statutory documents as listed in my evidence, including the National Policy Statement on Urban Development 2020 ('NPS-UD'), the Canterbury Regional Policy Statement ('CRPS'), and non-statutory documents including Our Space 2018-2048: Greater Christchurch Settlement Pattern ('Our Space'), Waimakariri 2048 District Development Strategy ('District Development Strategy') and the June 2023 consultation draft of the Greater Christchurch Spatial Plan ('draft GC Spatial Plan').
- Before assessing the specifics of the Plan Change 31 ('PC31' or 'the plan change proposal' or 'the proposal'), my evidence provides analysis that has been developed following the close of the submission period. The analysis considers the supply and demand situation within the Greater Christchurch area of the Waimakariri District. It also provides a spatial planning assessment to identify the preferred locations for residential growth.
- 14 Following this analysis, my evidence is structured in the same order as the Officer's Report, covering:
 - 14.1 The proposal and site description;
 - 14.2 Assessment of issues, including those raised by submitters and in the Officer's Report;
 - 14.3 Statutory analysis, including relevant statutory documents; and
 - 14.4 Consideration of alternatives, costs and benefits.

- 15 For the sake of brevity, this evidence attempts to minimise repetition of the Officer's Report and instead focus on points of difference. Accordingly, if a matter is not specifically dealt with in this evidence, it can be assumed that there is no dispute with the position set out in the Officer's Report.
- Noting that the Operative Waimakariri District Plan ('District Plan') is in the process of being replaced, I refer to provisions of the Proposed Waimakariri District Plan ('Proposed Plan') where it is relevant and appropriate to do so. While these provisions are subject to hearings and decisions, the provisions reflect the Waimakariri District Council's current position, and therefore relevantly inform analysis of the matters discussed in this evidence.

SUMMARY

- To provide sufficient development capacity to accommodate predicted housing growth in the district, the Waimakariri District Council has identified New Development Areas on the outskirts of Rangiora and Kaiapoi with the assumption that they will accommodate between 5,000 and 7,000 new dwellings. Analysis undertaken to inform this evidence indicates that the capacity of the New Development Areas is most likely to deliver between 3,200 and 4,400 dwellings, which is 1,800 to 2,600 fewer dwellings than assumed. This significant development capacity shortfall means there is not enough land available to provide for housing demand. Further, a possible underestimation of demand may exacerbate the problem.
- 18 Because large scale intensification in the Waimakariri context is not likely given the clear lack of demand for higher density housing, additional land needs to be identified to solve the development capacity problem.
- Demand for housing is focused in the east of the district where various development constraints have been identified. Accounting for the constraints, there are few alternatives available, including expansion of existing centres. Of the less constrained land, North Mandeville intensification and northwest Rangiora expansion are possibilities, but are highly unlikely to deliver the required capacity. Conversely, the plan change site in Ōhoka is readily available and would make a substantial contribution to reducing the shortfall. It stands out as a suitable candidate for rezoning given it provides a large contiguous area of land that can be developed comprehensively and in a timely manner.
- While PC31 is not anticipated by the planning documents, the NPS-UD enables consideration of its merits because it provides significant development capacity, contributes to well-functioning urban

- environment, and enables development that is well-connected along transport corridors.
- 21 On the merits, I consider the proposal is appropriate because:
 - 21.1 The plan change site has low exposure to natural hazards. While it is at some risk of flooding (less so than many other areas), modelling has determined that minimal mitigation is required to ensure that development of the site does not worsen flooding beyond the site.
 - 21.2 The potential costs associated with the loss of productive land are outweighed by benefits of providing development capacity.
 - 21.3 The distance of Ōhoka from coastal areas and the ability to manage flooding risk contribute to the resilience of PC31 to impacts of climate change.
 - 21.4 The proposal supports reductions in greenhouse gas emissions due to the removal of dairying from the land and the Applicant is taking practical steps in the design of development to support a reduction in emissions arising from the development and occupation of dwellings and commercial buildings, and emissions arising from transport.
 - 21.5 The plan change site can be serviced with all the necessary infrastructure.
 - 21.6 The proposal provides local convenience for the local population. The commercial offering is likely to be anchored by a supermarket and would also be expected to accommodate a small mix of food and beverage retail, commercial services, and potentially health care facilities and a preschool.
 - 21.7 The proposal will lead to an improvement to waterway ecology which is a matter of importance to Te Ngāi Tūāhuriri Rūnanga.
 - 21.8 The proposal provides good connectivity and accessibility at the local scale, and acceptable levels beyond.
 - 21.9 Maintains the rural village character while providing a compact and consolidated urban form.
- I consider that the proposal will give effect to the NPS-UD and give effect to the CRPS and achieve consistency with the District Plan (except for those directive provisions regarding urban growth which are resolved by Policy 8 of the NPS-UD).

Overall, I consider that the proposal is the most appropriate way of achieving the purpose of the Resource Management Act 1991 ('**the Act**'), and that the purpose of the Act is achieved.

RESIDENTIAL SUPPLY AND DEMAND SITUATION

- The Greater Christchurch Partnership prepared an updated housing development capacity assessment for the sub-region (as identified on Map A of the CRPS) in March 2023. The assessment indicates that the population of Christchurch City, Selwyn and Waimakariri districts could increase by 32% to 708,840 people in 2052 at a rate of approximately 5,700 people annually. This translates to an additional 79,220 households. It is expected that the Greater Christchurch sub-region will accommodate 85% of the projected growth with Waimakariri District absorbing a 17% share of that growth.
- The assessment identifies a surplus of 54,450 dwellings for the Greater Christchurch sub-region over the next 30 years mostly due to large infill capacity within Christchurch. Despite this, demand for standalone dwellings remains high at 84%, and I note that Mr Akehurst considers that proportion may be higher in reality. While there is a substantial surplus of dwellings predicted in Christchurch, Selwyn District has a capacity shortfall and Waimakariri District has a narrow surplus of only 1,250 dwellings in the long term (350 in the short to medium term). Based on the 2023 Greater Christchurch Housing Development Capacity Assessment ('HDCA'), Mr Akehurst considers that:

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, then demand will potentially shift to Waimakariri, increasing pressure on the limited headroom in capacity there¹.

In his advice to Council, Mr Yeoman reports that demand for standalone dwellings remains strong in the Waimakariri District, representing over 90% of new dwelling building consents. He considers demand could shift towards medium density typologies as the district grows, but concedes that demand for standalone dwellings will remain high. Mr Sellars considers it is unlikely there would be a shift in demand towards medium density typologies in the foreseeable future and that any increase in demand would be negligible. Mr Jones supports this opinion based on his sales experience in the district. Intuitively, it makes sense that demand for higher density housing would be low in the district. Higher density living is considerably more attractive in major metropolitan

¹ Evidence of Greg Akehurst, paragraph 33.

- centres. The district is attractive to people who seek lower density living.
- Using Statistics New Zealand high growth projections for the district, the number of households would increase by 15,850 in the long term (2052) which Mr Akehurst identifies as higher than Formative's most recent household projections adopted by Council. The Formative projections predict the number of dwellings will increase by 13,041 over the next 30 years. Mr Akehurst considers that the difference is likely accounted for by the average household size used to develop the projections. Unlike the Statistics New Zealand predictions, the average household size is not reduced to account for an aging population and reducing fertility in the Formative projections.
- Objective UFD-01 of the Proposed Plan requires sufficient feasible development capacity for 6,300 dwellings in the short to medium term (2018-2028) and 7,100 in the long term (2028-2048), which equates to 13,400 over the 30-year period. Mr Akehurst is concerned that unrealistic modelling assumptions in the HDCA may have led to an underestimation of demand for standalone dwellings. For this reason, the Proposed Plan bottom lines may not be sufficient to meet demand.
- 29 In terms of housing intensification required by the NPS-UD and Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021, Mr Yeoman considers that development capacity within Greater Christchurch could be more than three times the current dwelling stock within the sub-region. In respect of the Waimakariri District, a recent Formative assessment estimates plan enabled capacity for residential development could increase to over 80,000 dwellings². However, Mr Yeoman considers that it is unlikely that this theoretical capacity would be realised due to a lack of demand for medium density typologies and feasibility challenges in respect of redevelopment. He estimates that the medium term feasible development capacity for the district is for 5,930 dwellings and approximately 14,450 dwellings in the long term. I note that this represents a shortfall in the medium term in respect of the Proposed Plan targets, and a surplus in the long term.
- 30 Based on analysis provided at **Attachment A** and the evidence of Mr Akehurst, I consider the that the development capacity assumptions relied on in the Officer's Report considerably overestimate feasible development capacity for the district.
- While there is some capacity within existing residential zoned land, the key component of the feasible development capacity estimates for the district are the Future Development Areas ('FDAs') as

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² See evidence of Rodney Yeoman.

identified in Map A of the CRPS. Within the district, these provide for 450 hectares of future urban expansion east and west of Rangiora (345 hectares) and west of Kaiapoi (105 hectares)³. These areas are reflected in the Proposed Plan and referred to as New Development Areas ('**NDAs**'). Council has assumed that the proposed NDAs will provide between 5,000 and 7,000 new dwellings, based on a total developable area of approximately 450 hectares and minimum net densities of approximately 12 households per hectare ('**hh/ha**') (5400 dwellings) to 15 hh/ha (6750 dwellings).

- 32 Using the Council GIS, the NDAs measure 455.19 hectares (346.6 hectares for Rangiora and 108.89 hectares for Kaiapoi), slightly larger than stated in the CRPS.
- In calculating the area of land available for residential development, the CRPS definition of 'net density' excludes land that is:
 - required for stormwater retention and treatment,
 - geotechnically constrained (including land subject to inundation),
 - set aside to protect significant ecological, cultural, historic heritage or landscape values,
 - set aside for esplanade reserves or access strips that form part of larger regional or sub-regional reserve network, and
 - for local community services and retail facilities, or for schools, hospitals or other district, regional or sub-regional facilities.
- Accounting for the above (except in respect of geotechnical constraints), the area of the NDAs available to accommodate residential development is 347.47 hectares 107.72 hectares less than the total area of the NDAs. This area of land would accommodate up to 4,170 dwellings at 12 hh/ha and 5,212 at 15 hh/ha, which is 1,230 and 1,538 fewer dwellings (respectively) compared to a developable area of 455.19 hectares.
- The above figures do not consider land excluded that may be 'geotechnically constrained'. A significant area of the Kaiapoi NDA is geotechnically constrained due to risk of inundation. Approximately 60.6 hectares of the land is within a 'high hazard area' as defined in the CRPS given that it is subject to "inundation events where the water depth (metres) x velocity (metres per second) is greater than or equal to 1, or where depths are greater than 1 metre, in a 0.2% AEP flood event".

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³ Section 32 evaluation of Change 1 to Chapter 6 of the CRPS.

- 36 While the constraint may be able to be removed with flood mitigation, Policy 11.3.1 of the CRPS presents a significant barrier given it seeks avoidance of "new subdivision, use and development of land in high hazard areas, unless the subdivision, use or development:
 - 1. is not likely to result in loss of life or serious injuries in the event of a natural hazard occurrence; and
 - 2. is not likely to suffer significant damage or loss in the event of a natural hazard occurrence; and
 - 3. is not likely to require new or upgraded hazard mitigation works to mitigate or avoid the natural hazard; and
 - 4. is not likely to exacerbate the effects of the natural hazard; or
 - 5. Outside of greater Christchurch, is proposed to be located in an area zoned or identified in a district plan for urban residential, industrial or commercial use, at the date of notification of the CRPS, in which case the effects of the natural hazard must be mitigated; or
 - 6. Within greater Christchurch, is proposed to be located in an area zoned in a district plan for urban residential, industrial or commercial use, or identified as a "Greenfield Priority Area" on Map A of Chapter 6, both at the date the Land Use Recovery Plan was notified in the Gazette, in which the effect of the natural hazard must be avoided or appropriately mitigated; or
 - 7. Within greater Christchurch, relates to the maintenance and/or upgrading of existing critical or significance infrastructure".
- I am uncertain whether developing the Kaiapoi NDA would likely result in the loss of life/serious injuries or significant damage/loss in the event of a natural hazard occurrence. It is possible this could be avoided by way of new and/or upgraded flood mitigation works. However, the required hazard mitigation works would mean that proposed development of the Kaiapoi New Development Area would not meet the first limb of the Policy 11.3.1 exemption listed at 1-4 above. Further, it seems likely that flood mitigation works would exacerbate the effects of the natural hazard elsewhere through floodwater displacement.
- The second limb of the exemption (see 5 above) is not relevant to Kaiapoi given it is located *within* Greater Christchurch. The third limb (see 6 above) is not relevant to the Future Development Areas

as it only provides for development proposed on land already zoned for urban residential, industrial or commercial use, or existing Greenfield Priority Areas.

As introduced by Change 1 to Chapter 6 of the CRPS, Policy 6.3.12 seeks to "enable urban development in the Future Development Areas identified on Map A, in the following circumstances:

...

- 6. The effects of natural hazards are avoided or appropriately mitigated in accordance with the objectives and policies set out in Chapter 11".
- 40 New subdivision, development and use within the area of the NDA subject to the high hazard is to be avoided in accordance with Policy 11.3.1 and therefore not provided for via Policy 6.3.12. In my view, development of the entire Kaiapoi NDA would only be possible if the CPRS was changed to remove this policy barrier.
- I note that the notified version of the Proposed Plan does not present the same policy barrier as the CRPS. Policy NH-P2 of the Proposed Plan relates to activities in high hazard flooding areas within urban areas and seeks to:

Manage subdivision, use and development for natural hazard sensitive activities within high flood hazard and high coastal flood hazard urban environments to ensure that:

- 1. minimum floor levels are incorporated into the design of development to ensure the risk to life and potential for building damage from flooding is mitigated; and
- 2. the risk to surrounding properties is not significantly increased and the net flood storage capacity is not reduced; and
- 3. the conveyance of flood waters is not impeded; or
- 4. the nature of the activity means the risk to life and potential for building damage from flooding is low.
- In my view, Policy NH-P2 does not give effect to CRPS Policy 11.3.1. While this is not a matter for consideration in deciding this plan change request, I note that the s42A report for the Proposed Plan Natural Hazards Chapter (which incidentally has the same author as for PC31) recommends the following change to Policy NH-P2:

<u>Avoid or mitigate adverse effects arising from Manage</u> subdivision, use and development for natural hazard sensitive activities within high flood hazard and high coastal flood hazard urban environments to ensure that

- I consider that the recommended change better aligns the Proposed Plan to the CRPS.
- Accounting for the high hazard area within the Kaiapoi NDA, the developable area of the NDAs in the district would be 294.44 hectares 160.75 hectares less than the total area of the NDAs. This area of land would accommodate up to 3,533 dwellings at 12 hh/ha and 4,4417 at 15 hh/ha, which is 1,867 and 2,333 fewer dwellings (respectively) compared to a developable area of 455.19 hectares.
- There is also uncertainty as to what effect the remodelled air noise contours might have on development capacity within the Kaiapoi NDA. As required by the CRPS, the airport noise contours were remodelled by Christchurch International Airport Limited and subsequently peer reviewed by an independent Expert Panel appointed by Canterbury Regional Council. The Expert Panel confirmed the remodelled contours in a final report released on 5 July 2023. If development beneath the remodelled contour was precluded, I note that only 5.08 hectares of the NDA is outside the air noise contour overlay in a location that could provide residential development capacity.

Supply/Demand Analysis Summary

- 46 Residential growth projections produced by Formative may underestimate demand for new dwellings in the district demand that will be predominantly for standalone dwellings.
- In terms of supply, I consider Council's assumption that the proposed NDAs will provide between 5,000 and 7,000 new dwellings is incorrect. In my view, the capacity delivered by the NDAs is most likely to deliver between 3,200 and 4,400 dwellings. This is because the developable area of the NDAs is no more than 294.44 hectares, which is significantly lower than the total area of 455.19 hectares. If development was to be precluded beneath the remodelled airport noise contour, the developable area of the NDAs may be as low as 270 hectares which would equate to 2697 fewer dwellings than the 6750 envisaged by council based on 15hh/ha.

PLANNING FOR RESIDENTIAL GROWTH

48 Policy 2 of the NPS-UD requires that tier 1, 2, and 3 local authorities:

at all times, provide at least sufficient development capacity to meet expected demand for housing and for business land over the short term, medium term, and long term.

- The analysis in the previous section of this evidence identifies a shortfall of development capacity. On this basis, Council must identify additional areas for residential growth. Consistent with good planning practice, the following spatial planning analysis considers constraints to guide the identification of areas of the district that may be suitable to accommodate growth. I note a similar approach was applied in developing the 2019 Waimakariri Rural Residential Development Strategy and the same approach is currently being used by the Greater Christchurch Partnership with its draft GC Spatial Plan.
- The analysis also considers the statutory framework which provides direction for the identification of future growth areas. I note that the analysis only considers the area of the district within the Greater Christchurch boundary.

Constraints

Maps of constraints affecting the district are included at **Attachment B**. The constraints mapping is generally consistent with that in Part 1 (Areas to protect, avoid and enhance) of the draft GC Spatial Plan. The constraints considered include susceptibility to liquefaction, coastal inundation, tsunami, flooding, productive soils, sites and areas of significance to Māori, noise generating activities, and reserves. Each of these constraints are discussed below.

Susceptibility to liquefaction

- The CRPS through Objective 11.2.1 seeks to avoid new subdivision, use and development of land that increases risk of natural hazards to people, property and infrastructure or mitigate the risk where avoidance is not possible.
- At face value, this objective suggests that new subdivision, use and development should be avoided in areas where damage from liquefaction is possible. However, the policies associated with this objective take a more nuanced approach. The CRPS is most concerned about new subdivision, use and development in high hazard areas (as defined below). Areas susceptible to liquefaction are not included in the high hazard areas. Instead, Policy 11.3.3 seeks that new subdivision, use and development in areas susceptible to liquefaction be *managed* to avoid or mitigate adverse effects. A similar approach is taken in the Proposed District Plan whereby subdivision is managed in respect of liquefaction to ensure that the risk to life and property is low. The Operative District Plan simply seeks to increase Council and community understanding of the hazard by identifying areas which are at risk from liquefaction.

"High hazard areas" are:

- 1. flood hazard areas subject to inundation events where the water depth (metres) x velocity (metres per second) is greater than or equal to 1, or where depths are greater than 1 metre, in a 0.2% AEP flood event;
- 2. land outside of greater Christchurch subject to coastal erosion over the next 100 years;
- 3. land within greater Christchurch likely to be subject to coastal erosion including the cumulative effects of sea level rise over the next 100 This includes (but is not limited to) the land located within Hazard Zones 1 and 2 shown on Maps in Appendix 5 of this Regional Policy Statement that have been determined in accordance with Appendix 6; and
- 4. land subject to sea water inundation (excluding tsunami) over the next 100 years. This includes (but is not limited to) the land located within the sea water inundation zone boundary shown on Maps in Appendix 5 of this Regional Policy Statement.

When determining high hazard areas, projections on the effects of climate change will be taken into account.

- Despite the current direction in the relevant statutory documents, a first principles approach to urban planning and the requirements in section 32 of the Act would suggest that new development ought to be avoided in areas where damage from liquefaction is possible (as indicated on the liquefaction constraint map in **Attachment B**) unless:
 - there is a compelling strategic reason for locating new development in that area,
 - there are no viable alternatives,
 - the cost of mitigating damage to buildings and infrastructure are not prohibitively high, and
 - the potential benefits of developing the land outweigh the potential disruption and cost associated with recovery in the aftermath of a significant seismic event⁴.
- 55 Liquefaction resulting from the 2010/11 Canterbury earthquakes severely impacted buildings, infrastructure, people and communities

⁴ I note that these matters generally reflect the requirements in s32 of the Act.

in extensive areas of Greater Christchurch. As stated in the CRPS, most of the damage to houses and infrastructure during the Canterbury earthquake was caused by ground damage due to liquefaction (and lateral spreading), rather than ground shaking. Based on that experience, I consider that exposure to this hazard would ideally be avoided or significantly limited.

Coastal hazards

Coastal Erosion and Sea Water Inundation

The CRPS addresses these hazards via Policy 11.3.1 (avoidance of inappropriate development in high hazard areas) and includes the following explanation:

Coastal erosion is a major issue in parts of Canterbury. New development such as residential, commercial and industrial activity is not sustainable in areas subject to erosion over the next 100 years. Sea water inundation has occurred, and will continue to occur, in many coastal areas of Canterbury. Sea water inundation can occur due to a number of different factors, including coastal erosion and storm-surge. Many activities are not sustainable in these areas and should be avoided.

57 The Proposed District Plan identifies a Coastal Flood Assessment Overlay within which Policy NH-P16 encourages redevelopment or land use changes that reduce the risk of adverse effects including managed retreat and designing for relocation or recoverability from natural hazard events. Further urbanisation within areas affected by these hazards ought to be discouraged, particularly given climate change induced sea level rise will only exacerbate the potential impacts.

Tsunami

- Tsunamis do not occur often but can have severe impacts. The CRPS notes that tsunamis have affected the Canterbury coastline in 1868, 1877, 1960 and 2010.
- As per the liquefaction susceptibility discussion above, the CRPS seeks to avoid new subdivision, use and development of land that increases risk of natural hazards to people, property and infrastructure or mitigate the risk where avoidance is not possible as directed by Objective 11.2.1.
- While land subject to sea water inundation is included in the high hazard area definition, tsunami is excluded. Further, unlike earthquakes, flooding, coastal erosion and sea water inundation, there is no specific policy direction for tsunami hazard. Instead, it is captured by Policy 11.3.5 which provides a risk management approach for natural hazards not specifically addressed. That policy

seeks that subdivision, use or development of land be avoided if the risk from the hazard is unacceptable. While the CRPS states that the likelihood of tsunami is not high enough to warrant avoidance of further development in affected areas, the policy directs Council to adopt a precautionary approach. I consider that a precautionary approach is becoming increasingly important in light of predicted climate change induced sea level rise which will exacerbate the impact of tsunamis.

Flooding

- The CRPS addresses flood hazard using a two-tiered approach. The first tier relates to high hazard areas where new subdivision, use and development in these areas is to be avoided unless it meets the criteria listed at paragraph 36.
- The second tier of flood hazard avoidance in the CRPS relates to areas subject to inundation by a 0.5% AEP flood event (accounting for climate change projections) where new subdivision, use and development is to be avoided unless there is no increased risk to life, and the subdivision, use or development:
 - 1. is of a type that is not likely to suffer material damage in an inundation event; or
 - 2. is ancillary or incidental to the main development; or
 - 3. meets all of the following criteria:
 - a. new buildings have an appropriate floor level above the 0.5% AEP design flood level; andhazardous substances will not be inundated during a 0.5% AEP flood event;
 - b. provided that a higher standard of management of inundation hazard events may be adopted where local catchment conditions warrant (as determined by a cost/benefit assessment).
- At the district level, Waimakariri District Council has identified areas it considers are subject to flood hazard and categorised them by high, medium and low risk. In accordance with the CRPS, the Proposed Plan generally seeks to avoid development in the high risk areas (as indicated in red on the flood hazard constraint map in **Attachment B**), noting that allowance is made for development within urban areas that meet certain criteria. Outside those areas (i.e. in the medium and low risk categories), the Proposed Plan provides for development where:

- 1. the nature of the activity means the risk to life and potential for building damage from flooding is low; or
- 2. minimum floor levels are incorporated into the design of development to ensure building floor levels are located above the flood level so that the risk to life and potential for building damage from flooding is avoided; and
- 3. the risk from flooding to surrounding properties is not significantly increased and the net flood storage capacity is not reduced; and
- 4. the ability for the conveyancing of flood waters is not impeded.
- An extensive area of the district is at risk of flooding. Mr Throssell considers that satisfying the above criteria is most often readily achievable in the low risk areas, but more difficult to satisfy within the medium risk areas. This is particularly the case in respect of large-scale development where required mitigation would likely significantly reduce the developable area. On this basis, uncertainty exists in respect of development in the medium risk areas (as indicated in blue on the flood hazard constraint map).

Productive soils

As indicated on the soil resource constraint map in **Attachment B**, a significant area of the district has Land Use Category 1, 2 and 3 soils. The National Policy Statement on Highly Productive Land ('NPS-HPL') applies to those soils within rural zoned land, excluding the Proposed Plan Rural Lifestyle Zone (this is discussed in more detail at paragraph 118). The objective of the NPS is that:

Highly productive land is protected for use in land-based primary production, both now and for future generations.

- Policy 5 seeks that urban rezoning of HPL is avoided except in relation to proposals that satisfy the stringent criteria set out at Clause 3.6. On this basis, all HPL (as defined by the NPS-HPL) is shown as a constraint for future urbanisation.
- Outside the area subject to the NPS-HPL, the constraint map also includes Land Use Category 1 and 2 soils given the CRPS identifies these as versatile. These soils support the widest range of productive uses with the least inputs and are afforded protection by way of Policy 4.1.1.6 of the District Plan.

Sites and areas of significance to Māori

The Kāinga Nohoanga Special Purpose Zone adjoining Woodend and sites/areas of significance to Māori are included on the relevant constraints map in **Attachment B**. While these do not preclude development, they create uncertainty and potential development barriers in respect of large-scale urbanisation.

Kāinga Nohoanga Special Purpose Zone

- The Kāinga Nohoanga Special Purpose Zone occupies a large area between Rangiora, Woodend and Kaiapoi and its purpose is to provide for activities within Māori Reserve 873. It enables the development of Māori⁵ land for a wide range of activities. Rural and residential land uses are provided for in respect of non-Māori land. The density of residential development depends on the location with the highest density directed towards the Tuahiwi Precinct, rural residential development in the Large Lot Residential Precinct, and rural lifestyle density (four hectare minimum) outside the precincts. Further, a range of small-scale commercial activities are also provided for on non-Māori land within the Tuahiwi Precinct.
- 70 The purpose of the Kāinga Nohoanga Zone, and land ownership within it, create potential development barriers and uncertainty for larger scale urban development.

Sites and areas of significance to Māori

71 The Proposed Plan identifies sites and areas of cultural significance to Ngāi Tūāhuriri grouped into the following:

wāhi tapu and wāhi taonga – are treasured places that include wāhi tapu, which are sites and places that are held in reverence due to their significance according to whakapapa (including urupā, pā, maunga tapu, kāinga, and tūranga waka). In addition to wāhi tapu, other places are treasured due to their high intrinsic values or their capacity to sustain the quality of life and provide for the needs of present and future generations (including areas important to support ecosystems and sites related to food gathering and cultural resources);

⁵ Under the Proposed Plan Māori land means land:

a. that has been gazetted or determined by an order of the Māori Land Court as having a particular land status as defined or provided for within Te Ture Whenua Maori Act 1993, which may apply to any form of ownership that is recognised or provided for under Te Ture Whenua Maori Act 1993; or

b. where one or more owners of the land provide written confirmation from Te Runanga o Ngāi Tahu Whakapapa Unit that they are a direct descendant of the original grantees of the land.

ngā tūranga tūpuna – larger extents of land within which there is a concentration of wāhi tapu or taonga values, or which are of particular importance in relation to Ngāi Tūāhuriri cultural traditions, history or identity; and

ngā wai – is water and represents the essence of all life, is integral to tribal identity, and source of mahinga kai.

72 Subdivision within the Wāhi Tapu, Wāhi Taonga, Ngā Tūranga Tūpuna and Ngā Wai overlays is a restricted discretionary activity (with legal effect) in the Proposed Plan with Council's discretion limited to protection of sites/areas of significance to Ngāi Tūāhuriri and mitigation of effects on wāhi taonga. The appropriateness of larger scale urban development would depend on the location and specifics of the proposed development. Therefore, prior to site specific consultation with Ngāi Tūāhuriri, these planning overlays create a level of uncertainty for larger scale urban development.

Noise generating activities

Aircraft Noise

73 The CRPS requires that strategic infrastructure (including the Christchurch International Airport) is not compromised by urban growth and intensification. In respect of aircraft noise, Policy 6.3.5 seeks the avoidance of:

noise sensitive activities within the 50dBA Ldn airport noise contour for Christchurch International Airport, unless the activity is within an existing residentially zoned urban area, residential greenfield area identified for Kaiapoi, or residential greenfield priority area identified in Map A

- As mentioned previously, the airport noise contours have been remodelled and confirmed, with the peer review report released on 5 July 2023. The updated Outer Envelope noise contour is included on the relevant constraints map in **Attachment B**.
- 75 In addition to the Christchurch International Airport noise contour, the constraints map also includes the Rangiora Airfield noise contour given that Policy NOISE-P5 of the Proposed Plan seeks to:

Avoid the development of noise sensitive activities in the Rural Lifestyle Zone within the 55dBA Ldn Noise Contour for Rangiora Airfield and prohibit noise sensitive activities within the 65 dBA Ldn Noise Contour for Rangiora Airfield.

Motorsport Noise

76 In relation to the Woodford Glen Speedway at 39 Doubledays Road, the Proposed Plan includes a noise contour within which residential

activity is a non-complying activity. For this reason, this noise contour is also included on the relevant constraints map.

Reserves

- 77 The Proposed Plan includes three different types of open space and recreation zones as follows:
 - Natural Open Space Zone;
 - Open Space Zone; and
 - Sport and Active Recreation Zone.
- As per the description in the Proposed Plan, these zones are almost entirely comprised of public land to provide for open space and recreation areas to benefit the health and well-being of the people and communities of the district. Much of the proposed open space zoned land will be held under the Reserves Act 1977 and managed/preserved according to its purpose. Proposed open space zoned land and/or reserves are not typically available for development. Further, it would not be appropriate in most instances to develop this land. For these reasons, proposed open space zoned land is included as a constraint on development.
- 79 Utility reserves are also included as a constraint because they are not typically available for development.

Combined constraints map

- The final map in **Attachment B** and below at **Figure 1** overlays all of the constraints discussed above. The constraints layers have been sourced from the following:
 - Eastern Canterbury Liquefaction Susceptibility Study (2012):
 Areas identified where the risk of possible damage from liquefaction.
 - Waimakariri District Council Flood Hazard Modelling: all 1:200year flood events medium and high flood hazard.
 - Canterbury Tsunami Evacuation Zones published by the Canterbury Regional Council: yellow, orange and red zones.
 - Land Use Category 1, 2 and 3 soils within rural zoned land, excluding the Proposed Plan Rural Lifestyle Zone, as per the NPS-HPL. Land Use Category 1 and 2 soils elsewhere in recognition that these are versatile soils as defined in the CRPS.
 - Proposed Plan:

- o Special Purpose Zone Kainga Nohoanga
- Natural Open Space Zone
- o Open Space Zone
- o Sport and Active Recreation Zone
- o Sites and Areas of Significance to Māori

- Noise Contours:

- o Proposed Plan Speedway Noise Avoidance Contour
- o Proposed Plan Rangiora Airport Noise Avoidance Contour
- CIAL combined 50dBA noise contour published May 2023 and digitised from the Marshall Day report.

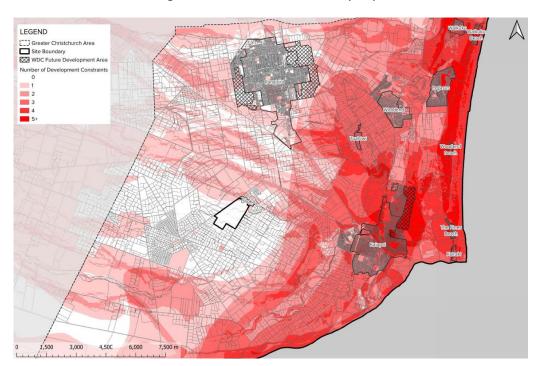


Figure 1: Combined constraints map

- Care has been taken to ensure there is no 'double counting' of constraints. For example, given the flood modelling carried out by Council includes coastal inundation, this was not included in the combined constraints.
- Overlays of the future development areas are sourced from the Proposed Plan.

83 All base information except the Christchurch International Airport noise contour has been sourced from Council and Regional Council open-source GIS databases and processed using QGIS to determine overlaps between multiple constraint layers.

Other

Greenbelt

While not included on the constraint maps, I note that the draft GC Spatial Plan includes a greenbelt to the west of Rangiora⁶. The green belt concept is described in the plan as providing for "a large, connected area of natural environment spaces and to limit urban expansion".

Land fragmentation and ownership

- Highly fragmented land, particularly in different ownership can impose significant constraints on land development due to several factors including (but not limited to):
 - 85.1 Smaller parcel sizes, which can limit the feasibility and efficiency of development projects.
 - 85.2 Multiple owners, who will likely have different plans, priorities, or timeframes for land development, or no plans for development.
 - 85.3 Disruption to connectivity within and beyond development projects. Disjointed parcels can hinder the establishment of coherent transportation networks, utility systems, and other infrastructure.
 - 85.4 Increased costs. Fragmented land will often require negotiations and coordination among multiple landowners to assemble contiguous parcels for larger-scale development. These transactions can be time-consuming, complex, and costly, involving planning and legal advice and surveying.

Opportunities

86 Following consideration of constraints, it is then necessary to identify and consider existing features within less constrained areas of that would support urbanisation. In this respect, areas that are already serviced with physical and social infrastructure, proximate to centres of employment and well-connected along transport corridors are more have an advantage. It is also important that potential development land is resilient to impacts of climate change.

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⁶ See Map 14 on page 79.

Statutory Directions

- 87 Several statutory documents provide direction as to where new or expanded urban area should be located. At the top of the hierarchy, Policy 1 of the NPS-UD requires planning decisions contribute to well-functioning urban environments that:
 - a) have or enable a variety of homes that:
 - (i) meet the needs, in terms of type, price, and location, of different households; and
 - (ii) enable Māori to express their cultural traditions and norms; and
 - b) have or enable a variety of sites that are suitable for different business sectors in terms of location and site size; and
 - 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) support reductions in greenhouse gas emissions; and
 - f) are resilient to the likely current and future effects of climate change.
- 88 Several of these matters are relevant in respect of the *location* of urban development. Also relevant, is the ability to service an area with the necessary horizontal infrastructure as reflected in the NPS-UD and CRPS.
- The CRPS is directive in terms of where urban development can be located within Greater Christchurch specifying that it only occur within existing urban areas or identified greenfield priority areas as shown on Map A, and in Future Development Areas subject to certain circumstances (policies 6.3.1 and 6.3.12). It also directs that intensification should be focused around central Christchurch, Key Activity Centres and neighbourhood centres (Policy 6.3.7).
- The District Plan gives effect to the CRPS, except in relation to the recently introduced Future Development Area, as does the Proposed Plan.

- Attachment B and the draft GC Spatial Plan, further expansion of existing urban areas of the district is restricted. While some of the identified constraints are potentially 'negotiable' (to use the term used in the draft GC Spatial Plan), others are far more difficult and/or prohibitively costly to overcome. The least constrained area of the district, which is in the general vicinity of Ōhoka and Mandeville, is not an area anticipated for new urban development or expansion. Therefore, locating urban development in this area would require the support of the NPS-UD.
- 92 Policy 8 and Clause 3.8 of the NPS-UD provides for the consideration of proposals that are unanticipated. Council must be responsive to, and have particular regard to the development capacity provided by, plan change proposals not anticipated by the CRPS and district plans but that:
 - provide significant development capacity,
 - contribute to well-functioning urban environments, and
 - enable development that is well-connected along transport corridors.
- A full analysis of the NPS-UD in respect of the plan change proposal is included in the Statutory Analysis section.

Discussion

- Where there is a need to provide sufficient development capacity, the first preference would be to identify locations attached to existing larger centres in the east of the district. However, I note that any proposed new development areas would be contrary to Policy 6.3.1 of the CRPS given they would be located outside existing urban areas, identified greenfield priority areas as shown on Map A, and Future Development Areas.
- The supply/demand analysis in the previous section identifies a significant development capacity shortfall in the district. In this context, it is likely that several new development areas will need to be identified to meet Council's obligations under the NPS-UD. Providing sufficient development capacity adjoining the larger centres is likely to be challenging given the constraints on development identified above. Further, there is a risk that identifying new development areas in such locations would lead to poor outcomes such as exacerbated housing affordability issues, increased exposure to natural hazards, and increased vulnerability to the impacts of climate change. In my view, consideration ought to be given to locating urban development in areas of the district (within the Greater Christchurch boundary) that are less

- constrained, subject to the ability to service potential development land with the necessary infrastructure.
- Of land that is less constrained, Mandeville North arguably stands out, at least at first glance, as a potential candidate for urbanisation. North Mandeville is an area of very low density housing centred around a small local centre⁷. The District Plan recognises that further expansion of this area is undesirable and seeks that it be contained as directed by Objective 18.1.3 and Policy 18.1.3.1. I consider that significantly intensifying and/or expanding North Mandeville would not be feasible, principally because of the high level of land fragmentation. Further, a large reserve extending between Mandeville Road and North Eyre Road prevents development of less fragmented land to the southeast of Leyland Crescent and Truro Close. Regardless of feasibly considerations, creating a well-functioning urban settlement within the confines of North Mandeville would be significantly challenging.
- 97 In contrast to North Mandeville, the plan change site provides a large contiguous area of land that can be developed comprehensively and in a timely manner. In respect of Policy 8 and Clause 3.8 of the NPS-UD, the plan change site can provide significant development capacity, contribute to well-functioning urban environments, and would enable development that is well-connected along transport corridors. The land could also be serviced with the necessary infrastructure. These matters are addressed in the Statutory Analysis section as they relate to the plan change request.
- An area of land to the northwest of Rangiora is also identified as relatively unconstrained (see the combined constraints map). However, the land is fragmented (albeit not to the same extent as North Mandeville) and has been identified as a greenbelt area in the draft GC Spatial Plan to restrict further urban expansion in that direction as shown in **Figure 2**.

CAPACITY PROBLEMS AND SOLUTIONS SUMMARY

The previous demand/supply analysis identifies a problem: there is a significant shortfall in development capacity within the district. Because large scale intensification in the Waimakariri context is not likely given the lack of demand (and re-development feasibility challenges), additional land needs to be identified to solve the development capacity problem.

⁷ See page 4 of the Reset Design Report appended to the evidence of Garth Falconer.

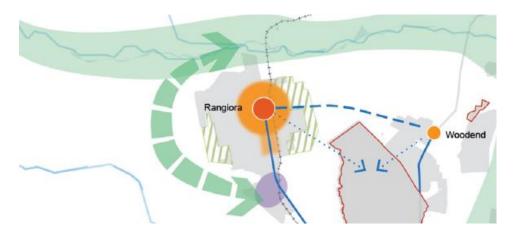


Figure 2: Enlargement of Rangiora - Map 2 draft GC Spatial Plan

Demand for housing is focused in the east of the district where various development constraints have been identified. Accounting for the constraints, there are few alternatives available, including expansion of existing centres. Of the less constrained land, North Mandeville intensification and northwest Rangiora expansion are possibilities, but are highly unlikely to deliver the required capacity. Conversely, the plan change site in Ōhoka is readily available and would make a substantial contribution to reducing the shortfall.

THE PROPOSAL AND SITE DESCRIPTION

Site and Surrounding Environment

101 A description of the site and surrounding environment is provided in the Officer's Report⁸. I concur with that description except to note that the Millwood Weddings venue at 401 Whites Road is no longer operating.

Description of the Proposal

- 102 A full description of the proposal is provided in the RIDL plan change request and is summarised in the Officer's Report.
- In response to matters raised in submissions and in the Officer's Report, amendments are proposed as set out in **Attachment C**. All of the recommended amendments listed in Appendix 1 of the Officer's Report are reflected in the proposed amendments, as well as several other amendments in response to concerns raised by submitters and RIDL's advisers. The following is a summary of the proposed amendments:
 - 103.1 The proposed Residential 3 Zone changed to Residential 2. There is very little difference between the two zones in terms of District Plan rules, and while it causes a temporary

⁸ See Officer's Report paragraphs 5.1.1-5.1.4.

inconsistency between the existing Residential 3 Zone at Ōhoka and the plan change site, it will be resolved via the Proposed Plan. RIDL has sought General Residential for the plan change site via its submission on the Proposed Plan. It has also sought that the proposed Settlement Zone (equivalent to the existing Residential 3) at Ōhoka be changed to General Residential. An updated zone map is included at **Attachment D**.

- 103.2 Removal of the originally proposed Residential 8 Zone. The subject land is now proposed to be Residential 2 with an overlay providing for educational facilities. Provision is made for educational facilities within the overlay as a restricted discretionary activity (originally controlled) subject to compliance with 'buildings and structures' conditions.
- 103.3 In conjunction with the above is the removal of the 12-metre height limit proposed to apply to Residential 8 Zone sites greater than 6,000m² and the proposed 45% site coverage. The height and site coverage will be as per the Residential 2 Zone, 8 metres and 35% respectively.
- 103.4 Removal of the 500m² minimum allotment size for the Residential 3 Zone (now Residential 2). The minimum allotment size now aligns with the 600m² minimum in the District Plan.
- 103.5 Provision for the establishment of a polo field and associated facilities within an overlay in the Residential 2 Zone as a restricted discretionary activity subject to compliance with 'buildings and structures' conditions.
- 103.6 Provision for a retirement village within the Residential 2 Zone (outside the overlays) as a restricted discretionary activity (currently controlled).
- 103.7 Removal of the proposed exemption that would allow roads within the plan change area to be non-compliant with the District Plan road standards. A discretionary resource consent will be required at subdivision stage to authorise the bespoke roads proposed for the plan change.
- 103.8 An additional rule requiring minimum floor levels to avoid flooding.
- 103.9 A cap of 2,700m² gross floor area of retail activities is proposed to apply to the Business 4 zones within the plan change area. This will limit retail distribution effects on the North Mandeville centre. A discretionary resource consent would be required to exceed the cap. The originally

- proposed business zone policy for Ōhoka has been amended to ensure any retail distribution effects on the North Mandeville centre are appropriately considered.
- 103.10 The plan change provides for the hosting of the Ōhoka farmers market during the winter when ground conditions are not suitable at the Domain. The retail cap would not apply to the Ōhoka farmer's market.
- 103.11 The addition of measures to support the reduction of greenhouse gas ('GHG') emissions. These include a District Plan requirement for additional planting on allotments over 2,500m² and a requirement that provision is made for electric vehicle charging within all residential properties. The latter requirement is expressed in the amended Outline Development Plan ('ODP') text to be enforced via a developer covenant (or consent notice).
- 103.12 A requirement for the preparation, and the approval of Council, of development controls and design guidelines specific to the development area. The guidelines will ensure that development is of the quality and character required to maintain the rural village character of Ōhoka. An independent design approval process will be established and most likely administered by a professional residents' association which would appoint an architect and landscape architect to review and approval proposals.
- 103.13 The insertion of a proposed rule requiring compliance with the abovementioned development controls and design guidelines (to be developed at subdivision stage). The independent design approval process will be used to demonstrate compliance with this proposed rule.
- 103.14 The addition of a rule requiring any fencing within the Residential 2 Zone to be in accordance with the abovementioned design guidelines. The originally proposed rule has interpretation challenges. More fundamentally though, I am not confident it would result in the rural village aesthetic sought. The proposal rule will ensure minimal and appropriate fencing.
- 103.15 A prohibition of the keeping of cats within the plan change area. This is expressed in the amend ODP text and would be enforced via a developer covenant.
- 103.16 Larger waterway setbacks as expressed in the amended ODP text.

- 103.17 A new restricted discretionary activity rule requiring an assessment of whether upgrades are required to maintain the safety and efficiency of the State Highway 1 / Tram Road interchange where more than 250 allotments are proposed within the plan change area.
- 103.18 A revised ODP (included at **Attachment E**) reflecting the proposed changes including the recommendations in the Officer's Report.

SUBMISSIONS

104 A total of 648 submissions and eight further submissions were received on the Request. I broadly agree with the Officer's identification of key matters raised in these submissions warranting consideration and the rationale for a topic-based approach to evaluating these submissions. I address these same matters in my evidence below.

ASSESSMENT OF ISSUES RAISED BY SUBMITTERS AND IN THE OFFICER'S REPORT

- 105 For ease of reference, my evidence adopts the same sub-headings set out in the Officer's Report.
- 106 Matters where I fully agree with the Officer are addressed first, followed by a discussion of matters where I partially agree and where I elaborate on specific issues raised by the Officer and/or provide relevant clarification. The evidence then focuses on matters where my opinion differs from the Officer and/or requires more extensive attention.

Matters in Full Agreement

- 107 I agree with the Officer's assessment of the following matters, for the reasons stated in their report and otherwise noting the equivalent conclusions in the Request:
 - 107.1 land contamination⁹ (further addressed in the evidence of Mr Crooks),
 - 107.2 geotechnical matters¹⁰ (further addressed in the evidence of Mr Thompson),
 - 107.3 other non-transport infrastructure¹¹, and

⁹ See Officer's Report paragraphs 6.5.12-6.5.15.

¹⁰ See Officer's Report paragraphs 6.5.16 and 6.5.17.

¹¹ See Officer's Report paragraphs 6.7.1-6.7.5

- 107.4 terrestrial and aquatic impacts¹² (further addressed in the evidence of Mr Taylor and Ms Drummond).
- In relation to aquatic ecology impacts, I note that RIDL has accepted the recommendation in the Officer's Report for more generous waterway setbacks based on the evidence of Mr Taylor and Ms Drummond. Further, in response to the concerns of numerous submitters, the proposal has been amended to preclude the keeping of cats. This affords another level of ecological protection.

Matters in Partial Agreement Requiring Further Comment

I partially agree with the Officer's assessment of the following matters and provide further assessment that I consider to be relevant as follows:

Natural hazards - flooding

- 110 I agree with the Officer's assessment that the original proposal did not adequately demonstrate that off-site flood risk can be appropriately managed. The Officer's Report invited further evidence on this matter which has been provided by Mr Throssell.
- 111 Mr Throssell developed a model to understand the potential flooding effects of the proposed plan change. The model was updated in response to concerns raised in submissions.
- 112 The modelling has identified conveyance of floodwater in significant events and recommends that "development is minimised in areas where the existing conveyance of floodwaters is significant". In respect of the impacts beyond the site, Mr Throssell finds that no existing buildings and habitable dwellings would experience an increased depth of flooding greater than 20mm in a 200-year event (except two non-habitable buildings where the depth would increase by 24-28mm). While modelling would be required at subdivision stage to ensure this, Mr Throssell is confident it is achievable through considered subdivision design.
- Overall, I consider that Mr Throssell's assessment demonstrates that the plan change proposal meets the flooding related matters in Policy 18.1.1.9 of the District Plan, specifically, it:
 - avoids significant flood hazards, and
 - ensures that any residential development occurring in the Ōhoka settlement does not increase the flood risk within Ōhoka and adjoining areas.

¹² See Officer's Report paragraphs 6.10.1 and 6.10.7

Commercial distribution

- 114 Based on the evidence of Mr Yeoman, the Officer's Report recommends that retail floor space within the proposed Business 4 Zone is limited to 2,700m² above which a retail distribution effects assessment would be required. The Officer also considers that proposed Policy 16.1.1.2 should specifically seek to ensure that the nearby Mandeville and Kaiapoi centres are not undermined by the proposal. I note that the Officer expresses uncertainty in reaching these conclusions.
- Having considered the retail distribution effects evidence of Ms Hampson, I agree that the proposal has the potential to impact the North Mandeville Business 4 Zone, but not Kaiapoi. The applicant agrees to the recommended retail activity floor space limitation. Further, a third matter has been added to proposed Policy 16.1.1.12 (which provides for retail and business activities in the Ōhoka Business 4 Zone) to limit retail distribution effects on the nearby Business 4 Zone at Mandeville North. I consider that Ms Hampson's evidence and the proposed policy and rule changes adequately address the concerns of the Mandeville Village Limited Partnership (submitter 551).
- 116 Ms Hampson also recommends that the smaller of the two proposed Business 4 zones on adjacent Mill Road be downgraded to a Neighbourhood Centre. I agree with this recommendation and consider this can be implemented via the Proposed Plan. Under the Operative Plan, the Business 4 Zone is the lowest order commercial zoning.

Matters Requiring Further Assessment

117 For the matters below, my opinion (as informed by the evidence referred to in paragraph 11 above) differs from the Officer and I elaborate on the reasoning below.

Loss of productive farmland

118 First, and most importantly, I do not agree that there is any uncertainty with respect to the application of the NPS-HPL. In my view, the NPS-HPL does not apply to the request as per the reasons set out at in the legal opinion by Chapman Tripp at **Attachment F**. Put simply, at the commencement of the NPS-HPL on 17 October 2022, the plan change site was subject to a Council initiated notified plan change (via the Proposed Plan) to rezone it to rural lifestyle and therefore the land is not highly productive land ('**HPL**') for the purposes of the NPS-HPL. Further, I note Council's recent advice to the Proposed Plan Hearings Panel on 30 June 2023 concurs with the Chapman Tripp opinion.

- While the NPS-HPL does not apply to the plan change site, other statutory policy documents seek protection of productive rural land, particularly versatile soils. I agree with the Officer's assessment that the current use of the site is viable for primary production activities, while acknowledging the constraints identified in Mr Mthamo's evidence. However, in assessing the loss of productive rural land, the Officer's Report, and the experts it relies on, do not recognise that the land could be subdivided as a controlled activity into four-hectare allotments (see the indicative rural lifestyle subdivision plan attached to Mr Milne's evidence).
- Indeed, I understand that should the plan change request be declined, subdivision for rural lifestyle use is the most likely outcome for the site. The high demand for rural lifestyle properties in the area (see the evidence of Mr Jones) has elevated the value of the site to a level where rural lifestyle represents the highest and best use. This is further exacerbated by the application of the NPS-HPL in respect of rurally zoned land beyond the Rural Lifestyle Zone. The NPS-HPL severely restricts further subdivision of rural land meaning that demand for rural lifestyle properties will be met almost exclusively within the Rural Lifestyle Zone.
- Rural lifestyle subdivision of the site would significantly reduce the current productive value of the site. The 2018 Waimakariri District Rural Character Assessment states that activity on four-hectare rural lifestyle blocks "is typically focused on rural residential use with the balance land simply maintained as ancillary or used for small scale primary production"¹³. Further, I note a relevant excerpt from a 2018 MacFarlane Rural Business assessment referenced in the abovementioned 30 June memo to the Proposed Plan Hearings Panel which says:

there are very few agricultural or horticultural farming practises that would justify a farming business of 4ha (with the exception of very intensive vegetable production or glasshouse operations), even if they are operated to the highest level. The reality is that most properties under 10ha have been purchased for lifestyle purposes and the majority of the household income is derived off farm. Furthermore, once the house and amenities are deducted from the total area, the effective farming area on a 4ha property could be as low as 2ha. Whilst in theory a group of 4ha properties could be operated in conjunction to achieve scale, this is unlikely to be successful given owners will often have differing priorities and the fact that the small paddock sizes will limit operational efficiency.

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¹³ The 2018 Boffa Miskell Waimakariri District – Rural Character Assessment, page 2.

- 122 In my view, subdivision of the land into four-hectare lots would not only reduce its rural productive value, it would represent a lost opportunity to deliver required development capacity via a comprehensive and sympathetically designed expansion of the existing Ōhoka settlement.
- 123 I note the Officer's Report states the following at paragraph 6.5.8:

In regards to the NPS-HPL, Mr Ford notes that should it apply to the site, he considers that this site does not meet the clause 3.10 exemption requirements, i.e. it cannot be shown that there are permanent or long term constraints on the land that mean the use of the highly productive land or land-based primary production is not able to be economically viable for at least 30 years.

- I reiterate that the NPS-HPL does not apply to the land. If it did, Clause 3.10 is not the correct test. As per Ministry for the Environment ('MfE') guide to implementation of the NPS-HPL, Clause 3.10 applies in rare circumstances where "HPL is subject to permanent or long-term constraints that mean the use of land for land-based primary production is not economically viable for at least 30 years". It says that "Clause 3.10 cannot be used as a pathway for urban rezoning if a proposal has not met the requirements of Clause 3.6".
- 125 While not applicable, I consider the NPS-HPL provides some useful high level guidance in respect of the proposed rezoning. Clause 3.6 allows for the consideration of rezoning HPL if:
 - a) the urban rezoning is required to provide sufficient development capacity to meet demand for housing or business land to give effect to the National Policy Statement on Urban Development 2020
 - 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 highly productive land for land-based primary production, taking into account both tangible and intangible values.
- In relation to first condition, I consider that the proposal is clearly required to address the development capacity shortfall identified in this evidence.

- To meet the second condition, consideration must be given to reasonably practical options including: greater intensification in existing urban areas; rezoning of land that is not HPL; and rezoning different HPL that has a relatively lower productive capacity. In respect of this criteria, the evidence of Messrs Jones, Akehurst and Yeoman establishes that there is little demand for the level of intensification that would be required to address the shortfall. In other words, this option is not feasible. The remainder of the criteria is of little relevance because, aside from the fact that the land is not HPL, the large majority of the land is of the lowest order (Land Use Category 3).
- 128 The MfE guidance says that the third condition is intended to "ensure a more robust assessment of benefits and costs across the four wellbeings". Further, the "consideration should go beyond the economic value of transitioning from rural to urban use. Intangible values of HPL that should be considered as part of this assessment include:
 - its value to future generations
 - its finite characteristics and limited supply
 - its ability to support community resilience
 - the limited ability of other land to produce certain products"
- The evidence of Mr Akehurst demonstrates that the economic benefits of the proposal far outweigh the costs relating to the loss of primary production (and I note my previous evidence in respect of rural lifestyle subdivision). This leaves the assessment of social, environmental and cultural costs/benefits, examples of which are discussed in the s32 report of the NPS-HPL, particularly within Appendix C. The Appendix C examples are reproduced below, each followed with a discussion relating to the proposal.

Societal benefits

Sustaining communities

Primary production activities, particularly in some larger food production hubs such as Pukekohe, contribute significantly to the social fabric of rural communities as support and community services establish around concentrations of land-based primary production activities. Primary producers, such as from the horticultural industry, have contributed to intergenerational employment in some communities, which has resulted in long-term support of social activities in the community, such as fundraising, support for local sports teams and support for local events. A critical benefit of

retaining HPL (particularly in larger concentrations near established rural communities) therefore, is that rural communities stay cohesive, supported and socially stable due to secure employment opportunities in the primary production sector.

130 It is unlikely that the current primary production activities within the site contribute to the social fabric of the Ōhoka community. The community is mainly comprised people who live on rural lifestyle and rural residential properties and are not reliant on the land or primary production for their livelihood. While the proposal will have an impact on status quo amenity values, removal of the primary productive use would not, in my opinion, have any significant impact in terms of social cohesion and stability.

Community identity

Both individuals and groups in society can have a deep connection to the land and derive social value from it. HPL can contribute to a sense of belonging and place. This sense of identity is intimately connected with the events and history of the land including its past use. In some cases, HPL has been farmed by multiple generations of the same family – such families have strong ties to that land. The produce from HPL can also help shape a community's identity. Anecdotal information suggests communities take pride in living in an area that is well known for particular produce. Some communities have chosen to celebrate this with annual harvest festivals, regular farmers' markets and even erecting large novelty statues including a kiwifruit in Te Puke, various fruits in Cromwell and a carrot in Ohakune.

- 131 Changing the use of the subject land would have an impact on individuals who gain a sense of belonging from it. The extent of the impact would vary from one individual to the next and is therefore difficult to assess. However, it is relevant to note that the identity of places change through history in response to various factors.
- Ōhoka developed from the mid-1800's grew from its origins as a milling settlement connected some 25 years later by rail. As noted in Reset Design Report appended to Mr Falconer's evidence, "by the late 1800's Ōhoka had expanded significantly, with the school boasting over 200 pupils [and] was a flourishing village on the Kaiapoi-Bennett's railway line". The report suggests a decline from the 1950's with a "shift away from local milling, and populations migrating towards the city. Further development was largely stalled". A small community remained providing the nucleus for the rural residential/lifestyle growth which has occurred since the 1990's while maintaining a village character.

As demonstrated in the evidence of Mr Falconer and Ms Lauenstein, Ōhoka will retain its rural village character within the addition of the development anticipated by PC31. Further, I would anticipate that the popularity of the Ōhoka Farmers Market, a strong part of the identity of Ōhoka, would only increase because of the proposal.

Social value of landscape

While not all people in a community near HPL directly use the resource, HPL is often valued in the sense that it forms part of the landscape that people live in. Landscape is a combination of the physical environment (eq, the soil, vegetation) and how that environment is perceived. People value the landscape in which they live for what they can do in that landscape (eg, recreation or employment opportunities) and for how that landscape makes them feel (eg, aesthetic appreciation, spiritual connection with the land, intergenerational ties). Research has demonstrated that selfidentity and group-identity are intimately connected with the events and history associated with tangible elements of the landscapes in which people live. Culture and identity are therefore not just about social relationships but are also about the spatial areas that people feel like they belong to. Retaining HPL land for land-based primary production will therefore have a positive benefit for people who gain meaning and identity from living in a rural area used for land-based primary production.

134 Mr Milne has assessed the proposal from a landscape perspective and found that while the proposal would result in landscape change, it "does not necessarily mean that the resulting level of visual amenity will be lower than at present. Instead, the resulting visual amenity will be from a combination of existing and new elements" 14. Mr Milne finds that proposal is "appropriate and will not result in significant adverse landscape or visual amenity effects that cannot be either avoided or mitigated" 15. On this basis, I consider that the removal of the productive land will have minimal impact in terms of landscape values.

Meeting societal expectations around food

A degree of inter-regional food supply will always be needed in New Zealand due to certain crops performing better in different regions. However, there is a growing desire from consumers for locally grown food. Many vegetables are grown on HPL close to large urban centres, which satisfies the consumer demand for local produce. Retaining HPL in

¹⁴ Evidence of Tony Milne, paragraph 84.

¹⁵ Evidence of Tony Milne, paragraph.86.

strategic locations near major urban centres has the benefit of providing the consumer with the knowledge that their produce has come from a local source and is therefore in the freshest condition with a small carbon footprint.

Future food security

One of the key benefits of retaining HPL is the knowledge that future generations will be able to grow food to feed themselves and others. The obligation that society feels to preserve finite resources for future generations applies to HPL and aligns with the purpose of the RMA to manage finite resources sustainably for long-term benefits. There are societal benefits to be gained from taking steps to preserve our food-producing ability and gifting a legacy of sustainable food production to the next generation.

The proposal would result in the cessation of milk production on the site. Given the prevalence of dairying in New Zealand, this will not have any significant impact milk supply within the region and beyond. Horticulture is another viable primary productive use of the site (noting the advice of McFarlane Rural Business at **Attachment G**). However, this use is not economically viable given the low return on capital. I also note Mr Mthamo's evidence which identifies the loss of the versatile soils as representing a reduction of 0.0002% within Canterbury and 0.0016% within the district.

Environmental benefits

Direct and indirect ecological services

While the primary purpose of HPL used for land-based primary production is to generate produce and a subsequent income, retaining HPL for productive purposes enables this land to provide a number of direct and indirect ecological functions. This includes water purification/ filtration, water storage for plants to use and flood regulation, habitat for many different creatures (supporting biodiversity), nutrient cycling and climate regulation through carbon sequestration. This contrasts with converting HPL to an urban use where most of these ecological functions are effectively lost.

The ecological benefits of the proposal are identified by Ms
Drummond and Mr Taylor. Ms Drummond considers the proposal
could result in net ecological benefits to aquatic ecological values.
With appropriate landscape treatment (as proposed) Ms Drummond
considers there is potential for the site to contain "highly naturalised
and enhanced watercourse corridors [including the] opportunity to
link Ōhoka Stream to the Ōhoka Bush, downstream of Whites Road,
to increase in the length of the Ōhoka Stream ecological corridor

and improve not only instream conditions, but overall biodiversity values in the area"¹⁶. This improvement is also assisted by the removal of dairying.

An efficient use of a finite resource

Utilising HPL to the best of its ability for land-based primary production is an efficient way to use a finite resource. Land classified as LUC 1–2 land has a higher ability to sustain agricultural production, given its enhanced natural attributes such as soil and rock type, climate, and reduced potential for erosion. This means HPL can produce food more efficiently than other types of land, allowing growers to grow more on less land. This is positive from an environmental perspective as HPL needs less intervention to be used for efficient and effective land-based primary production.

I note that only 2.45% of the site contains versatile soils. Further, Mr Mthamo identifies several constraints that affect the productive capacity of the site including poor soil drainage, moisture limits and irrigation availability, nutrient limits, characteristics of soils, and the drinking water protection zone.

Cultural benefits

Māori have had a long history and a close interdependent relationship with the natural environment, particularly soil resources. Feedback provided by various iwi through consultation on the proposed NPS-HPL confirmed that land and soil resources are a precious taonga for Māori as tangata whenua.

- While tangata whenua value high value soil resources generally, this land is not identified as having any special significance except in relation to the Ōhoka Stream which is identified as a 'ngā wai' site of cultural significance to Ngāi Tūāhuriri in the Proposed Plan. If approved, the plan change would protect and enhance Ōhoka Stream and all the other waterways within the site. On this basis, and in reference to the Mahaanui Kurataiao consultation report on the plan change request, I anticipate that the proposal would result in cultural benefits.
- On balance, I consider the benefits of the proposal likely outweigh the costs accounting for both tangible and intangible values in accordance with Clause 3.6 of the NPS-HPL.
- 140 As set out at the beginning of this assessment, the NPS-HPL does not apply to the site. Therefore, moving beyond the confines of the

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¹⁶ Evidence of Laura Drummond, paragraph 9.

Clause 3.6 assessment, it is my view that when the benefits to the district of providing required development capacity are considered, the costs associated with the of loss of productive land are clearly outweighed by the benefits.

Loss of productive land conclusion

- 141 I consider that the above assessment demonstrates that the benefits of rezoning the site for urban residential use outweigh the costs relating to the loss of productive land. Importantly, the primary productive value of the site would be diminished even if the plan change was refused given the highest and best use of the land anticipated by the operative and proposed district plans is for rural lifestyle purposes.
- 142 While I consider that the plan change proposal is inconsistent with the objectives of the CRPS and district plans that seek protection of rural productive land, I do not agree with the Officer's Report that it is contrary to them. I discuss this further at paragraphs 244 to 248 in the statutory assessment section of this evidence.

Three Waters Infrastructure

143 The Officer's Report considers that there is uncertainty with respect to the provision of three waters infrastructure and invites evidence from the RIDL witnesses to address the concerns raised. In recognition of these concerns and those of the submitters, a substantial body of evidence is provided to address uncertainty. This includes the evidence of Mr McLeod who assesses the overall infrastructure requirements with supporting evidence from Mr Steffens (potable water) and Mr O'Neil (stormwater and wastewater).

Potable water

The main concern raised in the Officer's Report in respect of potable water is that the required volume may not be able to be provided without unacceptable levels of drawdown. Mr Roxburgh, for Council, would not support the plan change application until physical tests confirm quantity and quality of water is available. This matter is addressed in the evidence of Mr Steffens who considers that there is a "high likelihood that a deep groundwater community supply can be provided to the site" Noting that most existing bores in the area are shallow, Mr Steffens suggests that existing deep bores "have greater amounts of available drawdown and are therefore, less sensitive to drawdown interference effects" Noverall, Mr Steffens considers it is viable to provide a community water supply utilising four deep bores without unduly impacting existing water

 $^{^{\}rm 17}$ Evidence of Carl Steffens, paragraph, 85.

¹⁸ Evidence of Carl Steffens, paragraph 79

takes in the area. Further, he notes that groundwater overallocation in the area is not a significant concern because there is a clear pathway in the LWRP for consenting of groundwater for community supply even when allocation volumes are exceeded.

145 In the unlikely scenario that the identified supply solution is insufficient, Mr Steffens identifies two alternative options for a water supply including:

"Utilising the existing shallow irrigation bores. While ideally a new deeper source would be provided, the existing bores are also a viable option. While the quality of groundwater from shallow bores is likely to be lower than a deep source, this issue can likely be managed such that relevant drinking water criteria can still be met. The main disadvantage is that a higher level of treatment and monitoring would likely be required. Given the proposed rates and volumes of take are less than the existing consented quantities, drawdown interference effects will not be a concern.

An offsite source could also be provided to the site with high certainty. An example of this is the Rangiora water supply, which utilises the deep high-yielding confined aquifer source in Kaiapoi. Therefore, if in the unlikely event that no on-site source of supply water was suitable, consideration could be given to off-site sources" 19.

Wastewater

- The Officer, relying on Mr Roxburgh for Council, is satisfied that there are viable options for servicing the plan change site with wastewater infrastructure, noting that any technical challenges will be able to be overcome. Mr McLeod agrees that there are viable solutions for wastewater servicing and discusses an amendment to the proposal that involves the construction of a new dedicated rising main for conveyance of wastewater to the Rangiora Wastewater Treatment Plant. The new main addresses previous concerns raised by Council that connection to the existing main along Bradleys Road may be problematic.
- 147 I note Mr Roxburgh's comment that the required wastewater system may be expensive. This is irrelevant given that it would be at the developers cost.

Stormwater

148 Mr Throssell's flooding evidence considers significant flooding events and notes that the stormwater solution within the plan change site will provide mitigation for higher frequency lower magnitude events.

¹⁹ Evidence of Carl Steffens, paragraph 85.

Mr O'Neill addresses stormwater and finds that runoff up to the 1% AEP (100-yr ARI) can be managed within the site via dedicated flow paths connecting upstream and downstream catchments alongside the use of basins, compensatory storage, and rain tanks. Several stormwater quality treatment options have also been identified. Importantly, Mr O'Neill is confident that there is a viable solution for stormwater attenuation that does not involve a consumptive groundwater take, thus avoiding consenting issues with respect to Plan Change 7 to the Canterbury Land and Water Regional Plan.

149 Accounting for the evidence of RIDL's infrastructure related experts, I consider there is a high degree of certainty that the proposed plan change site can be serviced with three waters infrastructure. Detailed design matters will be appropriately addressed at subdivision stage.

Transport

150 Several transport related matters are in contention including connectivity, network effects, private motor vehicle dependence, GHG emissions, active transport and associated infrastructure, and public transport. In forming a view on these matters, the Officer has relied on the advice of Messrs Binder (traffic engineer) and Nicholson (landscape architect and urban design) as well has having regard to submissions. In responding to the Officer's Report, I rely on the evidence of Mr Fuller (traffic engineer), Mr Milner (passenger transport), Mr Falconer and Ms Lauenstein (urban design), Dr Wall (education) and Mr Farrelly (GHG emissions).

Internal road layout

- 151 Mr Fuller and Mr Binder agree that the internal road network is appropriate. In response to the Officer and Mr Binder's concern regarding a departure from Council road standards without adequate assessment, the proposal has been amended so that a discretionary resource consent (at subdivision stage) will be required to authorise the proposed bespoke road concepts.
- 152 Further, the proposal has been revised in respect of the Whites and Bradleys Road frontage treatment to include shared paths within the site and crossings linking to Ōhoka Bush and the main commercial area. These changes respond to a recommendation from Mr Nicholson.

Connectivity and accessibility

153 Despite the changes, Mr Nicholson's view is that the plan change would have low-moderate levels of external connectivity. Mr Nicholson says that the rating "reflects that while the level of internal connectivity shown on the ODP would be high and there are roads on three sides of the ODP, the network of roads which

- connects PC31 to the wider district are narrow high-speed rural roads with no pedestrian or cycle facilities".
- First, I note that Mr Nicholson's concerns would apply to other urban settlements in the district, insofar that their connectivity to the wider district is by way of high-speed (albeit not always narrow) roads with no pedestrian or cycle facilities. For example, a commute from Tuahiwi to Rangiora would encounter similar conditions compared to a commute from Ōhoka to Rangiora (at least until the commute reaches Rangiora-Woodend Road with its off-road path). Further, a commute from Waikuku Beach to Rangiora or Woodend is only partially served with off-road paths.
- 155 Mr Fuller's evidence references the planned cycle/pedestrian network for the area which connects the site to Rangiora and Kaiapoi mainly via 'Grade 2' routes (described as unsealed paths less than 2.5 metres wide). While this network is not currently funded, I suggest that approval of the plan change would increase its viability and likely bring forward implementation.
- 156 In respect of "high-speed rural roads", I note that Council's Speed Management Plan seeks to reduce the speed limit on rural sealed roads from 100km/h to 80km/h. This will improve safety.
- 157 While the plan change site may not be as highly connected compared to a location adjoining a larger urban centre, I consider that it is well connected along transport corridors, including by public transport as I will discuss later. The matter of connectivity is otherwise addressed by Mr Falconer and Ms Lauenstein who both consider the level of connectivity is high internally and in respect of the immediate surrounds, and at least moderate externally. I agree with these assessments.
- 158 Mr Nicholson also expresses concerns in respect of accessibility in terms of access to public services and facilities particularly within easily walkable or cyclable distances (using 1km walking distance as providing good access and 4km for cycling). Mr Nicholson judges the proposed plan change would have a low level of accessibility citing poor access to the retail, educational, recreational, community services that are located within the larger centres.
- The plan change site is not within a walkable distance of Kaiapoi, Rangiora and Christchurch, and it is not within a cyclable distance for many people (certainly not in respect of Christchurch). In terms of walkability, I note that a significant portion of the population of the larger urban areas live further than 1km from public services and facilities. Further, a significantly improved local offering of goods and services proposed by the plan change provides walkability for both future and existing residents.

- 160 While the proposed cycle network will provide for recreational cycling, it will benefit relatively few existing/future residents in terms commuter cycling given the distance to the larger centres. However, I note that Ōhoka is closer to Christchurch (the main employment centre for the sub-region) compared to Rangiora, Woodend and Pegasus. These locations are also beyond a reasonable cycling distance of the main employment centre of Greater Christchurch.
- Mr Nicholson states that the site is not within a walkable distance of Ōhoka School. This is because the school is poorly located a considerable distance from the centre of Ōhoka. A primary school is ideally located at the centre of the population it serves. This provides access to school by way of active transport and is one of the reasons why a primary school is provided for within the plan change site a location that is supported in the evidence of Dr Wall.
- 162 Existing and future secondary school aged children attending Kaiapoi High School have the option of commuting to/from school on the existing Ministry-funded bus service. Dr Wall considers this route could be slightly re-routed to serve the plan change site. In terms of children attending school in Christchurch, Mr Milner considers that there are viable public transport options. Dr Wall also notes that there are also "three existing bus services that connect Rangiora and Kaiapoi with specific State, State Integrated and Private schools within Christchurch City, which could also potentially be extended to service" the plan change site.
- In terms of recreation, I consider the plan change proposal provides good access to recreation opportunities including to the planned cycle/pedestrian network as mentioned above, the Ōhoka Domain, and local walking tracks. The proposal also provides additional passive recreational opportunities along enhanced waterways within the site and a planned polo field within the site.
- Overall, I consider the plan change proposal provides good accessibility while acknowledging rates of commuter cycling will be lower compared to locations closer to the larger urban centres. However, as noted earlier in this evidence, there are few feasible or practicable alternative locations where sufficient development capacity can be provided closer to the district's existing urban centres.

Transport network effects

Mr Fuller addresses the Officer's/Mr Binder's concerns at paragraphs 62 to 85 and submitters concerns separately. In terms of potentially elevated traffic safety risk on Tram Road and Mill Road, I note that most traffic will be via Tram Road which is subject to partially

²⁰ Evidence of Gabrielle Wall, paragraph 45.

funded²¹ programme of safety improvement works. Mr Fuller considers it appropriate that development contributions levied in respect of the proposal would contribute to funding that programme of works so that it might be brought forward.

- Mr Fuller finds that the intersections in the immediate vicinity of the Plan Change site are predicted to operate satisfactorily. Similarly, the Tram Road/State Highway 1 interchange will operate satisfactorily accommodating up to 250 allotments (and possibly more subject to detailed assessment). In terms of the interchange, Mr Fuller notes upgrades to this interchange can be readily provided within its existing road width that would accommodate all traffic from the plan change. Notwithstanding, he supports a proposed rule allowing for assessment of the interchange and the implementation of upgrade works, if required, following the establishment of 250 households within the site.
- 167 Mr Fuller also considers it appropriate that development contributions be levied to contribute to funding of a roundabout at the intersection of Tram/Bradleys/McHughes, widening of Tram Road between Bradleys and Jacksons, and the previously mentioned Tram Road safety improvements.
- I note that requirements for road network infrastructure upgrades (including upgrades to intersections with the State Highway network) as a pre-requisite to proposed development and reliance on development contributions or developer funding agreements are not unusual for plan changes generally. Such requirements have been supported by Council officer's and decision makers in respect of private plan changes and proposed district plan rezoning proposals in the Selwyn District (for example, Plan Change 66, Plan Change 69 and Plan Change 80).
- 169 Subject to the upgrades, which are secured by way of proposed rules and the ODP, Mr Fuller considers the proposal is appropriate in in terms of impacts on the transport network. I accept and rely on his evidence.
 - Vehicle kilometres travelled and emissions reduction
- 170 The Officer's Report considers that the location of the site will result in increases in vehicle kilometres travelled ('**VKT**') and transport related GHG emissions, and that impacts on safety, health, accessibility, and congestion are not mitigated by increasing use of electric vehicles. I address these matters separately below.

²¹ \$12m is currently allocated to this programme Council's Long Term Plan.

VKT

- While I consider that VKT may increase because of the proposal, it is difficult to determine by how much, noting that Ōhoka is closer to Central Christchurch than Rangiora, Woodend and Pegasus, and therefore reduced VKT associated with commuter traffic from Ōhoka may offset the VKT associated with dedicated trips from Rangiora, Woodend and Pegasus.
- 172 The Officer's Report, in reference to Mr Binder's evidence, states:

Council identified Development Areas within the PDP have deliberately been co-located with Rangiora and Kaiapoi and are, at the furthest, about 3.0 km as the crow flies from established key activity centres (which include existing retail, employment, health, and education destinations). In contrast, the furthest point of the proposed development is almost 4.0 km from the nearest retail (the Mandeville neighbourhood centre) and 8.0 km or more from the nearest key activity centre. He concludes that the subject site is not well-located to existing urban areas and that travel distances to key facilities are likely to be higher than those from identified Development Areas (which by definition increases VKT and likely GHG emissions).

- As previously established, the assumed development capacity of the proposed NDAs has been significantly overstated. Additional land will be needed to accommodate demand, and further expansion of the existing urban centres in the east of the district may not be appropriate accounting for development constraints. In that context, it may not be appropriate to compare the VKT of the proposal with VKT of development locations closer to the larger urban centres in the district.
- 174 Further, and as identified previously, the approval of the proposal would result in a significantly improved local offering of goods and services within walking and cycling distance of existing and future residents. Ms Hampson considers that the larger of the proposed Business 4 zones will be anchored by a supermarket and "would also be expected to accommodate a small mix of food and beverage retail activity (takeaways, cafes, restaurants/bar), commercial services (such as a hair salon, beauty salon, vets), maybe a health care facilities (such as a medical centre), potentially a preschool (as seen in Mandeville), and any complementary convenience retail, such as a chemist (particularly if medical centre is provided)"22. I consider that this sort of provision would have a VKT reducing influence.

²² Evidence of Natalie Hampson, paragraph 67.

GHG emissions

- 175 Transport related GHG emissions are addressed in the evidence of Mr Farrelly. He discusses various mitigating factors such as public transport options, ride sharing, electric vehicles, working from home, and travel behaviour and concludes that the proposal supports the reduction of transport related GHG emissions. I accept and rely on his evidence.
- 176 The full context of the proposal in terms of GHG emissions is addressed in the Statutory Analysis section.

Passenger transport evaluation

177 The original plan change request suggests that the residents can travel to Christchurch by bus using park and ride facilities in nearby Kaiapoi. Mr Binder considers that this does not provide appropriate public transport options. Mr Milner addresses public transport matters. Rather than discuss his findings, I have reproduced his conclusion below.

"It is my opinion that the PC31 site and wider Ōhoka and Mandeville community can be provided with appropriate public transport services to link them to Rangiora, Kaiapoi and beyond to onward destinations in Christchurch. It has been noted in my evidence that the applicant is supportive of these initiatives and is willing to deliver both capital items and ongoing operational cost support for a period of time to trial services, so that they can be adjusted to work as best as they can in the longer term.

If PC31 is approved, it needs to have public transport services to support it. Whilst this is not currently in any plans or future funding programmes, this is because PC31 does not exist and the current Ōhoka community is not of a scale or density that would be able to support any form of viable public transport – the exception being existing Ministry of Education funded school services and private shuttle arrangements that take booking on an ad hoc basis.

It is my belief that PC31 and the proposed capital investment and potential initial operational funding support from the applicant would give local authorities the financial support to trial and then embed innovative public transport solutions to support this type of semi-rural community and also that this service could support residents in west Rangiora and west Kaiapoi with a better form of public transport than their current low frequency, fixed route bus services"

178 I accept and rely on Mr Milner's evidence and consider it adequately addresses the concerns raised. I understand the mechanism for

ensuring the capital and operational investment proposed by the developer will be addressed in the evidence of Mr Carter or in legal submissions.

Transport conclusion

Accounting for the assessment above, I consider the proposal is appropriate from a transport perspective.

Character, Amenity and Landscape Matters

- 180 The Officer's Report identifies these matters as having received the most comments from submitters. This is unsurprising given the community's high sensitivity to change in this location which is reflected in several planning documents.
- I acknowledge the concerns of the submitters which are succinctly summarised at paragraph 6.9.2 of the Officer's Report. In responding to the Officer's Report, I rely on the evidence of Mr Falconer (urban design), Ms Lauenstein (urban design), Mr Milne (landscape architecture) and Mr Compton-Moen (urban design and landscape architecture).
- The following assessment follows the relevant subtitles of Mr Nicholson's evidence except for 'connectivity' and 'accessibility', noting that I have previously addressed these, and 'well-functioning urban form', which I address in the Statutory Analysis section.

Existing environment

- 183 Mr Nicholson's account of the existing environment is factual but is too narrowly focused according to Ms Lauenstein who considers that a wider analysis is required to gain an "adequate and full understanding of the structure and form of the township"²³. Ms Lauenstein thoroughly examines the existing environment in paragraphs 34 to 59 of her evidence as do the other urban design / landscape experts.
- In brief, Ms Lauenstein considers that the core of the settlement, the part that provides its village character, is confined within the north and south tributaries of the Ōhoka Stream. Beyond the core, residential development is hidden behind mature vegetation. Ms Lauenstein considers that the proposal successfully emulates this form by including the proposed commercial aspects within the core and screening residential development from view on the approaches to the village centre.

²³ Evidence of Nicole Lauenstein, paragraphs 138.

Compact urban form

185 Mr Nicholson considers that the proposal does not represent compact or consolidated urban form. Mr Falconer, Ms Lauenstein and Mr Compton-Moen disagree and suggest assessing urban form is a complex matter, where Mr Nicholson has mainly reduced the assessment to the shape and size. All the applicant's urban design experts consider the proposal does provide a compact form and also consolidates the settlement by filling a gap in its radial form.

Character

Mr Falconer and Ms Lauenstein both give their opinions as to what constitutes 'rural village character', something that Mr Nicholson considers the plan change fails to maintain or retain "as a result of the increased size and population of the settlement, the increased 'suburban' densities, and the potential scale of the retirement home / educational facility". This is clearly an important aspect of the 'character' assessment.

187 Mr Falconer and Ms Lauenstein consider that character is not a function of size, and not necessarily density either. Messrs Falconer and Compton-Moen consider that the rural village character can be retained and enhanced through careful and considered design. Ms Lauenstein would agree and considers that village character develops from a combination of a "shared history and culture ..., and specific spatial urban structures, and recognition and response to locally unique landscape features"²⁴. At her paragraph 65 she lists the following design features of the proposal that ensure maintenance of the village character of Ōhoka:

Ensuring the underlying spatial structure of the proposed development itself uses the Ōhoka Stream south of Mill Road as a naturally dense landscape break to contain the village core;

Placing all commercial and community based activities within PC31 into the northern-most part to embed them directly in the village core;

Using the waterway crossings as a spatial threshold that sequences the arrival into Ōhoka along Bradleys and Whites Roads to create legible thresholds and together with the waterways provide clear spatial definitions;

Providing a cohesive and dense landscaped edge to Whites and Bradleys roads to provide a rural character and to screen

²⁴ Evidence of Nicole Lauenstein, paragraph 63.

the development in a similar manner as the road frontage treatment of neighbouring lifestyle properties;

Continuing the standalone dwelling typology; and

Avoiding references to suburban characteristics by controlling the use of solid, closed fencing around properties, typical kerb and channel roads etc"

- Mr Falconer suggests that, while there are differing opinions about what rural village character is, there is broad consensus that it does not include "large format commercial and/or heavy industrial, vehicle domination, lack of human scale and interest, poor paths and open space, lack of built character and lack of profuse planting etc."²⁵. The plan change proposal does not include any of these features.
- 189 In considering village character from a landscape perspective, Mr Milne's assessment is that "the existing character of Mill Road and the eclectic-built form to either side is retained and from a visual amenity perspective this defines the current 'heart' of the village. This will not change"²⁶.
- 190 Messrs Falconer and Milne and Ms Lauenstein are confident that the proposal does retain the village character of Ōhoka.
- 191 In response to Mr Nicholson's concerns regarding the scale and character of a potential school and retirement village, it is proposed that these activities require a restricted discretionary resource consent. This allows an assessment to ensure any proposal would (among other things) be consistent with the rural village character of the Ōhoka settlement. Further, the proposed 12-metre height limit relating the to school site has been reduced to 8 metres.

Landscape and visual impact

Mr Nicholson considers that the impact of the proposal on landscape character and visual amenity would be moderate to high.

Amendments to the proposal have been developed in response to concerns raised by submitters. Accounting for these, Mr Milne has assessed the landscape change that would result from the proposed and its impact on visual amenity are acceptable in the context of the existing and anticipated environment (which includes potential rural lifestyle subdivision of the site). Mr Compton-Moen agrees, and I note that his evidence includes a full description of all the features

²⁵ Evidence of Garth Falconer, paragraph 67.

²⁶ Evidence of Tony Milne, paragraph 44.

- of the proposal that provide mitigation of potential adverse visual effects.
- 193 Both Mr Milne and Mr Compton-Moen disagree with Mr Nicholson's contention that the proposal will result in a sprawling low-density residential conurbation joining Ōhoka and North Mandeville.
- I note that Mr Nicholson references Policy 6 of the NPS-UD stating that "changes to amenity values such as landscape character and visual amenity need to be balanced against the positive effects of increased housing supply and choice, and are not, of themselves, an adverse effect as it relates to amenity values"²⁷. While it is correct to reference Policy 6, I do not consider that the policy requires changes to amenity values to be balanced against positive effects. Policy 6 anticipates that significant changes to an area that may:
 - (i) may detract from amenity values appreciated by some people but improve amenity values appreciated by other people, communities, and future generations, including by providing increased and varied housing densities and types; and
 - (ii) are not, of themselves, an adverse effect
- 195 Policy 6 is discussed further in the Statutory Analysis section.
 - Character, amenity and landscape matters conclusion
- 196 Relying on the evidence of Ms Lauenstein and Messrs Falconer, Milne and Compton-Moen, which I accept, I consider the proposal:
 - 196.1 results in a compact and consolidated urban form,
 - 196.2 retains the village character of Ohoka, and
 - 196.3 is acceptable in terms of landscape change and visual amenity impacts.

Other Matters

197 The Officer's report lists several specific concerns raised by submitters that did not easily fit within the main assessment topics. Many of these concerns, and others, are specifically addressed in the evidence of the applicant's experts.

²⁷ See Mr Nicholson's report, paragraph 11.9.

STATUTORY ANALYSIS

Statutory Documents

National Policy Statement on Urban Development 2020

- The Officer's Report addresses the NPS-UD in detail under subheadings of all its relevant provisions. I agree with the Officer that the application of the NPS-UD is of critical importance to the plan change request. If the NPS-UD does not apply, or the plan change request is not consistent with it, there would be strong grounds for refusal of the request. I am confident however, that the NPS-UD does apply, and that the request is consistent with it.
- 199 In my view, the key considerations are:
 - will the proposal provide significant development capacity (Objective 6, Policy 8 and Clause 3.8),
 - will the proposal contribute to a well-functioning urban environment (Objective 1, Policy 1, Policy 6, Clause 3.8, Clause 3.11),
 - is the site able to be adequately serviced with infrastructure (Objective 6, Policy 10, Clause 3.5), and
 - is it well-connected along transport corridors (Clause 3.8).
- The assessment below addresses the NPS-UD provisions, but not in the same order as Officer's Report. I do, however, begin by addressing the Officer's first question: is Ōhoka part of the urban environment?

Urban Environment

- 201 PC31 is not the first plan change to address this matter. Of the numerous recently decided plan changes within the Greater Christchurch sub-region, I consider Plan Change 67 to the Selwyn District Plan ('PC67') is the most relevant to PC31.
- 202 Commissioner David Caldwell recommended approval of PC67 which sought rezoning of approximately 33 hectares of land in West Melton from rural to residential to enable 131 residential sites. Selwyn District Council made the plan change operative on 18 May 2022.
- 203 Like Ohoka, the West Melton population is considerably less than 10,000 people, it is not a Key Activity Centre, nor is it identified as a location for urban expansion in the CRPS. I also note that the PC67 land adjoined an existing urban area as identified on Map A of the

CRPS, as does PC31. The planning evidence for the applicant in respect of PC67 notes the following:

the decision to put the plan change request forward as part of a Greater Christchurch urban area, was in response to advice received from Selwyn District Council prior to lodgement, that the Greater Christchurch Partnership had determined that the area of "Greater Christchurch", shown on Map A in the Regional Policy Statement, constituted an urban environment for the purposes of the NPS-UD and particularly with respect to the processing of plan changes that might seek unanticipated or out of sequence development. I note that in July 2021, Selwyn District Council further confirmed in the Section 42a Report for PC63, that the Greater Christchurch Partnership has determined that the urban environment subject to the NPS UD is the Greater Christchurch area, as shown on Map A within Chapter 6 of the CRPS (paragraph 153).

There was broad agreement between the planning experts involved in PC67 (including the planner for Christchurch City Council & Canterbury Regional Council) that West Melton forms part of the urban environment as part of the Greater Christchurch area. The same applies to Ōhoka within the Waimakariri District context.

Objective 3 and Policy 2

- 205 Objective 3 supports enablement of residential growth in areas that are near a centre zone or other area with many employment opportunities, well-serviced by existing or planned public transport, or have high demand for housing relative to other areas within the urban environment. I consider the proposal supports this objective, noting the subject land is:
 - 205.1 near areas with many employment opportunities including Rangiora, Kaiapoi, Christchurch, and rural Canterbury,
 - 205.2 not currently, or planned to be, well-serviced by public transport, and
 - 205.3 in an area where there is high demand for housing, relative to other areas within the urban environment, as demonstrated in the evidence of Messrs Akehurst and Jones and Ms Hampson.
- 206 In relation to the condition regarding proximity to employment opportunities, the Officer's Report considers that Ōhoka is not near Kaiapoi, Rangiora or Christchurch, "when assessed relative to other development locations attached to those centres"²⁸. While that may

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²⁸ Officer's Report, paragraph 7.3.45.

be so, further expansion of Rangiora and Kaiapoi (in particular) is subject to several constraints as previously discussed in this evidence. Further, I note that Ōhoka is closer to Christchurch (the main employment centre for the sub-region) compared to Rangiora, Woodend, and Pegasus.

- Given the NPS-UD does not define what 'near' means, some judgement is required. In my view, Ōhoka is near Kaiapoi, Rangiora and Christchurch. Time-space convergence has brought Ōhoka closer to these locations (particularly Christchurch) with improvements in motor vehicles and transport infrastructure. The drive time to the centre of these locations from Ōhoka is roughly 9, 12 and 24 minutes respectively. In the context of major metropolitan areas, I consider this represents a near location. While these locations are not within walking distance of Ōhoka, neither are many of the "development locations attached to those centres" that the Officer refers to. In terms of cycling distance/travel time, Ōhoka would be considered near to Rangiora and Kaiapoi by some people and not by others.
- In respect of current or planned public transport servicing, I note the evidence of Mr Milner that the plan change site, wider Ōhoka area and Mandeville community "can be provided with appropriate public transport services to link them to Rangiora, Kaiapoi and beyond to onward destinations in Christchurch"²⁹.
- 209 In relation to the demand condition of Objective 3, I agree with the Officer that the s32 assessment contained little evidence to demonstrate that there is high demand in Ōhoka relative to other parts of the district. That has been rectified through the evidence of Messrs Akehurst and Jones and Ms Hampson which identifies high demand. The Officer's Report acknowledges that Council has not procured local market demand evidence.
- 210 While I consider that the proposal meets at least two of the objectives conditions, I note that it only requires one to apply.
- 211 Policy 2 implements Objective 3 by placing an obligation on Council to:
 - at all times, provide at least sufficient development capacity to meet expected demand for housing and for business land over the short term, medium term, and long term.
- 212 My evidence, as well as the evidence of Mr Akehurst, demonstrates that Council is currently failing to meet its obligation. In fairness to Council, it has attempted to provide sufficient development capacity to meet expected housing demand, but a more fine-grained analysis

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²⁹ Evidence of Simon Milner, paragraph 108.

shows that the actual capacity is significantly lower than assumed. That fine-grained analysis should have been undertaken by Council as required by Objective 7 of the NPS-UD which requires local authorities to have "robust" information about their urban environments and use it to inform planning decisions.

213 Policy 2 also implements Objective 2 which seeks planning decisions that improve housing affordability by supporting competitive land and development markets. The Officer's Report, relying on the evidence of Mr Yeoman, concludes that the proposal would deliver dwellings that would only be affordable to high income households. In my view, this approach considers affordability with a narrow lens. Another perspective is to consider the situation if the plan change was refused. A development capacity shortfall has been identified and expansion of the existing centres is constrained. Forgoing the additional development capacity provided by the plan change proposal would, in my opinion, only exacerbate existing housing affordability issues. While the plan change may not result in affordable housing³⁰ at Ōhoka, that is not what Objective 2 seeks. However, the plan change will improve housing affordability by supporting competitive land and development markets. This conclusion is supported by the evidence of Mr Akehurst. Further, the housing provided for by the proposal will be, for the most part, more affordable than existing housing in the area on larger properties.

Policy 8 and Clause 3.8

- Policy 8 and Clause 3.8 of the NPS-UD implement Objective 6, in part, by providing for the consideration of proposals that are unanticipated by RMA planning documents or out-of-sequence with planned land release. As discussed previously, urban expansion of Ohoka is unanticipated.
- 215 Council must be responsive to, and have particular regard to the development capacity provided by, plan change proposals that:
 - provide significant development capacity,
 - contribute to well-functioning urban environments, and
 - enable development that is well-connected along transport corridors.
- 216 Based on the economic evidence of Mr Akehurst, the proposal will add significantly to development capacity within the context of Öhoka and the district. He considers that the proposal will represent approximately 15% of district dwelling growth over the ten-year

³⁰ In terms of the accepted standard measure of affordability (three times median incomes)

period from 2026 to 2036³¹. Arguably, it would also add significantly to development capacity within the Greater Christchurch context, albeit to a lesser extent given the scale of the sub-region. I note that, in relation to PC67³², Commissioner Caldwell agreed with the applicant's planner that assessing significance at a Greater Christchurch scale is not appropriate given it would prevent the majority of, if not all, plan changes from progressing. This would undermine the intent of the NPS-UD which, in part, was to provide some flexibility to address planning capacity constraints, to free up more land and improve competitiveness.

- 217 Further, I consider that the development capacity enabled by the plan change will be well-connected along transport corridors. The plan change site is close to State Highway 1 which is accessed from the site via primary collector roads (Bradleys and Mill) and district arterial roads (Tram and Ōhoka). The site is also well connected via collector and arterials roads to the urban centres of the district. This conclusion is supported by the evidence of Mr Fuller.
- In my view, the proposal is also consistent with Policy 1 which requires that *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
 - (ii) enable Māori to express their cultural traditions and norms; and
 - (b) have or enable a variety of sites that are suitable for different business sectors in terms of location and site size; and
 - (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) support reductions in greenhouse gas emissions; and

³¹ Evidence of Greg Akehurst, paragraph 91.

³² Commissioner Caldwell considered that the 131 additional residential allotments proposed via PC67 was significant in terms of Policy 8.

- (f) are resilient to the likely current and future effects of climate change.
- 219 By my interpretation, PC31 would not necessarily need to satisfy all the Policy 1 criteria. Rather, it must be demonstrated that approval of PC31 would *contribute* to a well-functioning urban environment. In this instance, Greater Christchurch is the urban environment that an expanded Ōhoka would form part of and contribute to. For the purposes of my assessment, I assume that Greater Christchurch is a well-functioning urban environment, while acknowledging that parts of the sub-region function better than others in respect of the Policy 1 criteria.
- 220 While the proposal would not necessarily need to satisfy all the Policy 1 criteria, I consider that it does for the reasons discussed below.

Clause (a) – a variety of homes

The proposal provides for a greater variety of housing at higher density compared than the current stock in the Ōhoka area where there is a demonstrated demand (see the evidence of Messrs Akehurst and Jones). While homes within the plan change site may not be within the 'affordable' range, they will be more affordable compared to the existing offering. Further, the proposal will enable Māori to express their cultural traditions and norms, to the extent relevant to the site context. I note that Te Ngāi Tūāhuriri Rūnanga assessed the proposal and requested waterway protection. The proposal provides that protection as well as significant enhancement of the waterways within the site.

Clause (b) – a variety of business sector sites

Provision for local convenience goods and services for existing and future residents of Ōhoka is made via the proposed Business 4
Zones including hosting of the farmers market during winter months. A variety of sites will be made available to meet demand and therefore business needs at the local scale. Beyond Ōhoka, the nearby Key Activity Centres of Rangiora, Kaiapoi and Christchurch provide wider offerings.

Clause (c) – good accessibility

The proposal provides good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport noting the findings in the evidence of Mr Fuller and my previous assessment regarding connectivity and accessibility at paragraphs 153 to 164. Policy 1 does not specify what form the accessibility should take; it simply states at the end of the policy "including by way of public or

active transport". This is the conclusion that was reached in respect of accessibility in the Ohinewai rezoning of the Proposed Waikato District Plan³³.

Clause (d) - competitive operation of land and development markets

- 224 Mr Akehurst discusses how the proposal supports the competitive operation of land and development markets³⁴. He considers that approval of PC31 will avoid or minimise the impacts of monopolistic competition with respect to residential land and suggests that this represents a significant economic benefit.
- 225 I also note that the applicant has not previously been active in the Waimakariri District. Its entry to the market would increase competition. Further, the applicant is not a house builder, therefore, the properties it sells will allow for greater competition in the construction sector.

Clause (e) - support reductions in greenhouse gas emissions

226 Mr Farrelly provides a thorough assessment of the proposal in respect of this matter and concludes that it supports reductions in greenhouse gas emissions due to the "removal of dairying activity and its associated emissions from the PC31 land" and the applicant "taking practical steps in the design of PC31 to support a reduction in emissions arising from the development and occupation of dwellings and commercial buildings, and emissions arising from transportation"³⁵. I accept and rely on his evidence.

Clause (f) - resilience to climate change

- 227 The constraints maps at **Attachment B** demonstrate that large areas of the district are susceptible to the predicted current and future effects of climate change, particularly relating to exposure to natural hazards such as coastal inundation and flooding.
- 228 A recent (March 2023) opinion of Dr Jo Horrocks³⁶ (chief resilience and research officer with Toka Tū Ake EQC) raises the following relevant concerns/observations:

"At Toka Tū Ake EQC we see troubling trends in how quickly some properties go from build to insurance claim".

³³ See paragraph 312 of Report 2 of the Waikato District Plan Hearings Panel -Ohinewai Rezoning.

³⁴ Evidence of Greg Akehurst, paragraphs 124 to 127.

³⁵ Evidence of Mr Farrelly, paragraph 155.

³⁶ See eqc.govt.nz/news/natural-hazard-risk-must-become-top-priority-in-land-use-planning/

"Many properties have been recently built in – or are still being built in – foreseeably hazardous locations; on flood plains, close to cliff edges, at sea level, or on highly liquefiable land".

"We know we have an urgent need for housing but growth needs to be smart growth, resilient growth; not putting people in harm's way, and not setting ourselves up for greater costs and social impacts in the future".

"We need to avoid or limit building on some of our highestrisk, or multi-risk land".

- The proposal achieves resilience to the likely current and future effects of climate change through:
 - 229.1 the distance of Ōhoka from coastal areas susceptible to sealevel rise and storm surges,
 - 229.2 the ability to avoid the potential effects of flooding, and
 - 229.3 the attributes of the proposal discussed in Mr Farrelly's evidence.
- 230 Consistency with clauses (e) and (f) also demonstrates that the proposal gives effect to Objective 8 of the NPS-UD.

Objective 1

On the basis of the preceding Policy 1 assessment, I consider the proposal is consistent with Objective 1. It contributes to and maintains a well-functioning Greater Christchurch enabling people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.

Objective 4

- This objective recognises that urban environments, including their amenity values, develop and change over time in response to the diverse and changing needs of people, communities, and future generations. The proposal responds to the diverse and changing needs of people, communities, and future generations in a manner consistent with this objective. At a broader scale, the same can be said of the rapid and continuing growth of the district within the Greater Christchurch context, which is evidently occurring 'in response to the diverse and changing needs of people' choosing this location over alternative locations or housing types.
- 233 To the extent that the appreciation of the status quo by some may be diminished by the proposal, Policy 6 recognises the potential for change and that this is not necessarily an adverse effect.

Objective 6

- Objective 6 of the NPS-UD seeks that local authority decisions on urban development that affect urban environments are integrated with infrastructure planning and funding decisions; strategic over the medium term and long term; and are responsive, particularly in relation to proposals that would supply significant development capacity.
- 235 The aspect relating to responding to proposals that deliver significant development capacity has been addressed previously. The proposal clearly provides significant development capacity, and on that basis this objective seeks responsive decision making. I also note that the NPS-UD only requires that sufficient capacity is provided, it does not preclude greater capacity being provided. It seeks to ensure minimum capacity requirements are met. It does not seek to limit further capacity provided such additional capacity meets the other NPS-UD policy tests. In my view, the risk of undersupply far outweighs any consequence arising from an over-supply.
- The responsive decision-making directive has the potential to create some tension with the requirement to be strategic over a medium and long term. The CRPS, Our Space and draft GC Spatial Plan along with the District Development Strategy and Proposed Plan, set out the strategic direction for the medium and long term. While expansion of Ōhoka is not part of the growth strategy, I consider it is required to address a shortfall of development capacity in the district. Identification of the plan change site as a suitable candidate for growth has been carried out in a strategic way. It involved identification of a development capacity shortfall, and identification of suitable areas to accommodate growth by way of mapping constraints and opportunities. On this basis, I consider that enablement of this proposal would be strategic and therefore consistent with this aspect of the objective.
- 237 In terms of the infrastructure aspect, the infrastructure and transport evidence has demonstrated that the proposal can be effectively integrated with infrastructure planning, funding and delivery.

NPS-UD Conclusion

238 Based on the assessment above, I consider that the proposal is consistent with the NPS-UD. For the same reasons, I consider refusal of the proposal would be inconsistent with the NPS-UD.

Lower Order Planning Documents

The following assessment considers the objectives and policies of the relevant planning documents (statutory and non-statutory). Given the nature, scale and location of the plan change proposal,

there are a particularly large number of relevant provisions. Rather than commenting on each and every objective and policy, I have structured my assessment thematically focusing on what I consider to be the most important aspects, with reference to the same documents identified in the Officer's Report. Consistent with the approach in this evidence, if a matter is not specifically dealt with, it can be assumed that there is no dispute with the position set out in the Officer's Report.

Urban Form and Growth

240 The Officer and I agree that the proposal is contrary to those provisions which direct where urban growth is to be located. I also agree with the Officer that the proposal does not align with the non-statutory direction in Our Space, the draft GC Spatial Plan and the District Development Strategy in respect of the location of urban growth. In respect of the CPRS, the Officer's Report notes the following on this matter at paragraph 73.102:

Whether the NPS-UD's directive policies 'override' the CRPS's directive approach or vice versa is a significant matter and clearly in contention given the ECan submission. As this may be determinative, in my opinion insufficient evidence has been presented in RCP031 to enable me to form an opinion on this matter. I anticipate further evidence and legal submissions will be provided to the Hearing Panel on this topic and I therefore anticipate being able to provide an opinion on this matter after having heard all the relevant evidence from the Applicant and submitters. The Hearing Panel may also wish to direct caucusing on this.

- 241 I understand that the legal submissions of RIDL's solicitors will thoroughly address this matter. Therefore, I simply put forward my opinion that Policy 8 of the NPS-UD provides the opportunity to allow the proposed rezoning that would otherwise be precluded by the CRPS and other planning documents. Whether the proposal should be allowed depends, in my view, on consistency with the relevant provisions of the NPS-UD.
- I note this matter has been considered in deciding various recent plan change applications in Greater Christchurch. The PC67 recommendation report, as previously referred to, contains a thorough and useful commentary on the relationship between the NPS-UD and CRPS³⁷. Plan Change 80 to the Selwyn District Plan (now operative) was decided by the same commissioner (David Caldwell). The recommendation report for that plan change also contains a relevant commentary on the relationship between the NPS-UD and CRPS. The matter was also recently considered in Nelson in relation to Plan Change 28 to the Nelson Resource

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³⁷ See paragraphs 124 to 173.

Management Plan which was decided by an independent hearings panel comprising Greg Hill (Chair), Sheena Tepania, Gillian Wratt and Nigel Mark-Brown. In all these cases (and in others), the commissioners found that the NPS-UD enables appropriate plan changes to be assessed and determined on their merits, including where there are avoidance objectives and policies in regional policy statements and district plans.

Policies 6.3.3 (Development in accordance with outline development plans) and 6.3.7 (Residential location, yield and intensification) of the CRPS were not considered in the request because, as the Officer points out at paragraph 7.3.90, they do not technically apply to the proposal. Despite that, I consider the proposal generally accords with these policies. Specifically, I note that the development would achieve the minimum density of 10 hh/ha (the intention is for 12 hh/ha).

Productive rural land

244 Consistent with the purpose of the Act in respect of safeguarding the life-supporting capacity of soil, the CRPS as well as the operative and proposed district plans seek to protect productive soil resources. Specifically, Objective 4.1.1 of the District Plan seeks the maintenance and enhancement of the life-supporting capacity of the land resource. Policy 4.1.1.6 provides more specificity as follows:

Where soils have been classified as versatile, promote land uses which safeguard the life supporting capacity of those soils and promote their availability for future uses.

- 245 The Officer considers the proposal is contrary to Objective 4.1.1. While the proposal certainly does not maintain or enhance the life-supporting capacity of the land resource, the above policy which implements the objective is only concerned about versatile soils³⁸ which make up no more than 2.45% of the site.
- Objective SD-04 of the Proposed Plan seeks that rural land is managed to ensure that it remains available for productive rural activities. The proposal is clearly inconsistent with this objective.
- In my view, while the proposal is inconsistent with provisions that seek to protect productive soil resources, I do not consider the proposal to be contrary to these provisions given:
 - 247.1 the District Plan anticipates subdivision of the land into fourhectare allotments which would significantly reduce its rural productive value,

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³⁸ Land Use Category 1 and 2 soils according to the CRPS and District Plan.

- 247.2 the site contains only a small area of versatile soils,
- 247.3 primary production is constrained, to a degree, as identified in the evidence of Mr Mthamo, and
- 247.4 the low return on capital renders primary production uneconomical.
- Further, as assessed previously, the benefits associated with providing required development capacity outweigh the costs relating to the loss of productive land.

Centres

In the absence of sufficient evidence to support the proposed commercial areas, the Officer considered that "that there may be a distributional impact on the Mandeville Business 4 area, which is equivalent to a neighbourhood centre in the CRPS centres hierarchy". On this basis the Officer's Report finds the proposal does not give effect to objectives 6.2.5 and 6.2.6 which relate to centres and business land development. Based on the evidence of Ms Hampson, and a proposed retail activity floor space cap, I consider the proposal now achieves consistency with these provisions.

Character and Amenity

- 250 The character and amenity considerations of the proposal are well traversed in the evidence of Messrs Milne and Falconer and Ms Lauenstein who find that the proposal retains the village character of Ōhoka and is acceptable in terms of landscape change and visual amenity impacts. The assessment of these experts demonstrates consistency with various provisions of the statutory documents that seek the maintenance and enhancement of character (particularly relating to small settlements) and amenity values.
- Policy 18.1.1.9 of the District Plan is of particular relevance as it relates to the growth and development of the Ōhoka settlement. It includes a suite of conditions that I consider the proposal holds to, noting that the conditions cover a wide spectrum of matters beyond consideration of character and amenity Given the relevance of this policy I have included it below for ease of reference. I note that the matters in the policy have been canvassed in detail in my evidence (and the evidence of the applicant's experts) and I consider the proposed achieves consistency with it.

Policy 18.1.1.9 Ensure that any growth and development of Ohoka settlement occurs in a manner that:

 maintains a rural village character comprising a predominantly low density living environment with dwellings in generous settings;

- achieves, as far as practicable, a consolidated urban form generally centred around and close to the existing Ōhoka settlement;
- encourages connectivity with the existing village and community facilities;
- achieves quality urban form and function;
- allows opportunities for a rural outlook;
- encourages the retention and establishment of largescale tree plantings and the use of rural style roads and fencing;
- limits the potential for reverse sensitivity effects;
- avoids significant flood hazards;
- promotes the efficient and cost-effective provision and operation of infrastructure;
- recognises the low lying nature of the area and the need to provide for stormwater drainage; and
- ensures that any residential development occurring in the Ōhoka settlement does not increase the flood risk within Ōhoka and adjoining areas.

Transport

The CRPS and district plans contain a suite of transport and energy related objectives and policies. Of the suite, Objective TRAN-01 of the Proposed Plan reflects the general aims of the planning documents by seeking:

An integrated transport system ... that:

- is safe, resilient, efficient and sustainable for all transport modes;
- 2. is responsive to future needs and changing technology;
- 3. enables economic development, including for freight;
- 4. supports healthy and liveable communities;
- 5. reduces dependency on private motor vehicles, including through public transport and active transport; and

- 6. enables the economic, social, cultural and environmental well-being of people and communities.
- 253 Given the distance of the plan change site to the larger urban centres, the proposal is not completely consistent with transport provisions. However, accounting for the transport assessment at paragraphs 150 to 179, the proposal achieves a level of consistency that I consider is acceptable given there are few feasible or practicable alternative locations where sufficient development capacity can be provided closer to the district's existing urban centres. The proposal:
 - 253.1 provides for an appropriate internal transport network including a safe walking and cycling environment,
 - 253.2 achieves an acceptable level of connectivity and is well-connected along transport corridors,
 - 253.3 provides good accessibility, acknowledging that rates of commuter cycling will be lower compared to locations within larger urban centres,
 - 253.4 is appropriate in terms of impacts on the transport network,
 - 253.5 can be provided with appropriate public transport services linking to other centres, and
 - 253.6 supports the reduction of transport related GHG emissions.

Natural hazards

- The constraints maps included at **Attachment B** demonstrate that the site has a low exposure to identified natural hazards. Most of the site is subject to a low risk of flooding whereas medium risk areas extend along waterways. The Officer's Report references Policy 11.3.2 of the CRPS which requires avoidance of development subject to inundation by a 0.5% AEP flood event. The amended plan change proposal includes a rule specifying a minimum freeboard which satisfies this requirement.
- 255 Beyond the plan change site, the Officer's Report is concerned that the proposal may exacerbate flooding downstream. Mr Throssell addresses this concern in detail and finds that any downstream impacts will be very minimal and acceptable.
- Overall, I consider the proposal is consistent with the natural hazards related provisions of the CRPS and district plans.

Part 2 Matters

257 Section 74(1)(b) requires any change to the District Plan to be in accordance with the provisions of Part 2. The original request documentation includes an assessment of the proposal against the provisions of Part 2 which finds that the proposal achieves the purpose of the Act. I agree with this assessment (see paragraphs 214 to 222 of the request) and consider that the changes to the proposal only strengthen the previous findings.

CONSIDERATION OF ALTERNATIVES, COSTS AND BENEFITS

258 The Officer's Report at paragraph 8.1.1. correctly identifies that section 32 of the Act requires:

the consideration and evaluation of the extent to which the objectives of the proposal (in this case, being the stated purpose of the request) are the most appropriate way to achieve the purpose of the Act (s32(1)(a)); as well as an assessment of whether the provisions in the plan change are the most appropriate way to achieve the objectives of the District Plan and the purpose of the request, having regard to the efficiency and effectiveness of the provisions and having considered other reasonably practicable options (s32(1)(b))

- In respect of these matters, I refer to the section 32 assessment contained in the plan change request at paragraphs 126 to 148. I mostly agree with this assessment, noting some details have changed since, and consider that the changes to the proposal and the further analysis provided in this evidence lends further support to the conclusions reached which are:
 - 259.1 the proposal achieves the purpose of the Act,
 - 259.2 the benefits of the proposal outweigh the costs,
 - 259.3 rezoning the land is the most effective means of achieving the objective of the proposal which is to provide for the expansion of the Ōhoka settlement with provision for some associated local business services, in a manner that adds significantly to development capacity and provides for increased competition and choice in residential land markets while maintaining the rural village character of Ōhoka, and
 - 259.4 the proposal is an efficient means of achieving the purpose of the request (i.e. the proposed rezoning).
- The section 32 analysis found that there were no notable risks of acting or not acting. In light of the development capacity analysis

and the identification of a significant shortfall, I consider that there may be some risk associated with not acting.

CONCLUSION

- The plan change proposal provides for approximately 850 dwellings, a school, retirement village, polo field and commercial centre providing for the day-to-day needs of existing and future residents.
- A suite of changes to the proposal have been made to address submitter concerns.
- A significant development capacity shortfall identified in this evidence means that there is not enough land available to provide for housing demand. Further, a possible underestimation of demand may exacerbate the problem.
- 264 Because large scale intensification in the Waimakariri context is not likely given the clear lack of demand for higher density housing, additional land needs to be identified to solve the development capacity problem.
- Demand for housing is focused in the east of the district where various development constraints have been identified. Accounting for the constraints, there are few alternatives available, including expansion of existing centres. Of the less constrained land, North Mandeville intensification and northwest Rangiora expansion are possibilities, but are highly unlikely to deliver the required capacity. Conversely, the plan change site in Ōhoka is readily available and would make a substantial contribution to reducing the shortfall. It stands out as a suitable candidate for rezoning given it provides a large contiguous area of land that can be developed comprehensively and in a timely manner.
- While PC31 is not anticipated by the planning documents, the NPS-UD enables consideration of its merits because it provides significant development capacity, contributes to well-functioning urban environment, and enables development that is well-connected along transport corridors.
- 267 On the merits, I consider the proposal is appropriate because:
 - 267.1 The plan change site has low exposure to natural hazards. While it is at some risk of flooding (less so than many other areas), modelling has determined that minimal mitigation is required to ensure that development of the site does not worsen flooding beyond the site.

- 267.2 The potential costs associated with the loss of productive land are outweighed by benefits of providing development capacity.
- 267.3 The distance of Ōhoka from coastal areas and the ability to manage flooding risk contribute to the resilience of PC31 to impacts of climate change.
- 267.4 The proposal supports reductions in greenhouse gas emissions due to the removal of dairying from the land and the applicant taking practical steps in the design of development to support a reduction in emissions arising from the development and occupation of dwellings and commercial buildings, and emissions arising from transport.
- 267.5 The plan change site can be serviced with all the necessary infrastructure.
- 267.6 The proposal provides local convenience for the local population. The commercial offering is likely to be anchored by a supermarket and would also be expected to accommodate a small mix of food and beverage retail, commercial services, and potentially health care facilities and a preschool.
- 267.7 The proposal will lead to an improvement to waterway ecology which is matter of importance to Te Ngāi Tūāhuriri Rūnanga.
- 267.8 The proposal provides good connectivity and accessibility at the local scale, and acceptable levels beyond.
- 267.9 Maintains the rural village character while providing a compact and consolidated urban form.
- I consider that the proposal will give effect to the NPS-UD and give effect to the CRPS and achieve consistency with the District Plan (except for those directive provisions regarding urban growth which are resolved by Policy 8 of the NPS-UD).
- Overall, I consider that the proposal is the most appropriate way of achieving the purpose of the Act, and that the purpose of the Act is achieved.
- 270 On the basis of the views expressed above, I consider the PC31 should be approved.

Dated: 7 July 2023

Timothy Carr Walsh

ATTACHMENT A: DEVELOPMENT CAPACITY ANALYSIS



28 June 2023

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MEMO

TO:

Tim Carter, Rolleston Industrial Developments Ltd

FROM: Tim Walsh, Senior Planner

PROJECT REF: 021034

PRIVATE PLAN CHANGE PC31 OHOKA NDA AND HOUSING CAPACITY ANALYSIS

Executive Summary

- The following memo provides a high-level review and assessment of the residential capacity provided for within the New Development Areas (NDAs) identified in the Proposed Waimakariri District Plan ('Proposed Plan'), as estimated by the Waimakariri District Council ('Council'). This review describes the spatial extent (area) of the NDAs and provides a non-exhaustive list of areas within the NDAs which cannot be practicably developed and/or are subject to exclusions in the Canterbury Regional Policy Statement ('CRPS') definition of 'net density' which mean that the land will not and cannot provide additional household capacity.
- 2. The objective of the review is to confirm the accuracy of the underlying assumption that the proposed NDAs will provide between 5,000 and 7,000 new dwellings, based on a total developable area of approximately 450 hectares and minimum net densities of approximately 12hh/ha (5400 dwellings) to 15 hh/ha (6750 dwellings).
- 3. In summary, the review concludes that developable area within the NDAs will be considerably less than 450 hectares, once adjustments are made to allow for:
 - i. Land parcels identified/included in error that cannot practicably be developed for housing (e.g. existing stormwater facilities, or Lamb & Hayward Funeral Directors);
 - ii. Land parcels that are to be excluded from the calculation of 'net density' (e.g. community facilities and education facilities);
 - iii. Stormwater reserves, noting our expectation that 12.5% of developable land may be required for this purpose;
 - iv. The extent of the Kaiapoi NDA within the high flood hazard area (60.6 hectares) where there is no certainty of new residential development; and,
 - v. The extent of the Kaiapoi NDA within or beyond the air noise contours (89.06 hectares) where there is uncertainty in respect of new residential development.



- 4. Based on our assessment we consider the developable area of the NDAs may be as low as 270 hectares which would equate to 2697 fewer households than the 6750 envisaged by council based on 15hh/ha.
- 5. A summary of our assessment is set out in the table below and further detail is included at **Appendix 6** to this memo.

	NDA Area (ha)	12hh/ha	∆ from 5400	15hh/ha	∆ from 6750
WDC assessment	450	5400	0	6750	0
As measured	455.19	5462	62	6828	78
Less exclusions, errors, & 12.5% stormwater	347.47	4170	-1230	5212	-1538
Less exclusions, errors, 12.5% stormwater & Kaiapoi HFHA	294.44	3533	-1867	4417	-2333
Less exclusions, errors, 12.5% stormwater & Kaiapoi noise contours	270.17	3242	-2158	4053	-2697

- 6. On this basis, we strongly disagree with the Council's view that the proposed NDAs will provide between 5,000 and 7,000 new dwellings. In our view, the capacity delivered by the NDAs is unlikely to exceed 5,000 dwellings and is most likely to deliver between 3,200 and 4,400 dwellings.
- 7. Given the disparity between our calculations and those of Council, and the limited review we have undertaken within the time available, we have limited confidence in the Council's assessment of household capacity.



Scope

- 8. The following memo provides a high-level review and assessment of the residential capacity provided for within the NDAs identified in the Proposed Plan, as estimated by Council.
- NDAs are located on the east and west sides of the existing Rangiora urban area and on the eastern side of the existing Kaiapoi urban area. NDAs are intended to provide additional greenfield residential capacity for the district.
- 10. The spatial extent of the NDAs generally aligns with the Future Development Areas (FDAs) identified in 'Map A' in the CRPS. Figures comparing the location and extent of the FDAs in the CRPS with the NDAs in the Proposed Plan are included in **Appendix 1** to this memo.
- 11. It is also noted that the NDAs have corresponding Outline Development Plans ('ODPs') in the Proposed Plan which are included in Appendix 2 and which we address as relevant below.

Methodology

- 12. In reviewing the Council's estimate of residential capacity within the NDA's, the assessment which follows:
 - i. Describes the spatial extent (area) of the NDAs;
 - ii. Examines the definition of 'net density' in the CRPS, noting the target net density of 12-15 households per hectare (hh/ha) provides a basis for then estimating the household capacity within NDAs; and,
 - iii. Examines the extent to which land within the NDA cannot be practicably developed and/or is subject to exclusions or other factors which mean that the land will not and cannot provide additional household capacity¹.
- 13. Given the time available, our identification of areas within the NDAs that should not be included in the assessment of household capacity is <u>non-exhaustive</u>. The areas listed below that we consider should be excluded represent those areas that are obvious or that we have readily identified in the course of our review.

¹ The spatial analysis and data collection has largely been undertaken by Chris Sexton at Inovo Projects, with our input and direction.

novogroup.co.nz



Context

Future Development Areas

14. A key component of the feasible development capacity estimates for the district are the FDAs as identified in Map A of the CRPS. Within the district, these provide for 450 hectares of future (greenfield) urban expansion east and west of Rangiora (345 hectares) and west of Kaiapoi (105 hectares)².

New Development Areas

- 15. The FDAs are reflected in the Proposed Plan and are referred to as New Development Areas. The FDAs are not presently zoned within the operative Waimakariri District Plan. The Proposed Plan provides a mechanism for the NDAs to be zoned for residential use subject to certain criteria.
- 16. These NDAs cover a total area of approximately 450 hectares, comprising 235 hectares east of Rangiora, 111 hectares west of Rangiora and 104 hectares west of Kaiapoi as referred to in the s32 reports for the Proposed Plan³. However, using Council's GIS, we have measured an area of 455.19 hectares (346.35 hectares for Rangiora and 108.84 hectares for Kaiapoi), which is slightly larger than the 450 hectare area stated in the CRPS and Proposed Plan.
- 17. These areas are described and shown in the Proposed Plan s32 report as follows:

East Rangiora (split into North East Rangiora and South East Rangiora) - situated between Coldstream Road, Golf Links Road, Northbrook Road and Boys Road. This is the largest of the three development areas at 235ha in size and is held in multiple ownership. The area is currently used for primary production. The majority of Rangiora East is identified for future housing, with a smaller amount of land identified for a local centre. This development area is close to Rangiora High School, Mainpower Oval and Council's multi-use sports facility.

West Rangiora – situated between Brick Kiln Road, Oxford Road, Lehmans Road, Johns Road and Fernside Road. This development area is 111ha in size and is held in multiple ownership. The area is currently used for primary production. It has been identified as suitable for a mix of General Residential zoning (standalone dwellings) and Medium Density Residential zoning (medium-density dwellings).

Kaiapoi – situated to the east of Sovereign Palms residential development. This development areas is 104ha in size and is held in multiple ownership. The area is currently used for primary production. It has been identified as suitable for a mix of General Residential zoning (standalone dwellings) and Medium Density Residential zoning (medium-density dwellings).

-

² S32 evaluation of Change 1 to Chapter 6 of the CRPS.

³ As stated in the PWDP s32 report for Development Areas – Rangiora and Kaiapoi, pages 4-5.





Kaiapoi Development Area



18. The Proposed Plan s32 report for Development Areas – Rangiora and Kaiapoi states that the proposed NDAs 'will provide between 5,000 and 7,000 new dwellings'⁴. This estimated capacity reflects minimum net densities of approximately 12hh/ha (5400 dwellings) to 15 hh/ha (6750 dwellings) across the 450ha extent of the NDAs.

'Net Density'

- 19. Given that the estimated household capacity of the NDAs is based on a target minimum net density of 12-15 households per hectare (per CRPS policies 6.3.7 and 6.3.12), a fundamental starting point is the definition of 'net density' and the areas of land that are to be included or excluded from this calculation.
- 20. The definition of 'Net density' in the CRPS states:

'Net density is the number of lots or household units per hectare (whichever is the greater). The area (ha includes land for:

- Residential purposes, including all open space and on-site parking associated with residential development;
- Local roads and roading corridors, including pedestrian and cycle ways, but excluding State Highways and major arterial roads;
- Local (neighbourhood) reserves

The area (ha) excludes land that is:

- Stormwater retention and treatment areas;
- Geotechnically constrained (such as land subject to subsidence or inundation);

.

⁴ PWDP s32 report for Development Areas – Rangiora and Kaiapoi, page 4.



- Set aside to protect significant ecological, cultural, historic heritage or landscape values;
- Set aside for esplanade reserves or access strips that form part of larger regional or sub-regional reserve network;
- For local community services and retail facilities, or for schools, hospitals or other district, regional or sub-regional facilities'.
- 21. The inclusions and exclusions specified in the definition above provide the basis for establishing the net land area available for residential development ('net area'), which is considered in further detail below.

Outline Development Plans

- 22. The NDAs have corresponding ODPs in the Proposed Plan that subdivision and development of the land is required to comply with. These ODPs are included at **Appendix 2**.
- 23. With reference to the definition of 'net density' above, it is relevant to note that the ODPs indicate the following features that are to be excluded:
 - i. Open Space Reserves (excluded where it is not a local/neighbourhood reserve);
 - ii. Stormwater Reserves;
 - iii. Flow Paths;
 - iv. Green Links associated with Flow Paths (excluded on the basis that these are set aside to protect significant ecological values and/or are for esplanade reserves or access strips that form part of larger regional or sub-regional reserve network);
 - v. Green Link & Cycle Ways associated with Flow Paths (excluded as for Green Links above);
 - vi. Areas for Commercial/Business activities; and,
 - vii. Areas for Education / Community activities.
- 24. Examples of these areas to be excluded are highlighted on the ODPs in Appendix 2.
- 25. Of note, the ODPs do not directly correspond to the NDAs. For example, the ODP for Kaiapoi includes commercial areas (purple) and parks (green) that are outside the NDAs, but excludes existing stormwater reserves that are within the NDAs (see Figure 1 below). On this basis, it is important to recognise that the ODPs provide an indicative 'outline' of development, rather than a detailed indication of development outcomes. For this reason, these areas are analysed in more detail in the following sections of this memo.

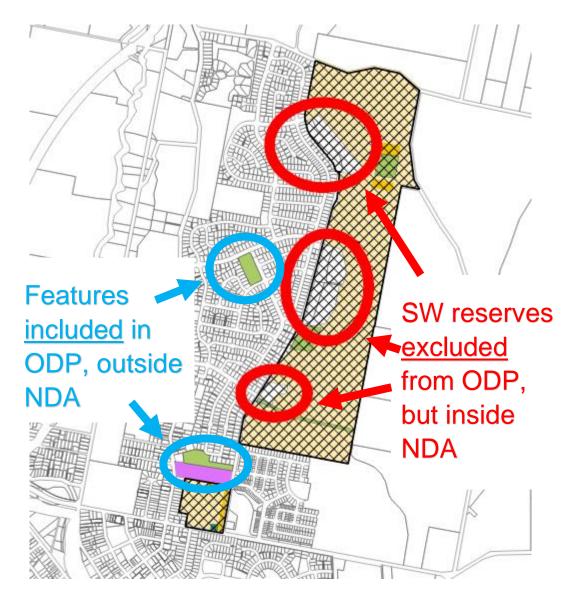


Figure 1: Kaiapoi NDA and ODP overlay

Gross Area of New Development Areas

- 26. As described above, Council states that the NDAs cover a total area of approximately 450 hectares, comprising 235 hectares east of Rangiora, 111 hectares west of Rangiora and 104 hectares west of Kaiapoi.
- 27. Based on our own assessment of property parcels within the identified NDAs and using Council's GIS, we have measured an area of 455.19 hectares, which is slightly larger than the 450ha area stated in the CRPS and Proposed Plan.
- 28. Noting the above, our assessment below adopts a starting point of **455.19 hectares**. We refer to this as a 'gross' area for the NDAs, noting that not all of this land can be developed.

Exclusions in New Development Areas

- 29. Having established the gross area and spatial extent of the NDAs, we have reviewed these areas for any obvious parcels of land that should not be identified as contributing additional development capacity on the basis of existing land uses and / or excluded per the CRPS definition of 'net density', which specifically requires the exclusion of:
 - i. State Highways and major arterial roads;
 - ii. Reserves, other than local (neighbourhood) reserves;
 - iii. Stormwater retention and treatment areas;
 - iv. Geotechnically constrained lad (such as land subject to subsidence or inundation);
 - v. Land set aside to protect significant ecological, cultural, historic heritage or landscape values:
 - vi. Land set aside for esplanade reserves or access strips that form part of larger regional or sub-regional reserve network;
 - vii. Land for local community services and retail facilities, or for schools, hospitals or other district, regional or sub-regional facilities.
- 30. **Appendix 3** to this letter includes figures and tables identifying the land parcels and land areas that have been erroneously identified in the NDAs as contributing additional development capacity, or should be excluded in accordance with the definition of 'net density'.
- 31. Notable examples of such errors include the inclusion of the Rangiora High School property (32.1344 hectares) and the existing Lamb and Hayward funeral home (1.6818 hectares) in northeast Rangiora and the 14.7 hectares of existing stormwater management for Kaiapoi.
- 32. We stress that the list attached provides only a selection of parcels we have identified that would clearly be excluded by the definition of 'net density'. We would expect that further interrogation of the NDAs, the ODPs, and ultimately subdivision plans would reveal additional areas to be excluded.
- 33. The areas within the NDAs that need to be excluded are summarised in the table below:

NDA	Total NDA Area (Ha)	Areas to Exclude (Ha)	Remaining Developable Area (Ha)
West Rangiora Development Area	111.09	0.60	110.49
East Rangiora Development Area	235.26	42.79	192.47



East Kaiapoi Development Area	108.84	14.7	94.15
TOTAL	455.19	58.09	397.10

34. Based on these errors and exclusions, the NDA area would be reduced by **58.09 hectares**, which is equivalent to approximately 696- 871 households (at 12-15 hh/ha). This would result in a revised NDA area of 397.10 hectares.

Exclusion of new stormwater retention and treatment areas

- 35. New stormwater retention and treatment areas required for areas of new development will occupy a significant area of land within the NDAs, and this must be excluded from the calculation of net density noting the land will not be available to provide additional development capacity.
- 36. While some of the land required for this purpose is accounted for in ODPs or within the figures and tables in **Appendix 3**, we consider that this may not reflect the full extent of land required for stormwater management purposes. For example, we note that existing stormwater facilities are required for existing, developed areas of the urban environment and additional stormwater management will be required for areas of new development.
- 37. As there are no development or engineering plans for the NDAs to base any specific stormwater calculations on, we have sought advice from Tim McLeod, a Senior Civil Engineer at Inovo Projects.
- 38. Mr McLeod recommends that an average percentage land area requirement of 12.5% be allowed for new Stormwater Management Areas ('SMAs') to treat and detain stormwater within the NDAs.
- 39. In Mr McLeod's view this is a conservative, but not unrealistic figure to use, noting the generally 'wet' ground conditions in Rangiora and Kaiapoi and his experience with other land development projects.
- 40. Adopting a conservative reduction of 12.5% of the revised 397.10 hectare NDA area would equate to **49.64 hectares** (equivalent to approximately 596- 745 households at 12-15 hh/ha). This would further reduce the total area of the NDAs to 347.47 hectares⁵.

⁵ Being 455.19ha gross, adjusted to 397.10 ha accounting for exclusions, further adjusted to 347.47 ha, being 397.10 ha less 12.5%.

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Exclusion of Kaiapoi NDA in High Hazard Area

- 41. As shown in **Appendix 4**, a large proportion of the Kaiapoi NDA is within a high hazard area.
- 42. CRPS Policy 11.3.1 seeks <u>avoidance</u> of new subdivision, use and development of land in high hazard areas. To the extent that there are qualifiers within that policy, they do not apply to the Kaiapoi NDA. For the Proposed Plan, Policy NH-P2 is proposed (in the s42a report) to be amended to align with CRPS Policy 11.3.1.
- 43. On this basis, we consider that reliance cannot be placed on additional capacity being provided within the Kaiapoi NDA where it is subject to the high flood hazard area overlay.
- 44. That being the case, the Kaiapoi area would be reduced by a further **60.6 hectares**, which is equivalent to approximately 727- 909 households (at 12-15 hh/ha). This reduction is from the 108.8 hectare 'gross' area of the Kaiapoi NDA, meaning that with the removal of excluded land (14.7 hectares), the residual 94.1 hectares would reduce by 60.6 hectares to 33.55 hectares of developable land. A further 12.5% (4.2 hectares) of this area for stormwater management would then need to be allowed for, leaving 29.3 hectares of developable land within the Kaiapoi NDA. In total, this would drop the overall developable area for the NDAs to 294.44 hectares.

Exclusion of extended Air Noise Contours over Kaiapoi NDA

- 45. In addition to high hazard area constraints to new development, the majority of the Kaiapoi NDA is subject to the revised air noise contours for Christchurch International Airport (see Appendix 5).
- 46. The CRPS requires that strategic infrastructure (including the Christchurch International Airport) is not compromised by urban growth and intensification. In respect of aircraft noise, Policy 6.3.5(4) seeks the avoidance of: 'noise sensitive activities within the 50dBA Ldn airport noise contour for Christchurch International Airport, unless the activity is within an existing residentially zoned urban area, residential greenfield area identified for Kaiapoi, or residential greenfield priority area identified in Map A...'.
- 47. In accordance with the CRPS, the air noise contours were remodelled by Christchurch International Airport Limited ('CIAL') and the technical modelling was subsequently peer reviewed by an independent panel of experts appointed by Environment Canterbury. That independent panel provided its initial agreement in respect of the updated air noise contours in May 2023. A final report is expected in July 2023. The updated Outer Envelope air noise contour is shown in Appendix 5.
- 48. It is highly likely that the updated air noise contours (May 2023) will be confirmed in Environment Canterbury's final report due July at which point the CRPS avoid policy will be engaged with respect to those updated contours. This will ultimately flow through to district plans across Canterbury. CIAL have been actively advocating for the updated contour to be given effect to when considering development proposals (in district plan reviews, plan change and resource consent applications).



- 49. There is uncertainty as to whether the land within the Kaiapoi NDA that is subject to the air noise contour will be rezoned and developed in a manner that will provide additional capacity.
- 50. **Appendix 5** includes a plan showing the extent of the air noise contours over the Kaiapoi NDA. With reference to this plan, only **5.08 hectares** of the NDA is not within or beyond⁶ the air noise contour overlay in a location that could provide residential development capacity.

Summary and Conclusions

51. In summary:

- i. The NDAs cover a total area of approximately 450 hectares. Based on our own assessment of property parcels within the identified NDAs and using Council's GIS, we have measured an area of 455.19 hectares which we have assumed for the purposes of this assessment.
- ii. Accounting for erroneously identified parcels or those requiring exclusion per the CRPS definition of 'net density', the NDA area should be reduced by 58.09 hectares, which is equivalent to approximately 700- 870 households. This would result in a revised NDA area of 397.10 hectares.
- iii. Accounting for an allowance of 12.5% of the land area for stormwater management, the revised NDA area of 397.10 hectares should be further reduced by **49.64 hectares**, which is equivalent to approximately 595- 744 households. This would result in a further revised NDA area of **347.47 hectares**.
- iv. Accounting for the **60.6 hectare** extent of the high flood hazard area overlay across the Kaiapoi NDA (equivalent to approximately 727- 909 households), this revised total would reduce further to **294.44 hectares**.
- v. Alternatively, if the **89.06 hectare** extent of land within or beyond the air noise contours across the Kaiapoi NDA were deducted (equivalent to approximately 1068- 1335 households), the revised total would be **270.17 hectares.**
- 52. The exclusions above are conservative and are not exhaustive. We would expect that further interrogation of the NDAs, the ODPs, and ultimately subdivision plans would reveal additional areas to be excluded.

⁶ Note – a 2.29ha area of land to the southeast of the air noise contour is beyond the air noise

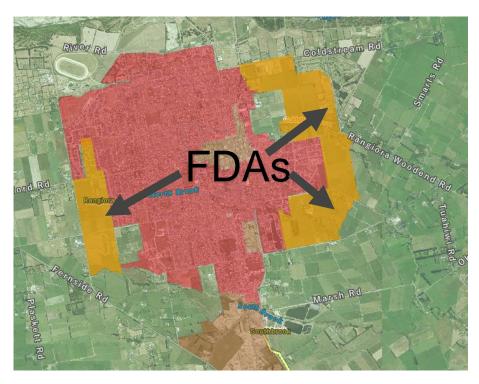
contour. However, this land is detached from the existing urban area (and is otherwise subject to the high flood hazard area overlay), so is not considered a credible area for residential development and has been excluded on this basis.



- 53. In total, we have identified that approximately 185 hectares of the 455 hectare area of the NDAs may not be developable. Applying a density ratio of 12 or 15 hh/ha to a developable area of 270.17 hectare in total for the NDAs would equate to 3,242 4,053 households, respectively. As such, we disagree with the Council's view that the proposed NDAs will provide between 5,000 and 7,000 new dwellings, based on 450 hectares and a density of approximately 12hh/ha (5400 dwellings) to 15 hh/ha (6750 dwellings).
- 54. Given the disparity between our calculations and those of Council, and the limited review we have undertaken within the time available, we have limited confidence in the Council's assessment of household capacity.



Appendix1: CRPS FDA and Proposed Plan NDA



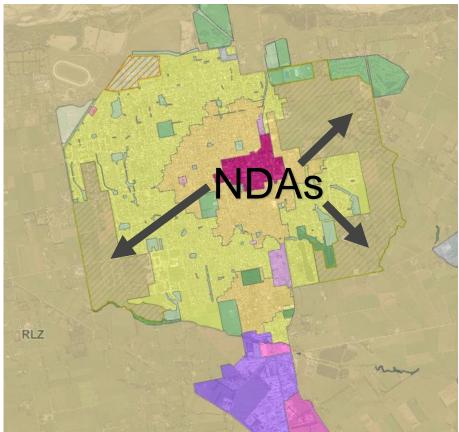
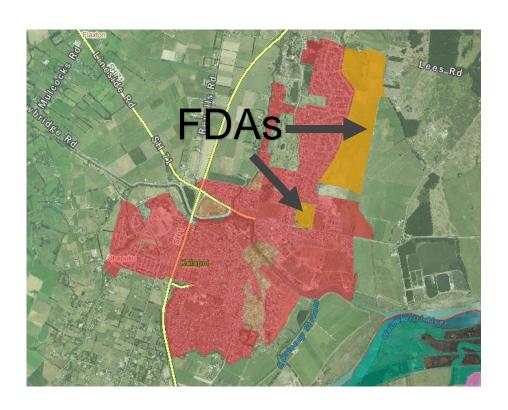


Figure 1: Rangiora FDAs (top) and NDAs (bottom)



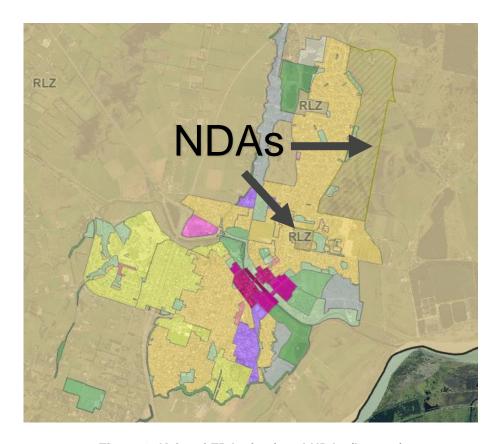
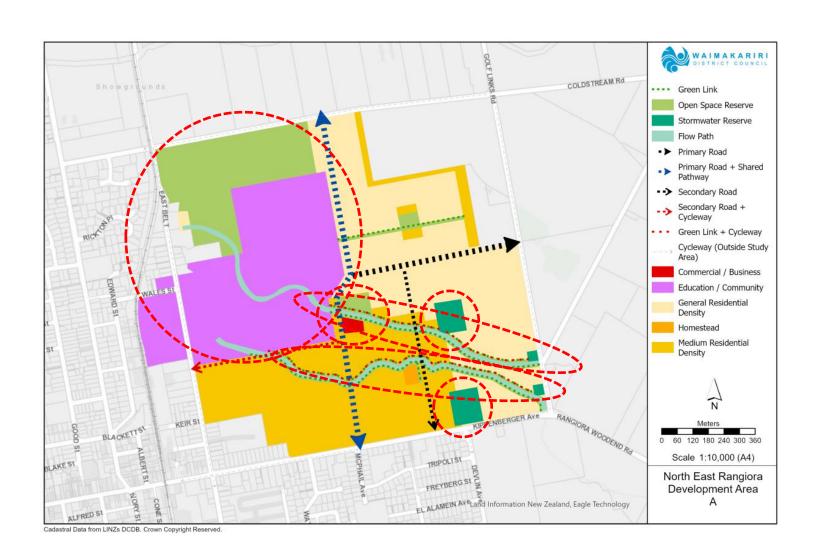


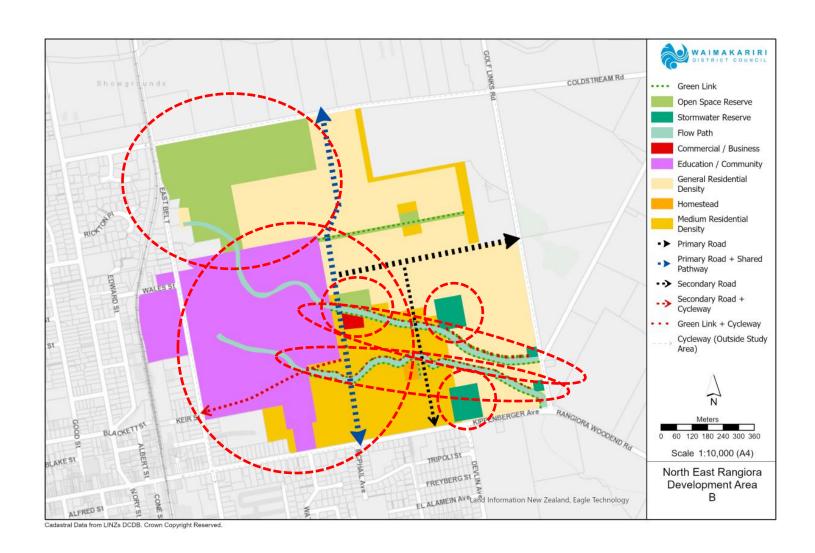
Figure 2: Kaiapoi FDAs (top) and NDAs (bottom)



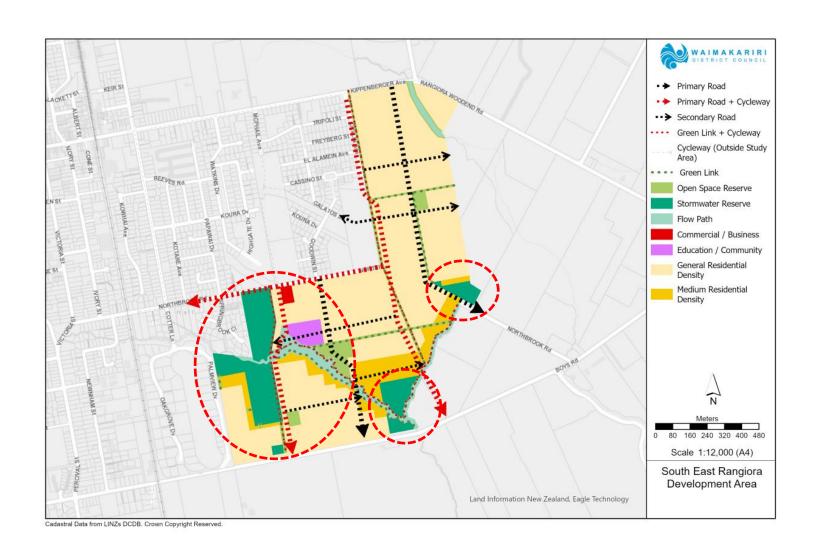
Appendix 2: Proposed Plan ODPs for NDAs

(Note: Areas to be excluded per the 'net density' definition outlined in red dash)

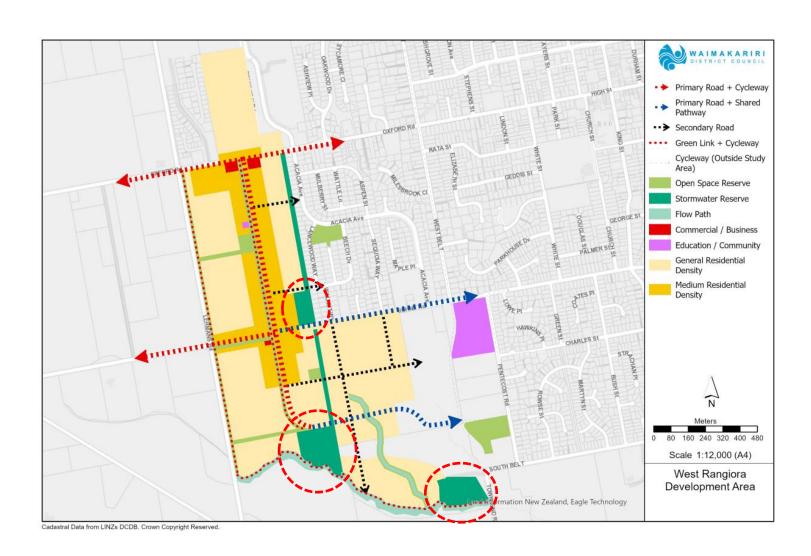




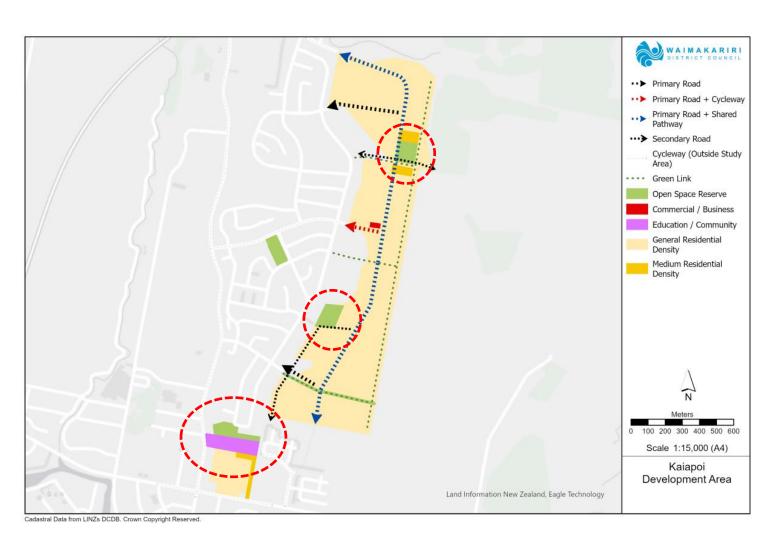














Attachment 3. Areas to be Excluded in NDAs

(Note: Areas to be excluded per the 'net density' definition in the CRPS)



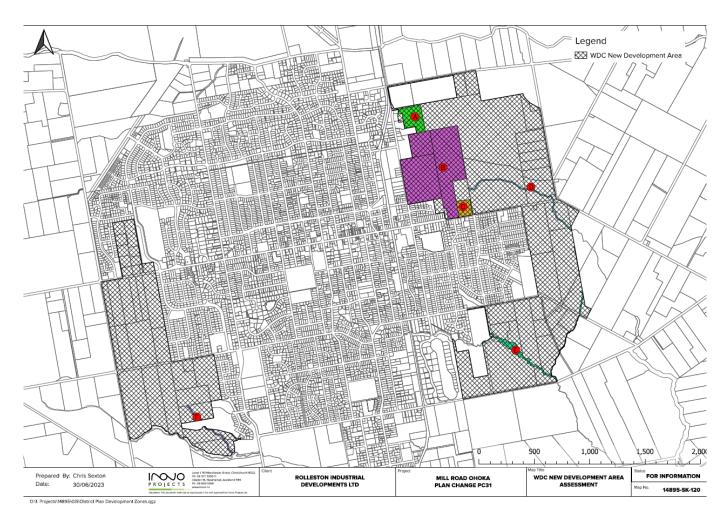


Figure 1: Rangiora NDAs, with erroneous parcels identified and labelled (see Table 1 for detail)



Table 1. Rangiora NDA Key Areas to be Excluded – refer to Figure 1.

ID	Description	Area (m²)	Area (Ha)
А	Future WDC Recreation Reserve	38865	3.89
В	Rangiora High School	329809	32.98
С	Funeral Directors	18019	1.80
D	Cam River Esplanade - 5m wide from each bank	12543	1.25
E	North Brook & Recreation Reserves	28656	2.87
F	Spring fed river to the South Brook	6033	0.60
	Total	433925	43.39



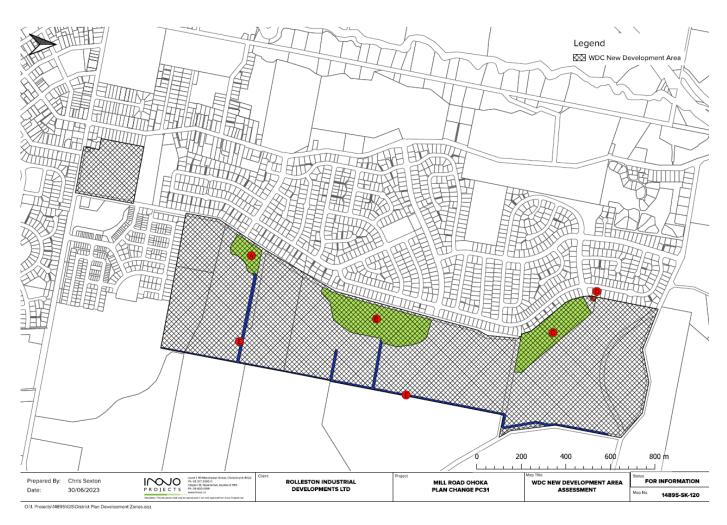


Figure 2: Kaiapoi NDAs, with erroneous parcels identified and labelled (see Table 2 for detail)

Table 2. Kaiapoi FDA's Areas to be Excluded – refer to Figure 2

ID	Description	Area (Ha)
A	Existing stormwater management area	1.3414
В	Existing stormwater management area	6.3985
С	Existing stormwater management area	4.4345
D	Existing sewer pump station	0.0511
E	Waterways	2.4699
	Total	14.6954



Attachment 4: Kaiapoi NDA in High Hazard Area

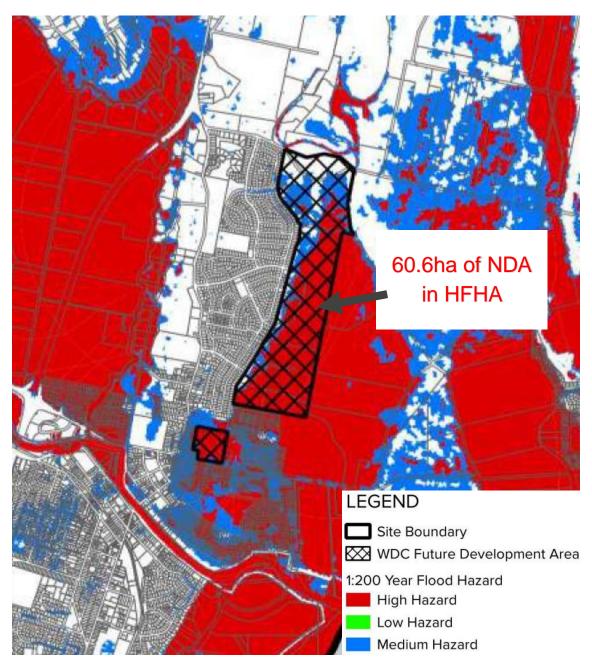


Figure 1: Kaiapoi NDAs and High Flood Hazard Area



Attachment 5: Kaiapoi NDA Subject to Air Noise Contours

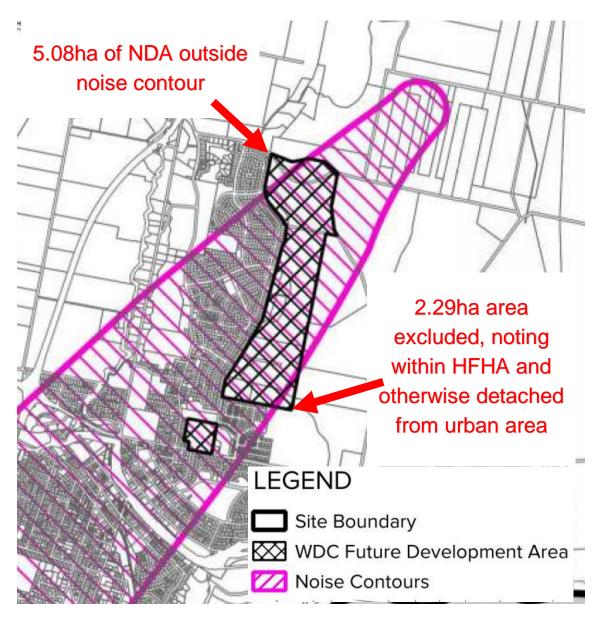


Figure 1: Kaiapoi NDAs and Air Noise Contours



Appendix 6: Summary spreadsheet of NDA Capacity



[Insert spreadsheet]

Analysis of NDA area and capacity

Table 1. Context:

ha	450	Gross area of NDAs per WDC:
hł	5400	Household capacity of 450ha @ 12hh/ha:
hł	6750	Household capacity of 450ha @ 15hh/ha:
ha	455.19	Gross area of NDAs as measured:
hl	5462	Household capacity of 455.19ha @ 12hh/ha:
hł	6823	Household capacity of 455.19ha @ 15hh/ha:
_		

Table 2. Gross, less exclusions, less 12.5% stormwater:

WDC Proposed District Plan New Development Area	WDC NDA Area (Ha) (as measured)	Areas to Exclude (Ha) (see Tables 6-7)	Remaining Developable Area (Ha)
West Rangiora Development Area	111.09	0.60	110.49
East Rangiora Development Area	235.26	42.79	192.47
East Kaiapoi Development Area	108.84	14.70	94.15
Totals	455.19	58.09	397.10

Less 12.5% for sw mgmt -49.64

Capacity:

 Developable area allowing for sw mgmt
 347.47
 4170
 5212

 Difference vs. 455.19ha gross area
 -107.72
 -1293
 -1616

<u>Table 3. Gross, less Kaiapoi HFHA, less exclusions, less 12.5% stormwater (not accounting for noise contours):</u>

WDC Proposed District Plan New Development Area	WIDE NIDA Area (Halifas I	Areas to Exclude (Ha) (see Tables 6-7)	Remaining Developable Area (Ha)	
West Rangiora Development Area	111.09	0.60	110.49	
East Rangiora Development Area	235.26	42.79	192.47	
East Kaiapoi Development Area	108.84	14.70	33.55	(Note: 33.55 = 108.84 - 14.70 - 60.6 HFH area)
Totals	455.19	58.09	336.50	(also see Table 4 if noise contour constraint applies

Less 12.5% for sw mgmt -42.06

 Capacity:

 12hh/ha
 15hh/ha

 Developable area allowing for sw mgmt
 294.44
 3533
 4417

 Difference vs. 455.19ha gross area
 -160.75
 -1929
 -2411

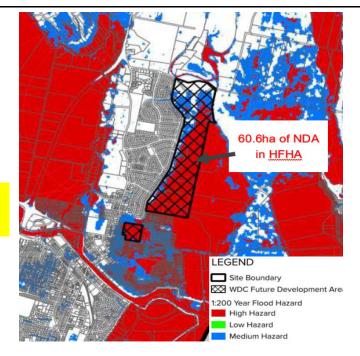


Table 4. Gross, less land in/beyond Kaiapoi Air Noise Contours, less exclusions, less 12.5% stormwater (not accounting for HFHA)

Totals	455.19	58.09	308.04	
Development Area	100.64	14.70	5.08	(IV
East Kaiapoi	108.84	14.70	5.08	/NI
East Rangiora Development Area	235.26	42.79	192.47	
West Rangiora Development Area	111.09	0.60	110.49	
WDC Proposed District Plan New Development Area	WDC NDA Area (Ha) (as measured)	Areas to Exclude (Ha) (see Tables 6-7)	Remaining Developable Area (Ha)	

Note: 5.08 = 108.84 - 14.7 - 86.77 in contour -2.29ha beyond contour) (also see Table 3 if HFHA constraint applies)

270.17 3242 4053

Less 12.5% for sw mgmt* -37.86 Capacity: 12hh/ha 15hh/ha Developable area allowing for sw mgmt Difference vs. 455.19ha gross area -185.02 -2220 -2775

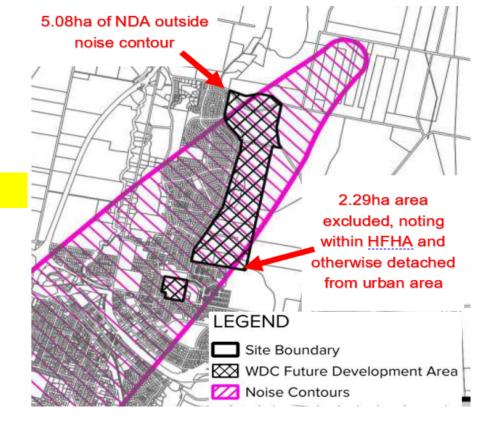


Table 5. Summary:

			Difference from		Difference from
	NDA Area (ha)	12hh/ha	5400*	15hh/ha	6750*
WDC assessment	450	5400	0	6750	0
As measured	455.19	5462	62	6828	78
Less exclusions & 12.5% stormwater	347.47	4170	-1230	5212	-1538
Less exclusions, 12.5% stormwater & Kaiapoi HFHA (excl noise contours)	294.44	3533	-1867	4417	-2333
Less exclusions, 12.5% stormwater & Kaiapoi noise contours (excl HFHA)	270.17	3242	-2158	4053	-2697

^{*}Note- the difference in capacity has been benchmarked against Council's initial estimate of capacity (5400-6750)

^{*}Note- sw mgmt added back for East Kaiapoi, noting this could be established within the air noise contours

Table 6. Rangiora NDAs areas to exclude*:

ID	Description	Area (m²)	Area (Ha)
Α	Future WDC Recreation Reserve	38865	3.89
В	Rangiora High School	329809	32.98
С	Funeral Directors	18019	1.8
D	Cam River Esplanade - 5m wide from each bank	12543	1.25
E	North Brook & Recreation Reserves	28656	2.87
F	Spring fed river to the South Brook	6033	0.6
	Total	433925	43.39

^{*} Exclusions per CRPS definition of 'net density'

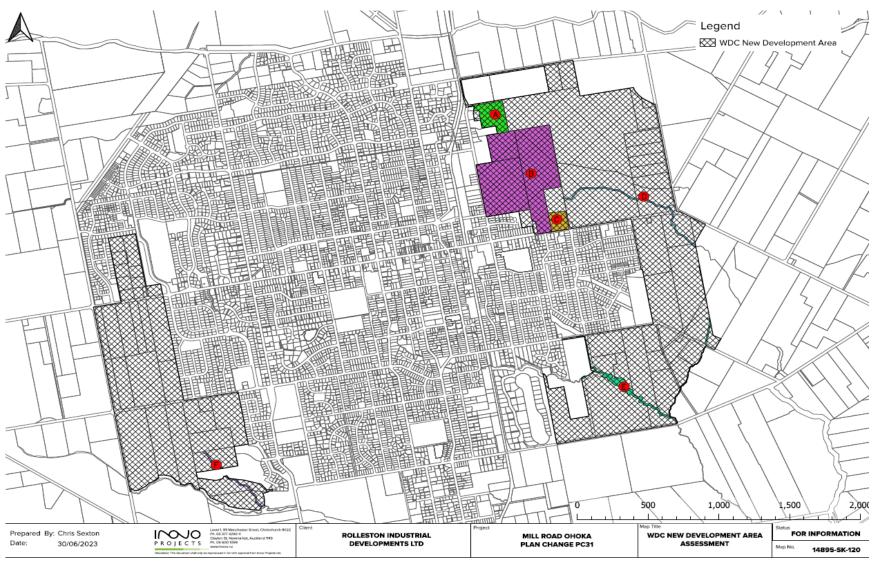
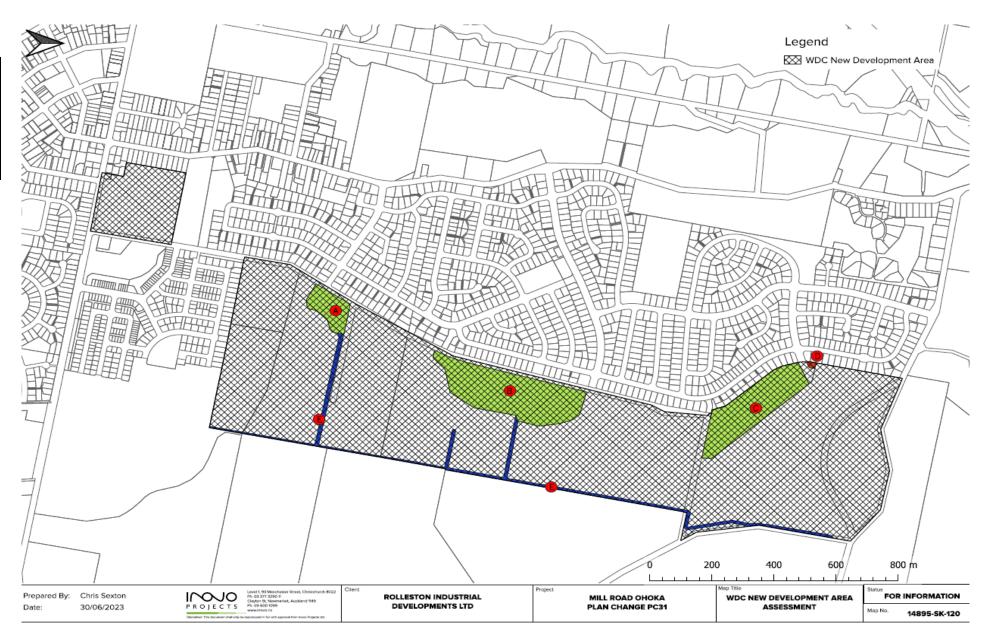


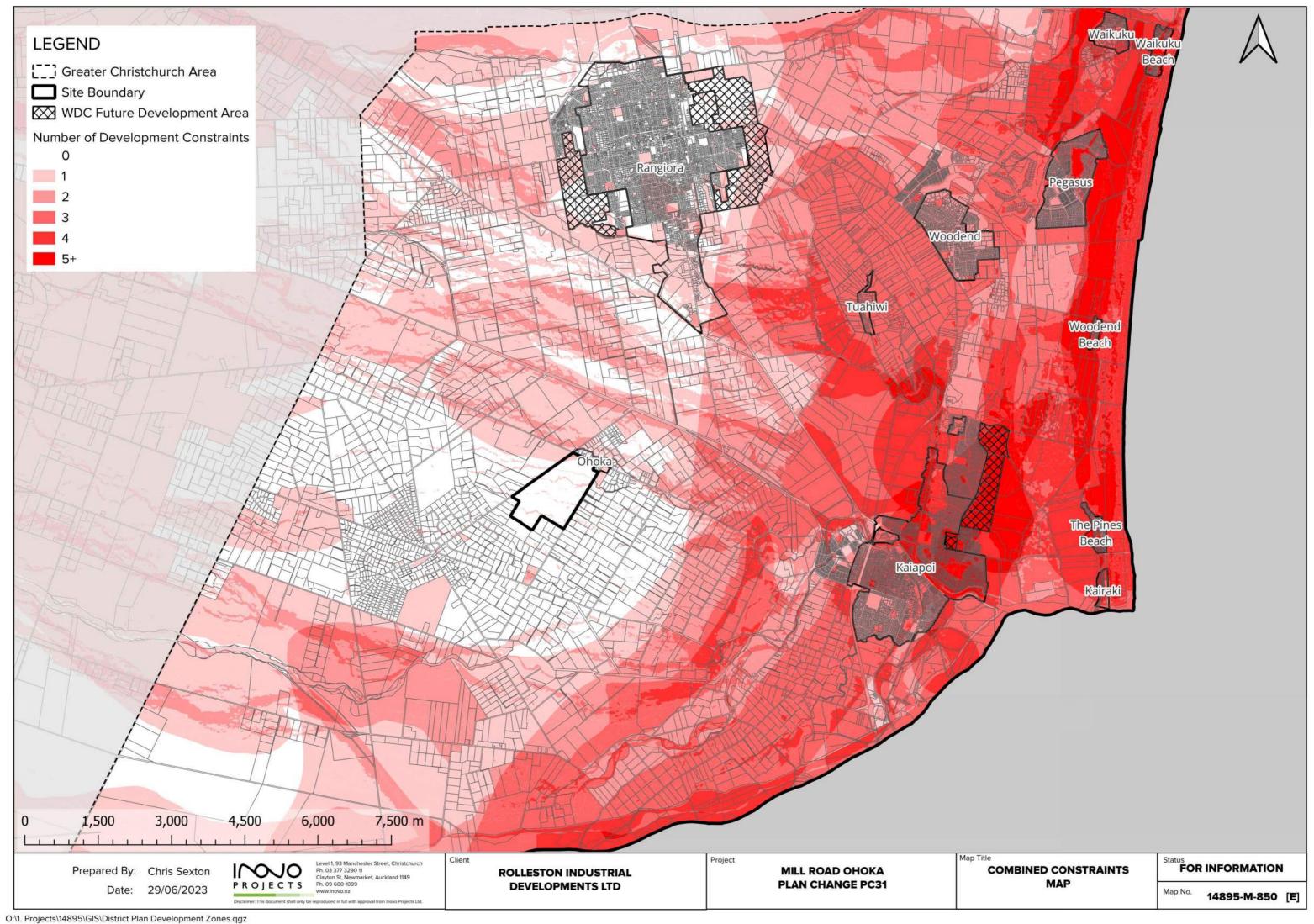
Table 7. Kaiapoi NDAs areas to exclude*:

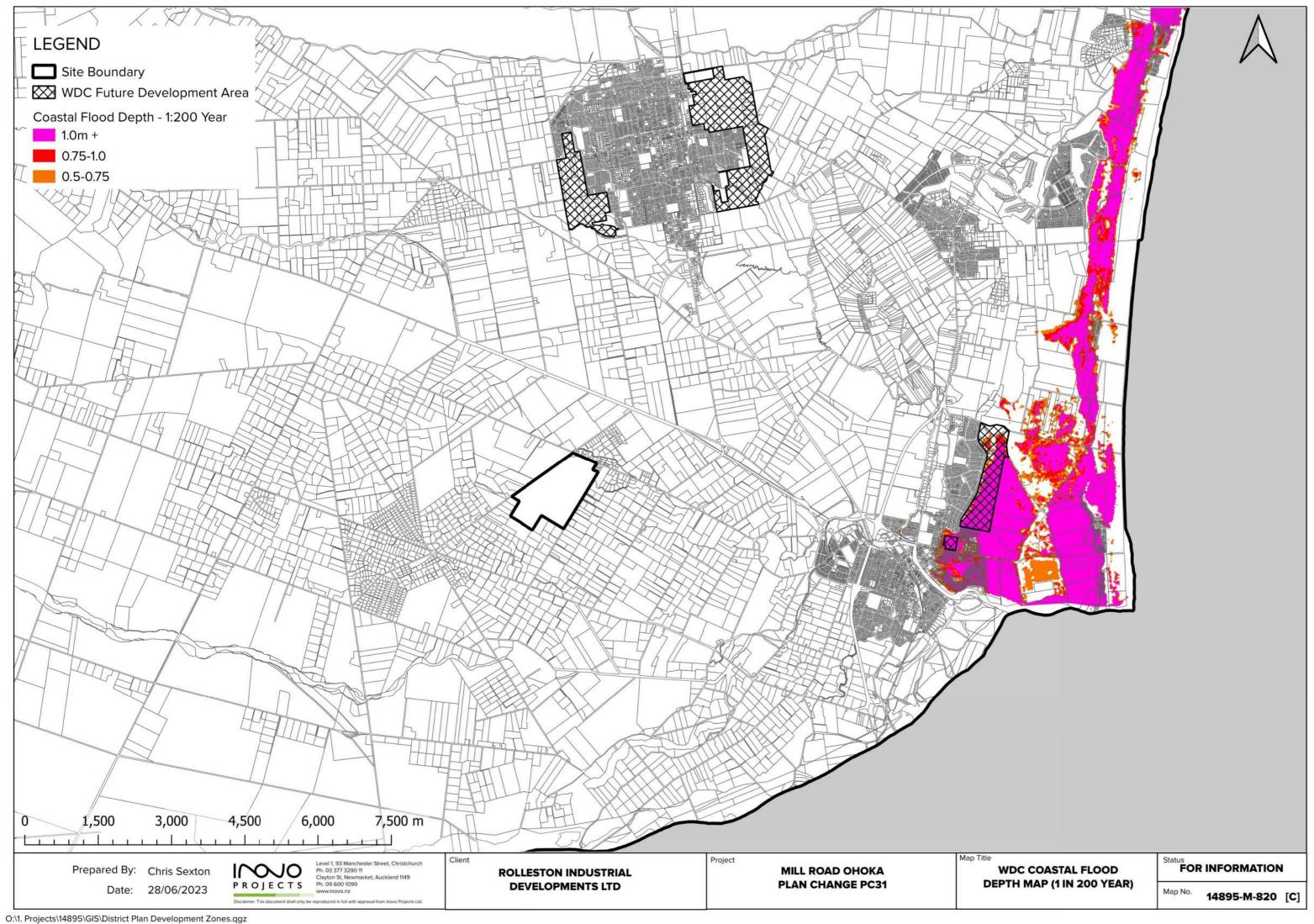
ID	Description	Area (Ha)
Α	Existing stormwater management area	1.3414
В	Existing stormwater management area	6.3985
С	Existing stormwater management area	4.4345
D	Existing sewer pump station	0.0511
E	Waterways	2.4699
	Total	14.6954

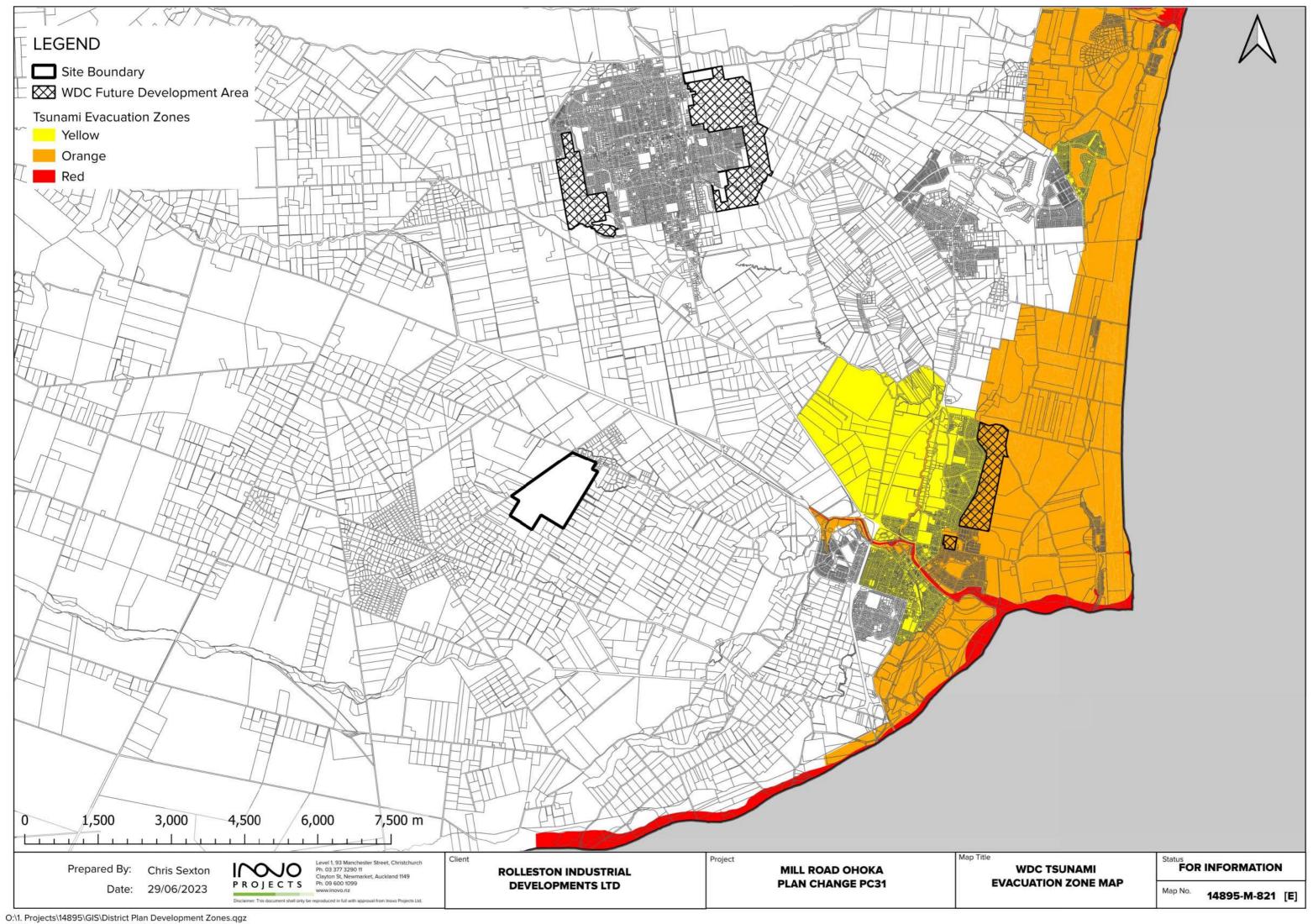
^{*} Exclusions per CRPS definition of 'net density'

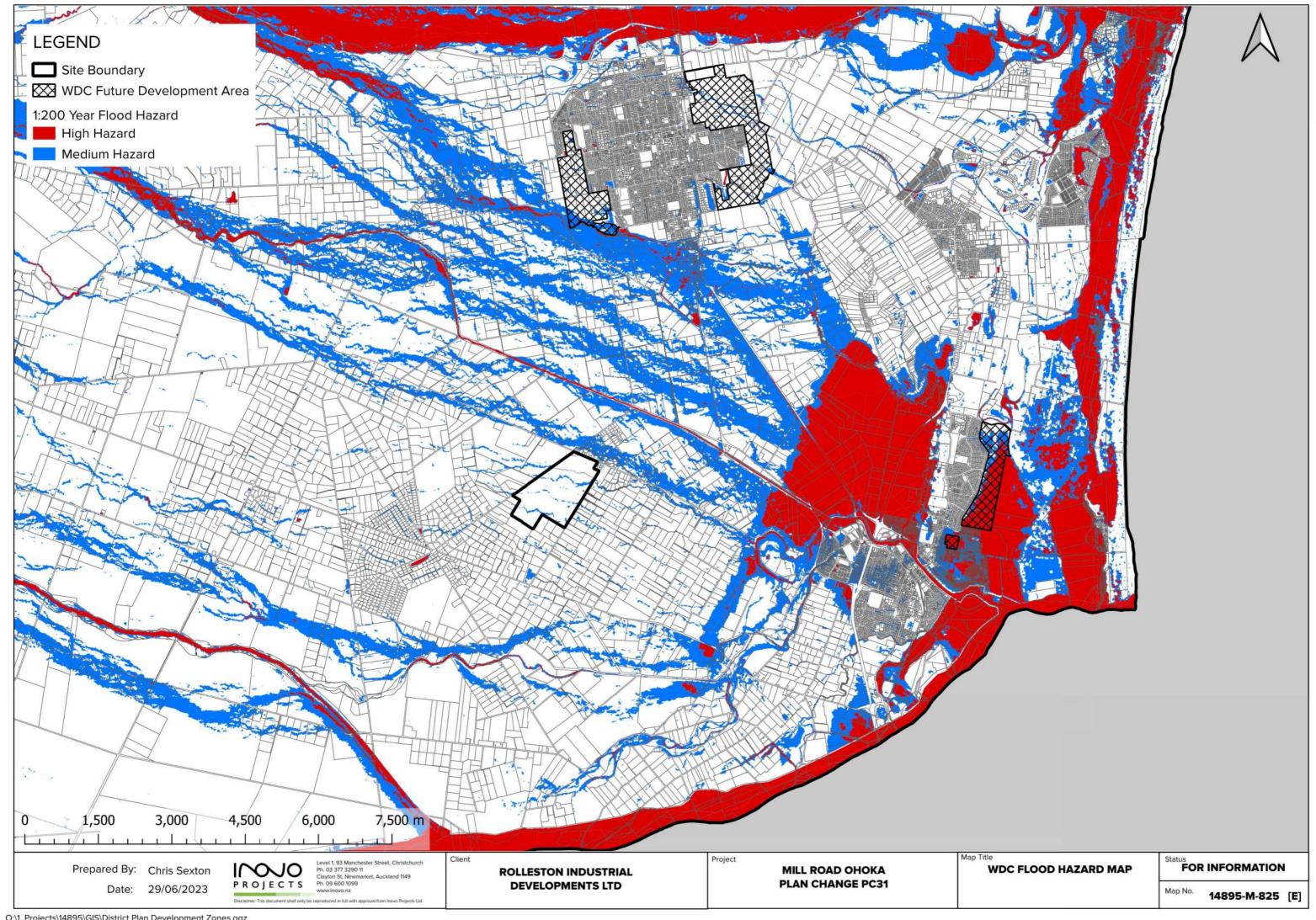


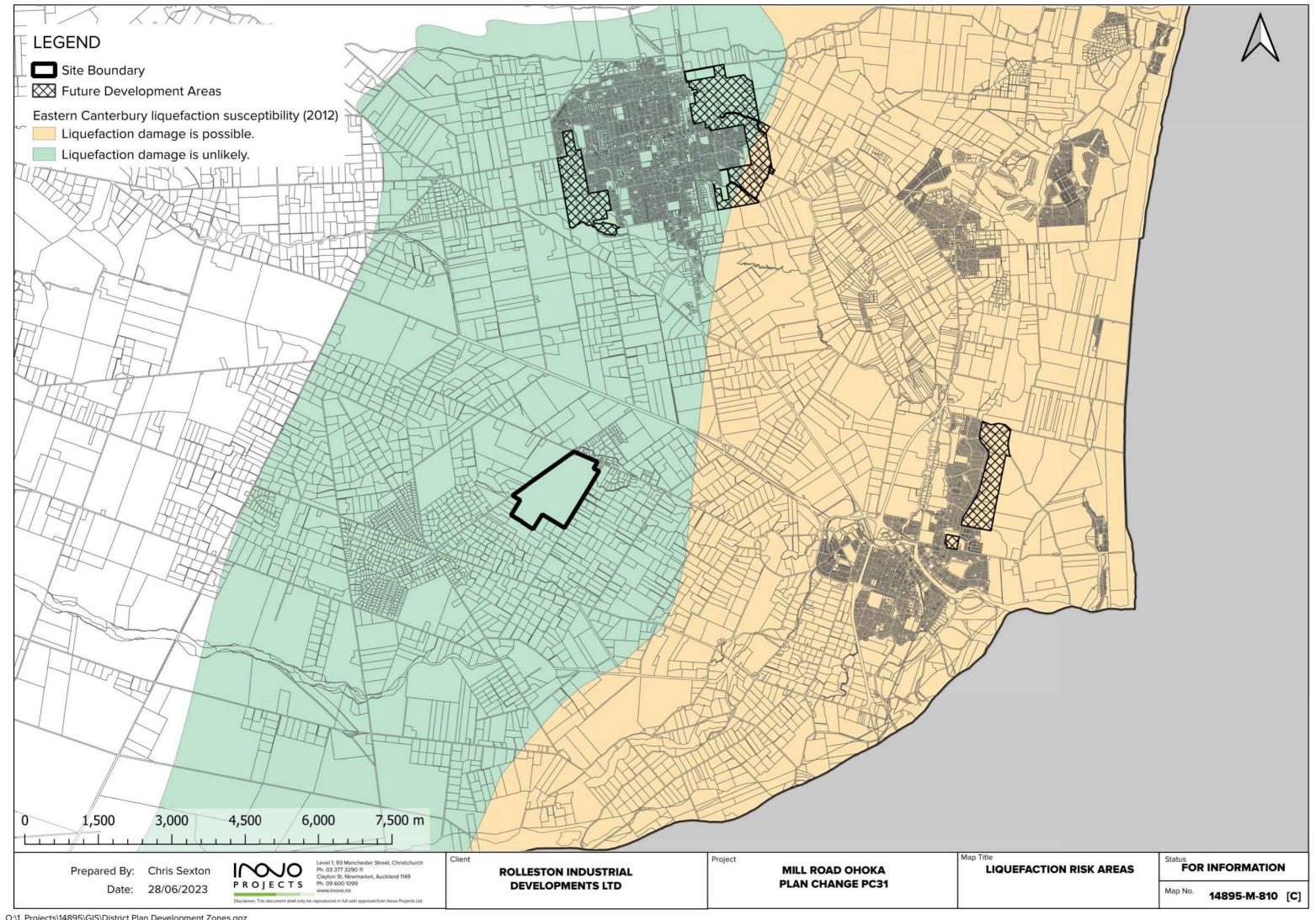
ATTACHMENT B: CONSTRAINTS MAPS

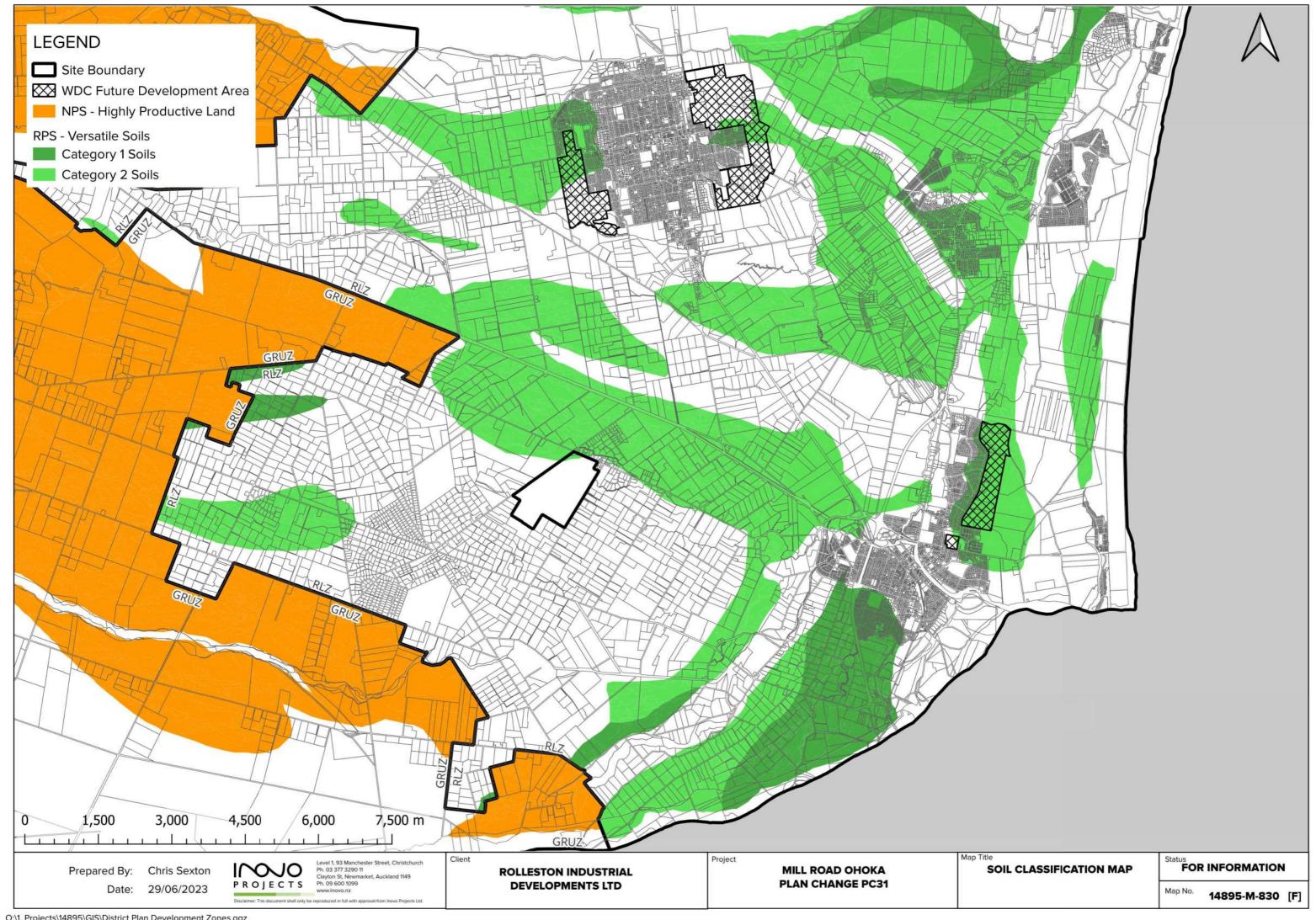


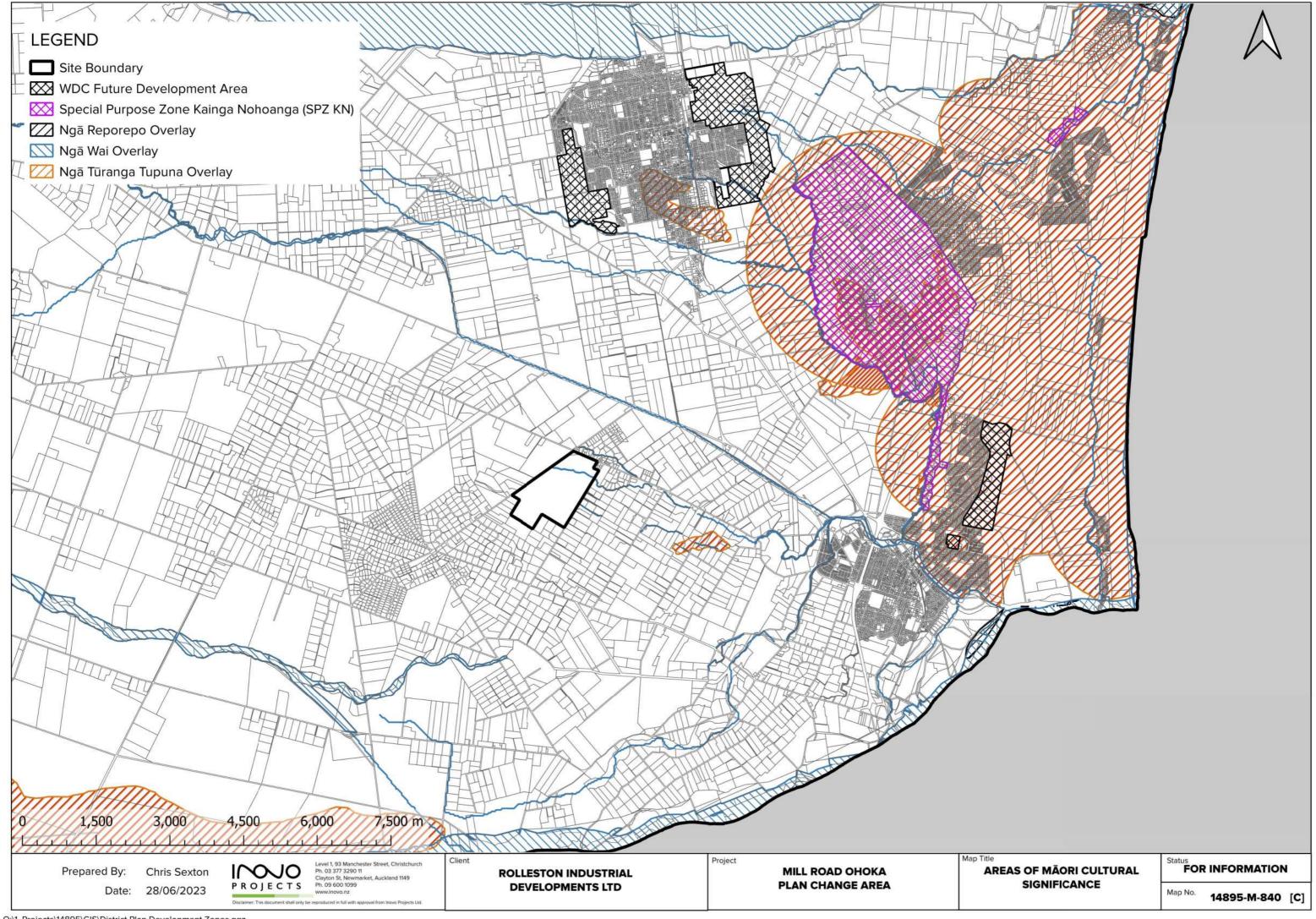


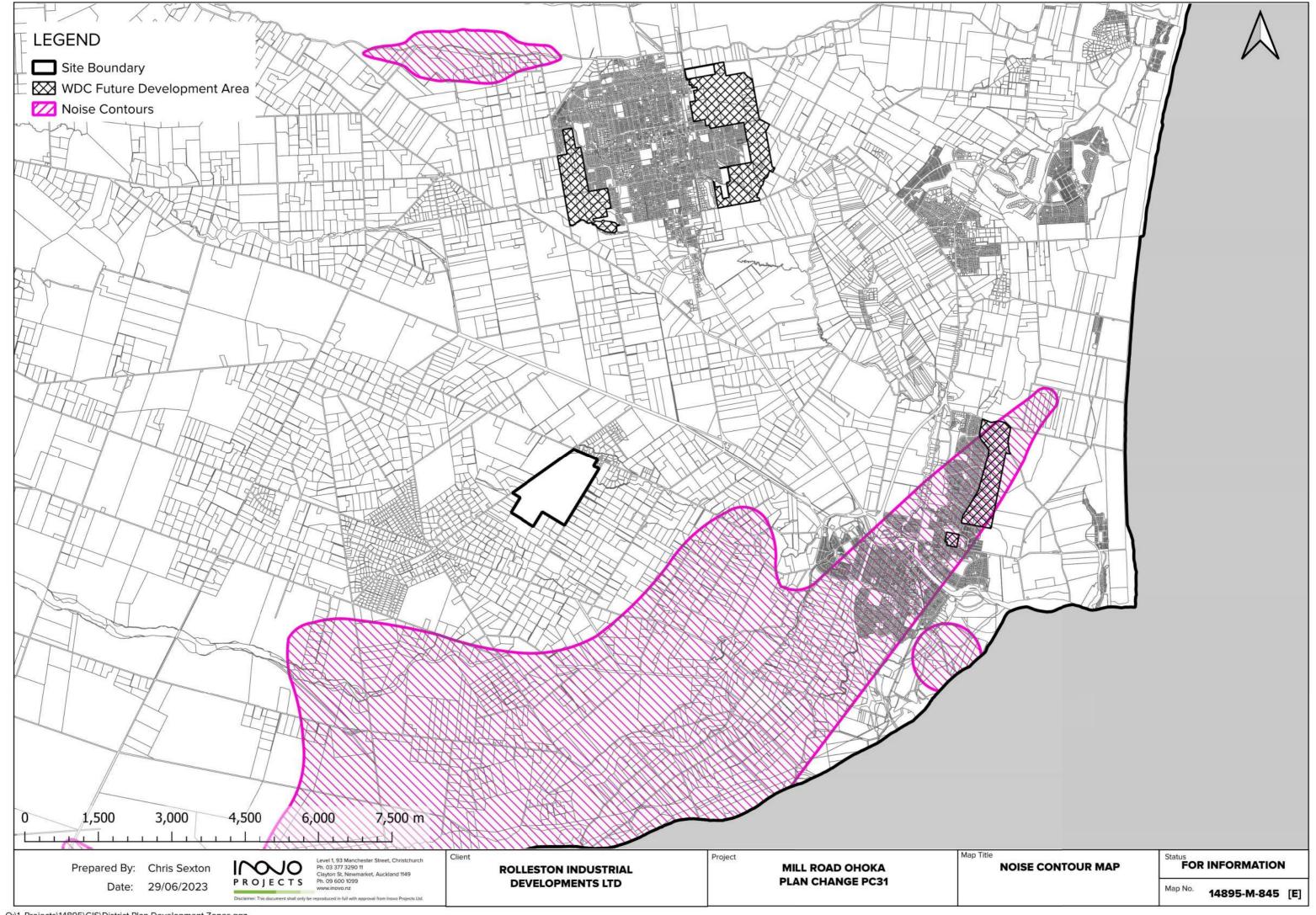


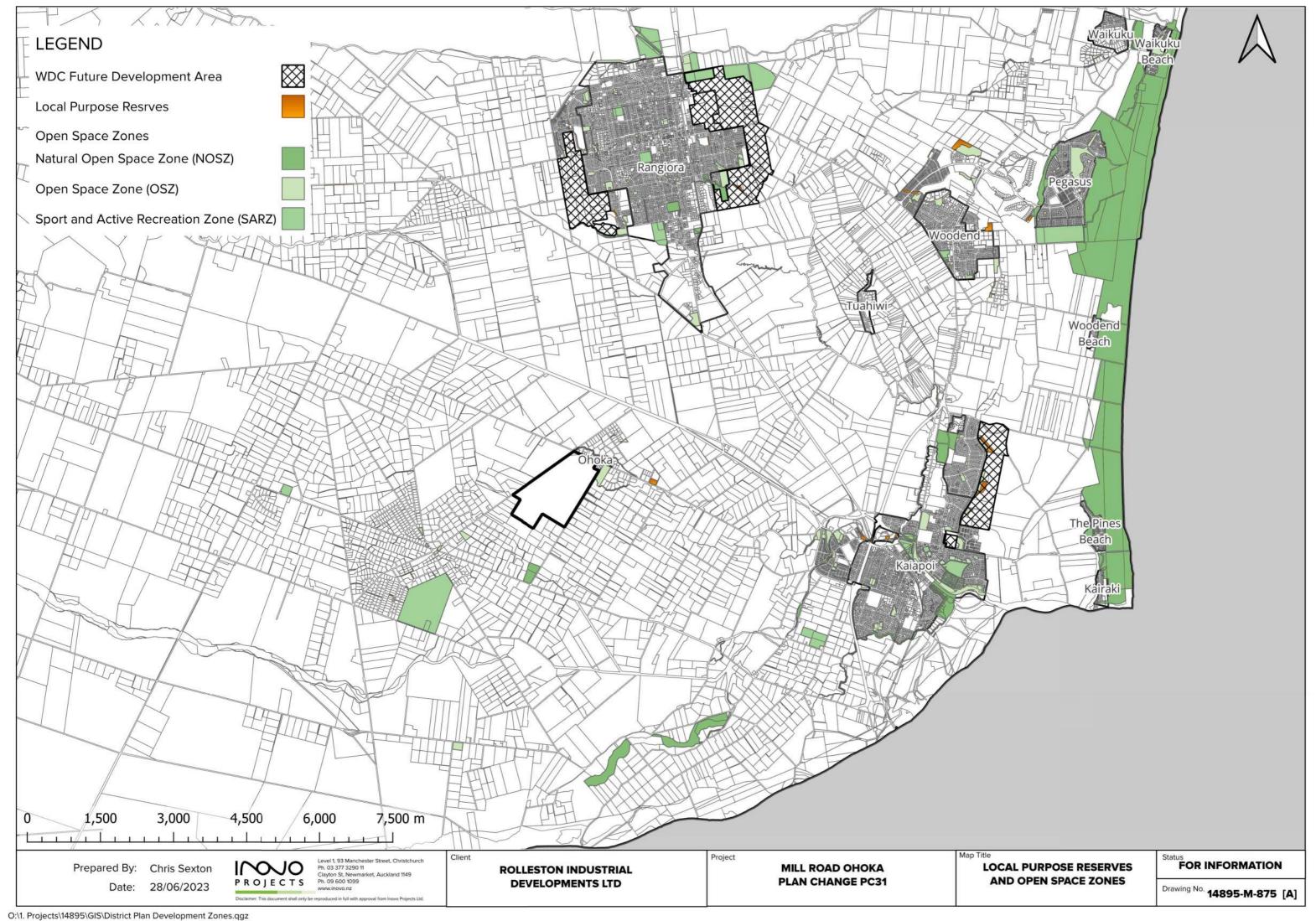












ATTACHMENT C: AMENDED PLAN PROVISIONS

The plan change request proposes the following changes to the Waimakariri District Plan:

- 1. To amend the Waimakariri District Plan Planning Maps, by rezoning the site to Residential 2, Residential 4A and Business 4.
- 2. To amend Waimakariri District Plan Planning Maps, by inserting the Outline Development Plan included attached in **Attachment E**.
- 3. To amend the District Plan provisions as below (changes underlined or struck through, with changes made in response to the section 42a report emphasised in red text.
- 4. Any other consequential amendments including but not limited to renumbering of clauses.

Please note that all references to the originally proposed Residential 3 and 8 Zones have been removed.

Objectives and Policy

Definitions

INSERT NEW DEFINITION

Educational facilities

means land or buildings used for teaching or training by childcare services, schools, or tertiary education services, including any ancillary activities.

16 Business Zones

AMEND POLICY

Policy 16.1.1.1

...

Reason

...

The Business 4 Zone provides for activities existing at 20 June 1998, and limited future expansion of retail and business activities with similar effects on the southwestern corner of Williams and Carew Streets in Kaiapoi (District Plan Maps 104 and 105), and the Lilybrook Shops on the corner of Percival Street and Johns Road, Rangiora (District Plan Maps 113 and 117). This zoning recognises the commercial zoning that these sites enjoyed under the Transitional District Plan. The Business 4 Zone also provides for a local community business zones at West Kaiapoi (District Plan Map 104), and within the Mandeville North settlement (District Plan Map 182) and at Ohoka (District Planning Map 185).

INSERT NEW POLICY

Policy 16.1.1.12

<u>Provide for retail and business activities in the Ōhoka Business 4 Zone, in a way that:</u>

- a) <u>maintains the characteristics of the Ōhoka settlement as set out in Policy 18.1.1.9;</u>
- b) provides for limited business activities to provide for day-to-day convenience needs of the local community, is designed to achieve high quality urban design principles and a high standard of visual character and amenity; and
- c) <u>limits retail distribution effects on the nearby Business 4 Zone at Mandeville North.</u>

AMEND

Principal Reasons For Adopting Objectives, Policies and Methods 16.1.4

• • •

The Business 4 Zone enables site-specific areas of existing retail and business activity located outside of the Kaiapoi and Rangiora town centres. The effects of activities are known for those already developed, including those impacting on adjoining residential areas. Activity and development standards constrain the scale and nature of possible future effects. A specific policy and rule framework exists for the Business 4 Zone in West Kaiapoi, and the Business 4 Zone in Mandeville North and Ōhoka to ensure suitable scale and characteristics of any development within the zone and with regard to Mandeville North to recognise community desires.

18. Constraints on Subdivision and Development

AMEND POLICY

Policy 18.1.1.9

Ensure that any growth and development of Ōhoka settlement occurs in a manner that:

- maintains a rural village character comprising a predominantly low density living environment with dwellings in generous settings;
- achieves, as far as practicable, a consolidated urban form generally centred around and close to the existing Ōhoka settlement;
- encourages connectivity with the existing village and community facilities;
- achieves quality urban form and function;
- allows opportunities for a rural outlook;
- encourages the retention and establishment of large-scale tree plantings and the use of rural style roads and fencing;

- limits the potential for reverse sensitivity effects;
- avoids significant flood hazards;
- promotes the efficient and cost-effective provision and operation of infrastructure;
- recognises the low lying nature of the area and the need to provide for stormwater drainage; and
- ensures that any residential development occurring in the Ōhoka settlement does not increase the flood risk within Ōhoka and adjoining areas.

Explanation

Growth of \bar{O} hoka settlement, defined by the Residential 2, 3, 4A and 4B zones, is constrained by the need to ensure that any future residential development maintains its rural village character. This is most likely to be achieved by consolidating growth around or adjacent to the existing urban area and ensuring that development complements the existing low density rural residential environment. A consolidated growth pattern will provide opportunities for establishing connections with the existing settlement and community facilities, including the \bar{O} hoka School. This form of development is also anticipated to promote the efficient provision of reticulated water and wastewater infrastructure and reduce the potential for reverse sensitivity effects on surrounding rural activities.

It is important that any further rural residential development occurs in a way, and to an extent, that does not overwhelm the special semi-rural character of the settlement.

It is expected that the type of growth and development required to maintain the rural village character of \bar{O} hoka is that of low density living, where <u>larger allotments</u> dwellings are situated within generous settings comprising an average lot size of between 0.5-1.0 hectare <u>surround smaller properties which form a walkable community around the village centre</u>. The presence of rural <u>village</u> attributes within <u>such the</u> low density residential areas, including the retention and establishment of large-scale tree plantings and the use of rural style roads and fencing, will also assist in maintaining the settlement's rural themed characteristics. This type of settlement pattern is anticipated to generate a high level of amenity, including opportunities for a range of lifestyle living activities and an aesthetic rural outlook. This can be achieved either by enabling views into open green space or by the establishment of treed vegetation areas within or adjoining properties.

Another development constraint for growth at Ōhoka is the need to avoid land subject to significant flood risk. It will therefore be necessary for any proposed development to demonstrate that the land is suitable for its intended use and is not subject to undue risk of inundation. This includes the impact of cumulative effects on the area's drainage systems.

INSERT POLICY

Policy 18.1.1.9A

<u>Provide for activities that support the Ōhoka settlement including educational facilities, a retirement village and a polo field and associated facilities.</u>

Rules

27 Natural Hazards

INSERT RULE

27.1.1.34 Within the Outline Development Plan area shown on District Plan Map 185, any dwellinghouse shall have a floor level of 400mm above the 0.5% Annual Exceedance Probability flood event, and 500mm above 0.5% Annual Exceedance Probability flood event in areas subject to flooding of determined by the following calculation where 'd' is depth is in meters and 'v' is velocity is in metres per second: 3.1-d*10 > v.

30 Utilities and Traffic Management

PROPOSED AMENDMENTS TO RULES 30.1.1.9 AND 30.1.6.1.1. REMOVED.

31. Health, Safety and Wellbeing

Dwellinghouses

PROPOSED AMENDMENTS TO RULES 31.1.1.4 AND 31.1.1.6 REMOVED.

INSERT RULE

31.1.1.9A In the Residential 2 and 4A Zones, Ōhoka shown on District Plan Map 185, dwellinghouses shall be in accordance with any relevant Council approved design quidelines.

Structure Coverage

AMEND RULE

31.1.1.10 The structure coverage of the net area of any site shall not exceed:

...

n) 55% in Business 4 Zone in Ōhoka as shown on the District Plan Map 185

Setbacks For Structures

AMEND TABLE

Table 31.1: Minimum Structure Setback Requirements

Location	A setback is required from	Setback depth (minimum)
Rural Zone	Any road boundary	20m for any dwellinghouse 10m for any structure other than a dwellinghouse
	Any internal site boundary	20m for any dwellinghouse 3m for any structure other than a dwellinghouse
	Any existing dwellinghouse on an adjoining site	10m for any structure (excluding a dwellinghouse)
Rural Zone Maori Reserve 873 cluster housing	Any road boundary, any site boundary external to the cluster, and any existing dwellinghouse on an adjoining site	15m
All Residential Zones other than the Residential 4A Zone (Wards Road, Mandeville North and Mill Road, Ōhoka), Residential 6A and 7, the Residential 4A Zone (Bradleys Road,	Any road boundary (other than a boundary to a strategic road or arterial road) or any accessway	2m
Öhoka) and the Mandeville Road – Tram Road Mandeville North Residential 4A Zone, and the Residential 4A Zone (Woodend Beach Road, Woodend) (excluding any comprehensive residential development) NOTE: See Rule 31.1.1.15	The zone boundary within Tuahiwi at the northern, eastern and southern extent as shown on District Plan Map 176B	15m

Comprehensive residential development within Residential 1, 2 and 6 Zones	The road boundary	2 m for any dwellinghouse 4 m for any garage where the vehicle entrance is generally at a right angle to the road. 5.5 m for a garage where the vehicle entrance faces the road, and the garage must not be located closer to the road boundary than the front façade of the associated dwellinghouse
Residential 4A Zone (Bradleys Road, Ōhoka) shown on District Plan Map 169 and the Mandeville Road – Tram Road Mandeville North Residential 4A Zone shown on District Plan Map 182	Any road boundary Any internal site boundary	15m 5m
Residential 4A Zone (Wards Road, Mandeville North) shown on District Plan Map 162, Residential 4A Zone (Mill Road, Ōhoka) shown on District Plan Map 160 and Woodend Beach Road shown on District Plan Map 171)	Any boundary from a local road	10m
Residential 4A Zone (Mill Road, Ōhoka) shown on District Plan Map 160	Mill Road boundary Any internal site boundary	15m 5m
All Residential Zones, other than Residential 6, 6A and 7, where the site fronts onto a strategic or arterial road	The road boundary of any strategic or arterial road	6m, or 4m for any garage where the vehicle entrance is generally at right angles to the road

Residential 5 Zone	Any site boundary adjoining an accessway for allotments 15, 16, 17, 27, 28 and 29 shown on District Plan Map 140	4m
Residential 6A Zone (other than areas identified on District Plan Map 142 as excluded from the setback requirement)	Any internal site boundary, other than boundaries with accessways	2m for any structure other than garages and structures above garages
Residential 6A	Boundaries with accessways	10m for any structure other than a garage and structures above garages NOTE: Refer to Figure 31.1 and Rule 31.1.1.16
Residential 7	Any road boundary (other than to an arterial road) or any accessway	2m for any dwellinghouse within Area A 3m for any dwellinghouse within Areas B and C
		5.5m for any structure other than a dwellinghouse within Areas A, B and C
	The road boundary of any arterial road	6m
	Any internal site boundary	2m
	Any site boundary of 309 Island Road being Lot 1 DP 62400	20m
Business 2, 3 and 6 Zones, where the site fronts onto a strategic or arterial road	The road boundary of any strategic or arterial road	10m
Business 2, 3, 5 and 6 Zones, and Woodend Business 1 Zone where the site is adjacent to a Residential Zone or a Rural Zone boundary	The zone boundary, or where the zone boundary is a road, the road boundary	10m

Business 4: Williams/Carew Zone and Business 4: Mandeville North	Any road boundary	6m
	Any internal site boundary	5m
Business 5 Zone at Kaiapoi	The zone boundary, the Smith Street boundary, and any site boundary adjoining a reserve	10m
All Zones	All 110kV overhead high voltage electrical lines as shown on District Plan Maps	32 metres either side of the centreline
	All 220kV and 350kV overhead high voltage electrical lines as shown on District Plan Maps where the span length is less than 375 metres	32 metres either side of the centreline
	All 220kV overhead high voltage electrical lines as shown on District Plan Maps where the span length is 375 metres or greater	37 metres either side of the centreline
	All 350kV overhead high voltage electrical lines as shown on the District Plan Maps where the span length is greater than 375 metres	39 metres either side of the centreline
Residential 4A Zone (Ōhoka) shown on District Plan Map 185	Any road boundary Any internal site boundary	<u>10m</u> <u>5m</u>

Business 4 (Ōhoka) shown on District Plan Map 185	Any residential zone	<u>3m</u>

Structure Height

PROPOSED AMENDMENTS TO RULE 31.1.1.24 REMOVED.

AMEND RULE

31.1.1.35 Any structure in the Mandeville North Business 4 Zone <u>at</u> <u>Mandeville North or Ōhoka shall</u> not exceed a height of 8 metres.

Screening and Landscaping

AMEND RULE

31.1.1.39 Where a site within any Business Zone, other than the Business 4 – West Kaiapoi Zone and Business 4 Zone at Ōhoka, shares a boundary with any Residential Zone, the site shall be screened from the adjoining Residential Zone site(s) to a minimum height of 1.8m except where a lesser height is required in order to comply with Rule 30.6.1.24, for unobstructed sight distances.

AMEND RULE

- 31.1.1.50 Within the Residential 4A Zone, Bradleys Road, Ōhoka identified on District Plan Map 169 <u>and the Residential 4A Zone, Ōhoka identified on District Plan Map 185</u> any fences/walls within any boundary setback shall be:
- a) limited to a maximum height of 1.2m and a minimum height of 0.6m; and
- b) limited to traditional post and wire or post and rail fences, and be at least 50% open; and
- c) of a length equal to or greater than 80% of the length of the front boundary.

INSERT NEW RULE

31.1.1.50A Within the Residential 2 Zone, Ōhoka identified on District Plan Map 185, fencing/walls shall be in accordance with any relevant Council approved design guidelines.

INSERT NEW RULE

- 31.1.1.53 Within the Residential 2 and 4A zones shown on District Plan Map 185, landscaping for all residential properties (excluding retirement village activities) shall provide a minimum of:
- a) one tree within the road boundary setback for every 15 metres of road frontage (or part thereof) and;

- <u>b) one additional tree elsewhere on the property for every 400m² of site area (or part thereof);</u>
- c) all trees shall be not less than 1.5 metres high at the time of planting;
- <u>d) all trees and landscaping required by this rule shall be maintained and if</u> <u>dead, diseased or damaged, shall be replaced; and</u>
- e) for all allotments greater than 2,500m² in area, no less than 15% of the site shall be planted in native vegetation.

PROPOSED RULE 31.1.1.54 REMOVED.

31.2 Controlled Activities

PROPOSED AMENDMENT TO RULE 31.2.2 REMOVED.

PROPOSED RULE 31.2.3 REMOVED.

31.3 Discretionary Activities (Restricted)

INSERT RULE

31.3.9 A retirement village, in the Residential 2 Zone as shown on District Plan Map 185 that meets all applicable conditions for permitted activities under Rule 31.1 shall be a restricted discretionary activity.

In considering any application for a resource consent under Rule 31.3.9 the Council shall, in deciding whether to grant or refuse consent, and in deciding whether to impose conditions, restrict the exercise of discretion to the following matters:

a) Whether the development, while bringing change to existing environments, is appropriate to its context, taking into account:

i. Context and character:

The extent to which the design, including landscaping, of the village is in keeping with, or complements, the scale and character of development anticipated for the surrounding area and relevant significant natural, heritage and cultural features.

ii. Relationship to the street, public open spaces and neighbours:

Whether the village

- <u>engages with and contributes to adjacent streets and any other</u> <u>adjacent public open spaces to contribute to them being safe and</u> attractive, and
- <u>avoids unacceptable loss of privacy on adjoining residential</u> <u>properties.</u>

iii. Built form and appearance:

The extent to which the village is designed to minimise the visual bulk of the buildings and provide visual interest, and consistency with any relevant Council approved design guidelines.

iv. Access, parking and servicing:

The extent to which the village provides for good access and integration of space for parking and servicing particularly to cater for the safety of elderly, disabled or mobility-impaired persons.

v. Safety:

The extent to which the village incorporate CPTED principles to achieve a safe, secure environment.

vi. Stormwater

The adequacy of proposed stormwater management within the site.

vii. Sustainability measures

The extent to which, where practicable, incorporation of environmental efficiency measures in the design, including passive solar design principles that provide for adequate levels of internal natural light and ventilation.

Any application arising from this rule shall not be publicly notified.

INSERT NEW RULE

31.3.10 Educational facilities in the Residential 2 Zone within the educational facilities overlay as shown on District Plan Map 185 that meets all applicable conditions for permitted activities under Rule 31.1, and where no more than 250 students are enrolled shall be a restricted discretionary activity.

In considering any application for resource consent under Rule 31.3.10, the Council shall, in deciding whether to grant or refuse consent, and in deciding whether to impose conditions, restrict the exercise of discretion to the following matters:

<u>a) Whether the development, while bringing change to existing environments, is appropriate to its context, taking into account:</u>

i. Context and character:

The extent to which the design of the educational facility is in keeping with, or complements, the scale and character of development anticipated for the surrounding area and relevant significant natural, heritage and cultural features.

ii. Relationship to the street and public open spaces:

Whether the educational facilities engage with and contribute to adjacent streets, and any other adjacent public open spaces to contribute to them being safe and attractive.

iii. Built form and appearance:

The extent to which the educational facilities are designed to minimise the visual bulk of the buildings and provide visual interest.

iv. Access, parking and servicing:

The extent to which the educational facilities provide for good access and integration of space for parking and servicing.

v. Safety:

The extent to which the educational facilities incorporate CPTED principles to achieve a safe, secure environment.

vi. Stormwater

The adequacy of proposed stormwater management within the site.

vii. Sustainability measures

The extent to which, where practicable, incorporation of environmental efficiency measures in the design, including passive solar design principles that provide for adequate levels of internal natural light and ventilation.

Any application arising from this rule shall not be publicly notified.

INSERT NEW RULE

- 31.2.11 A polo field and associated facilities in the Residential 2 Zone within the polo facilities overlay as shown on District Plan Map 185 where:
- a) structures so not exceed a height of 8m, and
- b) structures are set back no less than 10m from any residential site

shall be a restricted discretionary activity.

In considering any application for resource consent under Rule 31.2.11, the Council shall, in deciding whether to grant or refuse consent, and in deciding whether to impose conditions, restrict the exercise of discretion to the following matters:

- a) Whether the development, while bringing change to existing environments, is appropriate to its context, taking into account:
- i) landscape planting consistent with the rural village character of the Ohoka settlement and to assist the integration of the proposed development within the site and neighbourhood.
- <u>ii.</u> the location and design of vehicle and pedestrian access and on-site manoeuvring.
- iii. creation of visual quality and variety through the separation of buildings and in the use of architectural design, detailing, glazing, materials, colour and landscaping.
- viii consistency with any relevant Council approved design guidelines.

viii. where practicable, incorporation of environmental efficiency measures in the design, including passive solar design principles that provide for adequate levels of internal natural light and ventilation.

ix. the proposed stormwater management within the site

Any application arising from this rule shall not be publicly notified.

INSERT RULE

31.2.12 <u>In the Residential 2 and 4A Zones, Ōhoka shown on District Plan Map 185, occupation of more than 250 dwellings shall be a restricted discretionary activity.</u>

In considering any application for resource consent under Rule 31.2.12, the Council shall, in deciding whether to grant or refuse consent, and in deciding whether to impose conditions, restrict the exercise of discretion to the effects on the safety and efficiency of the Tram Road / State Highway 1 interchange.

Any application arising from this rule shall not be publicly notified and shall be limited notified only to Waka Kotahi – New Zealand Transport Agency (absent its written approval).

31.1.4 Discretionary Activities

INSERT NEW RULE

31.4.5 A retirement village, in the Residential 2 Zone as shown on District Plan Map 185 that does not meet all applicable conditions for permitted activities under Rule 31.1 shall be a discretionary activity.

INSERT NEW RULE

31.4.6 Educational facilities in the Residential 2 Zone within the educational facilities overlay as shown on District Plan Map 185 that does not meet all applicable conditions for permitted activities under Rule 31.1, or/and where more than 250 students are enrolled shall be a discretionary activity.

INSERT NEW RULE

31.4.7 A polo field and associated facilities in the Residential 2 Zone within the polo facilities overlay as shown on District Plan Map 185 that does not meet the conditions under Rule 31.3.11 shall be a discretionary activity.

Retail Activities and Traffic Matters

31.26 Discretionary Activities

INSERT NEW RULE

31.26.4 Retail activity exceeding a total of 2,700m² Gross Floor Area within the Business 4 Zones, Ōhoka shown on District Plan Map 185 except any retail activity associated with a farmers market.

32. Subdivision

32.1.1 Standards and Terms

Allotment Areas and Dimensions

PROPOSED AMENDMENT TO TABLE REMOVED

Residential 4A Zone

AMEND RULE

32.1.1.11 The minimum area for any allotment created by subdivision in any Residential 4A Zone shall be 2500m². The average area of all allotments in any Residential 4A Zone shall not be less than 5000m² except within the Residential 4A Zone (Ōhoka) identified on District Plan Map 185 where the average area of all allotments shall not be more than 3300m². Any allotment over 1ha in area is deemed to be 1ha for the purposes of this rule.

Outline Development Plans

AMEND RULE

32.1.1.28 Subdivision within the following areas shall generally comply with the Outline Development Plan for that area.

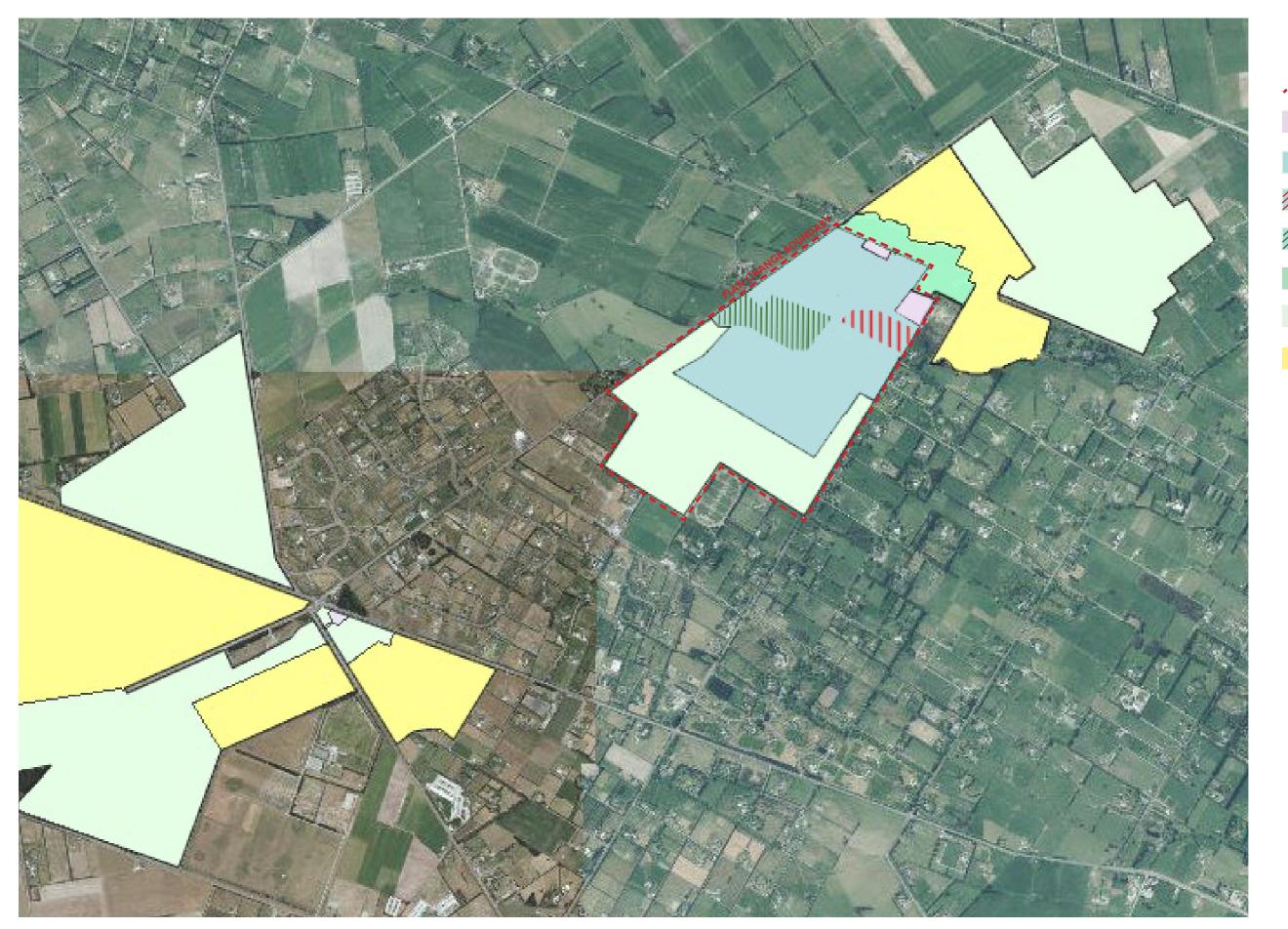
...

- <u>ak) The Residential 2 and 4A Zones and Business 4 Zone (Ōhoka) identified on District Plan Map 185 including the associated Outline Development Plan text.</u>
- 32.3 Discretionary Activities

INSERT NEW RULE

<u>32.3.7Any subdivision that does not comply with Rule 32.1.1.28.ak is a discretionary activity.</u>

ATTACHMENT D: REVISED ZONE MAP



A. PROPOSED DISTRICT PLANNING MAP FOR PLAN CHANGE AREA

Map / image source: Waimakariri District Council

LEGEND

Outline Development Plan Area

Business 4

Residential 2

Residential 2 (Education Overlay)

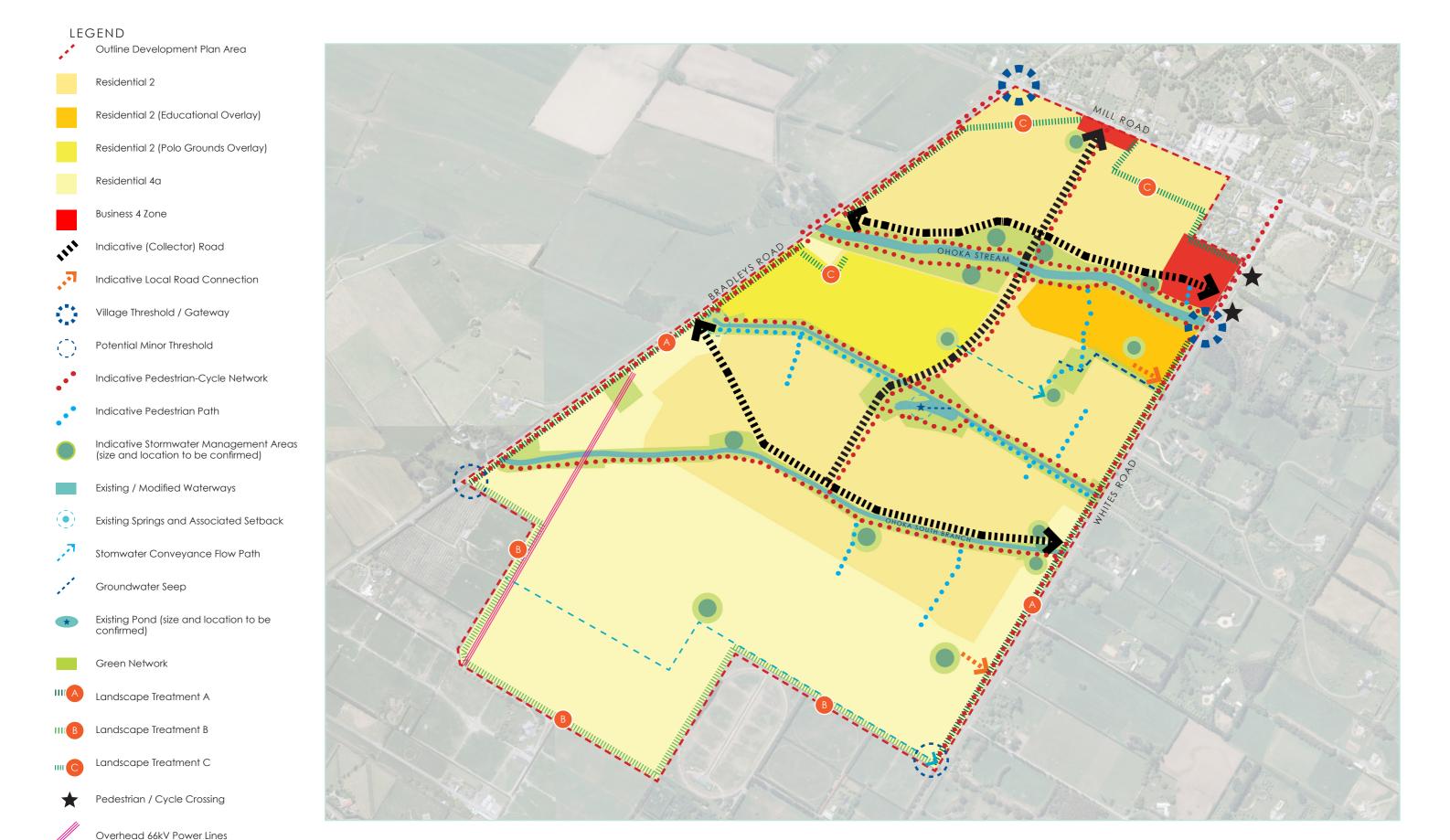
Residential 2 (Polo Grounds Overlay)

Residential 3

Residential 4a

Residential 4b

ATTACHMENT E: REVISED OUTLINE DEVELOPMENT PLAN



A. OUTLINE DEVELOPMENT PLAN - 535 MILL ROAD, OHOKA

OUTLINE DEVELOPMENT PLAN – ŌHOKA

Introduction

The Ōhoka Outline Development Plan ('**ODP**') provides for a comprehensive and carefully considered expansion of Ōhoka. The area covers approximately 156 hectares extending in a southwest direction from Mill Road and bounded on either side by Bradleys Road and Whites Road.

Key features of ODP area include:

- a village centre providing local convenience goods and services for residents and a small village square for community events/gatherings,
- provision for approximately 850 residential units, a school, and a retirement village (if a school is not developed, approximately 42 additional residential units could be established),
- provision for a polo field and associated facilities,
- a green and blue network providing for movement, recreation, and ecological enhancement of waterways,
 and
- high amenity streets appropriate for the rural setting.

All requirements specified below are to be designed/coordinated to the satisfaction of Council prior to approval of any subdivision consent application.

Land Use Plan

The development area shall achieve a minimum net density of 12 households per hectare, averaged over the Residential 2 zoned land. The zone framework supports a variety of site sizes to achieve this minimum density requirement. Staging is required to ensure the ODP area develops in a logical and appropriate manner in recognition of the current urban form of Ōhoka. Staging will proceed from the Mill Road end towards the southwest. Ōhoka Stream forms the first line of containment, the realigned and naturalised spring channel forms the second line, Ōhoka South Branch the third, and Landscape Treatment B the last.

Confirmation at the time of subdivision of each stage, and an assessment as to how the minimum net density of 12 households per hectare for the overall area can be achieved, will be required.

Residential activities are supported by key open spaces, waterbodies, and two small commercial centres, the larger of which is to become part of the village centre of Ōhoka. These commercial centres will provide good accessibility and help to meet some of the convenience needs of residents in the immediate area. Car parking within the village centre can provide a public transportation hub via the provision of park and ride services. It can also provide for ride sharing. The parking area will be of a high amenity standard enabling it to be integrated into a village square to provide additional hard surface area when required for community events, as well as providing for parking for the Ōhoka farmers market at the neighbouring Ōhoka Domain. Provision is also made to host the Ōhoka farmers market during winter months when ground conditions in the domain are unsuitable.

Provision is made for educational facilities in the area immediately adjoining the larger of the two commercial zones on Whites Road on the south side of the Ōhoka Stream. The prospect of developing such facilities will be subject to a needs assessment according to the Ministry of Education processes. If the Ministry decides that educational facilities are not required, additional residential properties will be developed at a minimum net density of 12 households per hectare.

Residential development shall retain rural village characteristics within the street environments and along property boundaries. Development controls and design guidelines specific to the development area shall be prepared and submitted to Council for approval. The guidelines will ensure that development is of the quality and character required to maintain the rural village character of Ōhoka. An independent design approval process will be established and most likely administered by a professional residents' association which would appoint an architect and landscape architect to review and approve proposals to demonstrate compliance with Rule 31.1.1.9A of the District Plan.

The keeping of cats shall be precluded within the plan change area with enforcement by way of a developer covenant.

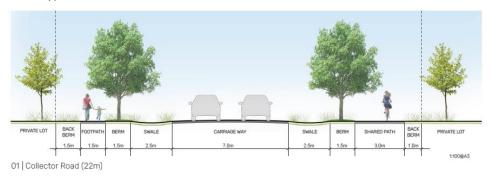
Movement Network

A road network and classification for the ODP site shall be developed that, together with the green network, delivers a range of integrated movement options. A key design principle of the movement network shall be facilitating movement towards the village centre and within the ODP site, particularly on foot or bicycle. In recognition of the character of the Ōhoka setting, several specific road types within the ODP area shall be developed with varying widths and layouts depending on the function and amenity. These are to be developed in collaboration with Council at subdivision consenting stage. Indicative cross-sections of the street types are shown in Figure 1.

Gateway treatments are located at the intersection of Mill Road and Bradleys Road, and on Whites Road at the intersection of Ōhoka Stream. The Mill Road / Bradleys Road gateway is directly at the intersection with a hard contrast from flat open rural land to a built-up edge supported by the verticality of landscape treatment. The Whites Road gateway will use the Ōhoka Stream as a distinct design feature. Combined with specific landscape treatment and bespoke design details, such as lighting and signage, this will create a strong rural gateway. The existing 100km/hr speed limit would ideally reduce to 60km/hr from the Ōhoka Stream gateway. There are potential minor traffic thresholds proposed at the southern boundaries of the ODP area at both Bradleys Road and Whites Road. The speed limit would ideally reduce to 80km/hr on Bradleys Road and Whites Road alongside the ODP frontage (outside the gateways). Regardless, two pedestrian/cycle crossings are to be provided across Whites Road, one near the Ōhoka Stream and the other near the commercial area.

The road classification shall deliver an accessible and coherent neighbourhood that provides safe and efficient access to the new development. The movement network for the area shall integrate into the existing and proposed pedestrian and cycle network beyond the ODP area. A 2.5m wide shared path is proposed with the Landscape Treatment Area A along Whites Road and Bradleys Road. Wherever possible, other bicycle and pedestrian routes shall be integrated into the green network within the ODP area. Cycling and walking shall otherwise be provided for within the road reserve and incorporated into the road design of the overall road network where applicable. Adequate space must be provided to accommodate bicycles and to facilitate safe and convenient pedestrian movements.

Trees in the road reserve will assist in reducing the perceived width of the road corridors and provide a sense of scale. Further, the street trees will break up the roof lines of the denser areas and provide shade and texture. The trees may be located between carriageway and footpaths on larger roads, and closer to the carriageway on smaller roads. Swales will also assist in softening the road appearance, along with providing stormwater treatment. Aside from the functional aspects, the different street environments will significantly contribute to differentiating the ODP area from the typical suburban character found in the main centres of the District.





02 | Typical Local Road A (17m)

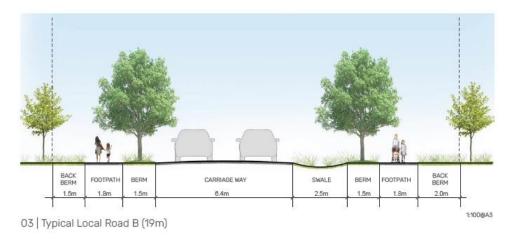


Figure 1: Indicative road cross-sections

The ODP provides road links to Mill Road, Bradleys Road and Whites Road. These intersections will be priority-controlled with priority given to the external road network. Direct vehicular access to private properties can be provided to Mill Road. Otherwise, no direct vehicular access to Bradleys Road and Whites Road is provided.

Water and Wastewater Network

Water reticulation is to be provided by the establishment of a new community drinking water scheme. A site of approximately 1,000m² will be provided within the development for water supply headworks infrastructure including treatment plant, storage reservoirs and reticulation pumps. Fire-fighting flows to FW2 standards will be provided for Residential 2 and business-zoned properties. Hydrants will be provided for emergency requirements within the large lot property areas, zoned Residential 4A, in a similar manner to the neighbouring Mandeville and Ōhoka areas.

Wastewater will be reticulated to the Rangiora Wastewater Treatment Plant either via gravity reticulation or a local pressure sewer network or a combination of both. A new rising main connecting the development to the treatment plant is likely to be required.

Open Space, Recreation and Stormwater Management

The green network combines the open space, recreational reserves including pedestrian connections, and stormwater management throughout the ODP area. The green network largely follows waterways and provides access to open space for all future residents within a short walking distance of their homes. Pedestrian and cycle paths will integrate into the green network to ensure a high level of connectivity is achieved, and to maximise the utility of the public space.

Detailed stormwater solutions shall be determined by the developer at subdivision stage and in accordance with Environment Canterbury requirements. Stormwater management facilities shall be designed to integrate into both the movement and open space networks where practicable. Groundwater monitoring will assist in the design of the stormwater management facilities.

The proposed green and blue network provides an opportunity to create ecological corridors. Plant species in the new reserves and riparian margins shall include native tree and shrub plantings. The plant species selection process shall involve consultation with local Rūnanga. The green network will ensure that dwellings are setback an appropriate distance from waterbodies.

Supporting reductions in greenhouse gas emissions

To support reducing greenhouse gas emissions, district plan rules require additional tree planting on all residential properties and at least 15% of site area to be planted in native vegetation on larger properties. Further, all dwellings shall be required to be electric vehicle charging ready. This is to be enforced through developer covenants.

Character and amenity through landscape and design

The character of Ōhoka is strongly reliant on landscaping, in particular trees, in both public and private environments. The landscape treatment of the waterway margins may include large specimen trees, but will mostly be comprised of planted natives. Space for street trees is to be provided on both sides of all road types and are to

be placed strategically to create an organic street scene avoiding a typical suburban street appearance. Additional tree planting is required on private properties via district plan rules.

An overall planting strategy is to be developed for the ODP site at subdivision consent stage.

Specific measures to protect and enhance landscape values will be addressed at the time of subdivision, and development within the ODP area shall include:

- a. An assessment by a suitably qualified and experienced arborist, guided by a suitably qualified terrestrial ecologist, that:
 - i. Identifies trees that are to be retained and integrated into the development
 - ii. Specifies protection measures during construction to ensure survival of selected trees

To further support the distinct village character of Ōhoka, street furniture, lighting and all other structures in the public realm are to reflect the rural characteristics with regard to design, type, scale, material and colour. In particular, street lighting shall be specified to minimise light spill and protect the dark night sky. These can be considered as part of the development controls and design guidelines mentioned previously.

Landscape Treatment A

Landscape Treatment A shall be designed to assist in retaining a rural character along Whites and Bradley Roads and to screen development from public and private vantage points outside the ODP area. It shall consist of a 1.5-metre-wide grass strip at the site boundary with an adjoining 2.5-metre-wide gravel path and a 10-metre-wide native vegetation strip in the location identified on the ODP and include a post and rail fence or post and wire fence on the road side of the vegetation. Solid fencing within this strip is not permitted. This is combined with a 20m building setback, consistent with setbacks required in the rural zone.

The planting is to consist of the following species planted at 1000mm centres to achieve a minimum height of 5m once established:

- Griselinia littoralis, Broadleaf;
- Cordyline australis, Ti kouka;
- Pittosporum tenufolium, Kohuhu;
- Podocarpus totara, Totara;
- Phormium tenax, Flax;
- Dacrycarpus dacrydioides, Kahikatea;
- Sophora microphylla, SI Kowhai;
- Korokia species; and
- Cortaderia richardii, SI Toetoe.

Landscape Treatment B

Landscape Treatment B, as indicated on the ODP, shall be designed to provide a visual buffer between the ODP site and adjacent rural land to the southwest. The treatment shall consist of retention of the existing shelter belts running along the southern boundary of the ODP site and planting a 6m wide landscape strip consisting of either (or a mix of) the following trees to achieve a minimum height of 5m with trees at a maximum spacing of 2000mm:

- Pinus radiata, Pine;
- Cupressus Arizonia, Arizona cypress;
- Chaemaecyparis lawsoniana, Lawson's Cypress;
- Populus nigra, Lombardy Poplar;
- Podocarpus totara, Totara (native);
- Pittosporum eugenioides, Tarata (native);
- Phormium tenax, Flax;
- Prunus lusitanica, Portuguese laurel; and
- Griselinia littoralis, Kapuka / Broadleaf (native).

Landscape Treatment C

Landscape Treatment C is proposed to be located toward the northern extent of the ODP area and act as a buffer between the ODP area and the existing Ōhoka Village properties on the southern side of Mill Road. Planting is to consist of a single row of *Prunus lusitanica* (Portuguese Laurel) along the shared internal boundaries to achieve a minimum established height of 4m and a width of 2m, planted at a maximum spacing of 1500mm (within a 6m

wide strip). This relates to the internal boundaries of 290 and 344 Bradleys Road; 507, 531 and 547 Mill Road; and 401 Whites Road.

Water Bodies and Freshwater Ecosystems

The ODP area contains several waterbodies with varying characteristics. Development of the ODP area provides potential for higher ecological values to be re-established through restoration and enhancement. This could include protected reserve space, native planting, naturalisation, and instream enhancement. Development shall protect and enhance selected water bodies and freshwater ecosystems within the ODP area and incorporate these features into the wider green and blue network of the site.

In terms of specific measures to be addressed at the time of subdivision in order to protect and enhance freshwater values and ecosystems, development within the ODP area shall:

- a. Include an assessment by a suitably qualified and experienced practitioner that:
 - i. Provides the results of detailed groundwater level investigations across the site; and,
 - ii. Specifies construction measures to ensure appropriate management of shallow groundwater.
- b. Be in accordance with an Ecological Management Plan prepared by a suitably qualified and experienced practitioner that, as a minimum, includes:
 - i. Plans specifying spring head restoration, riparian management, waterway crossing management, and segregation of spring water and untreated stormwater.
 - ii. Aquatic buffer distances, including minimum waterbody setbacks for earthworks and buildings of:
 - 30 metres from the large central springhead identified on the ODP.
 - 20 metres from the Ōhoka Stream , Northern Spring head, and Groundwater Seep origin.
 - 15 metres from Northern and Southern Spring Channel and South Ōhoka Branch.
 - 10 metres from the Groundwater Seep channel.
 - 5 metres from the South Boundary Drain along the furthermost southwest boundary of the ODP area.
 - iii. Ongoing maintenance and monitoring requirements that are to be implemented.
- c. Maintain the perennial course of the lower Southern Spring Channel.
- d. Possible re-alignment of the Northern Spring Channel baseflow into the Southern Spring Channel downstream of the spring-fed ponds. Both channels are perennial and could be meandered and naturalised.
- e. Possible meandering and naturalisation of the Groundwater Seep.

The aquatic buffers shall be protected by appropriate instruments (whether that be esplanade reserves/strips, recreation reserves or consent notice condition imposed setbacks) at the subdivision consent stage.

Cultural

The importance of natural surface waterbodies and springs to Manawhenua is recognised and provided for by the ODP and the specific measures described above in respect of waterbodies and freshwater ecosystems that will support cultural values associated with the ODP area. The Ngāi Tahu Subdivision and Development Guidelines shall be referred to throughout the subdivision design process with guidance adopted where practical/applicable.

For all earthworks across the site, an Accidental Discovery Protocol will be implemented at the time of site development, in addition to appropriate erosion and sediment controls, to assist in mitigating against the potential effects on wahi tapu and wahi taonga values generally.

Detailed Site Investigation

Due to the previous agricultural land use including the storage and spreading of dairy effluent, a Detailed Site Investigation shall be carried out at subdivision consent stage. This investigation will identify what (if any) remediation is required to satisfy the requirements of the Resource Management (National Environmental

Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

ATTACHMENT F: CHAPMAN TRIPP LEGAL OPINION



Memorandum

From: Lucy Forrester Date: 30 May 2023 Direct: +64 3 353 0939

Email: lucy.forrester@chapmantripp.com To: Tim Carter

Partner: Jo Appleyard

100513145/3447-2616-1699.1

By Email

Dear Tim

PLAN CHANGE 31 - APPLICATION OF NATIONAL POLICY STATEMENT FOR HIGHLY **PRODUCTIVE LAND**

- 1 This memorandum addresses the application of the National Policy Statement for Highly Productive Land 2022 (NPS-HPL) to the land subject to private Plan Change 31 (PC31) to the Operative Waimakariri District Plan (Operative Plan).
- 2 PC31 seeks to rezone land located in Ohoka (the PC31 Land) from Rural to a combination of predominantly Residential and some Business zoning. PC31 has been the subject of submissions and further submissions and is scheduled to be heard by Independent Hearing Commissioners in August 2023.
- 3 In summary, our analysis is that the NPS-HPL does not apply to the PC31 Land. We set out our reasoning below.

Application of NPS-HPL

- 4 The NPS-HPL came into force on 17 October 2022. It sets out a regime for the protection of highly productive land for use in land-based primary production, both for now and for future generations.1
- 5 For PC31, the first determination required is whether the PC31 Land is highly productive land to which the NPS-HPL applies. If it is not, the NPS-HPL need not be further considered.
- 6 Clause 3.5 of the NPS-HPL deals with the identification of highly productive land. Regional councils are required to map highly productive land in their regional policy statements within three years of the NPS-HPL coming into force.²

¹ NPS-HPL, policy 1.

² NPS-HPL, clause 3.5(1).



- In the interim period before mapping occurs, land must be treated as highly productive land for the purposes of the NPS-HPL if it, at the NPS-HPL commencement date:
 - 7.1 is:
 - (a) clause 3.5(7)(a)(i) zoned general rural or rural production; and
 - (b) clause 3.5(7)(a)(ii) LUC 1, 2 or 3 land; but
 - 7.2 is not:
 - (a) clause 3.5(7)(b)(i) identified for future urban development; or
 - (b) clause 3.5(7)(b)(ii) subject to a Council initiated, or an adopted, notified plan change to rezone it from general rural or rural production to urban or rural lifestyle.
- 8 At the NPS-HPL commencement date, the PC31 Land:
 - 8.1 was zoned Rural under the Operative Plan;
 - 8.2 was LUC 1, 2, or 3 land (being predominantly LUC 3 with a small portion of LUC 2 in the north-western corner);
 - 8.3 was not identified for future urban development; but
 - 8.4 was subject to a Council initiated, or an adopted, notified plan change to rezone it to rural lifestyle.
- 9 We consider that the NPS-HPL does not apply to the PC31 Land. We set out our detailed analysis in the following sections.

'Council initiated, or an adopted, notified plan change'

- The Waimakariri District Council (*WDC*) is currently reviewing its Operative Plan. WDC notified its Proposed Waimakariri District Plan (*Proposed Plan*) on 18 September 2021.
- 11 Under the Proposed Plan, the PC31 Land is zoned Rural Lifestyle.
- The NPS-HPL does not define a 'Council initiated, or an adopted, notified plan change' in clause 3.5(7)(b)(ii).
- Section 43AA of the Resource Management Act 1991 (*RMA*) contains the following definitions:

change means



- (a) a change proposed by a local authority to a policy statement or plan under clause 2 of Schedule 1, including an IPI notified in accordance with section 80F(1) or (2); and
- (b) a change proposed by any person to a policy statement or plan by a request under clause 21 of Schedule 1

plan means a regional plan or a district plan

- 14 The Proposed Plan is plainly a 'Council initiated... notified plan change' for the purposes of clause 3.5(7)(b)(ii) of the NPS-HPL.
- The rationale for land that is subject to a 'Council initiated, or an adopted, notified plan change' being excluded from the application of the NPS-HPL is set out in the Ministry for the Environment's NPS-HPL Guide to Implementation. The Guide explains:³

Clause 3.5(7)(b)(ii) is intended to exclude land from the transitional definition of HPL if there is a council-initiated, or adopted, notified plan change to rezone the land to either an urban zone (defined in Clause 1.3(1) of the NPS-HPL) or to a rural lifestyle zone. If a territorial authority has progressed a plan change to rezone rural land to urban and this has already been notified, then the NPS-HPL does not undermine the work undertaken by territorial authorities and their communities to get to this point in the process.

In our view, the wording of clause 3.5(7) is clear that the NPS-HPL does not apply to the PC31 Land.

Conclusion

Our analysis is that the NPS-HPL does not apply to the PC31 Land because it is subject to a Council initiated notified plan change to rezone it from general rural to rural lifestyle.

Jo Appleyard / Lucy Forrester Partner / Senior Solicitor

³ National Policy Statement for Highly Productive Land: Guide to Implementation, p 17.

ATTACHMENT G: MACFARLANE RURAL BUSINESS ADVICE



FARM REPORT

Farm: 535 Mill Road, Ohoka (Private Plan Change 31)

Date: 6 July 2023

Consultant: Mark Everest

TOPICS: PC31 to Operative Waimakariri District Plan - Economic Viability Assessment

1. Introduction

- I have been asked by the Applicant of Private Plan Change 31 (PC31) to the Operative Waimakariri District Plan to provide my views on the economic viability of land based primary production on the PC31 site.
- 2. My letter covers the following:
 - 2.1. Assessment of agronomically viable agricultural and horticultural land based enterprise options for the PC31 site being 155.9ha at or about 535 Mill Road, Ohoka.
 - 2.2. Economic viability of the PC31 site if used for land based primary producing purposes.
- 3. In preparing this letter I have reviewed:
 - 3.1. Section 42A Report to RCP031 Ohoka Plan Change (PC31), prepared by Andrew Willis;
 - 3.2. Appendix 3 to Section 42A Report on PC31 (Productivity Assessment and comment on the NPS-HPL), prepared by Stuart Ford;
 - 3.3. Request for Change to Waimakariri District Plan at 535 Mill Road Ohoka (PC31), Prepared by Tim Walsh;
 - 3.4. Appendix A to PC31 (Assessment of Potential Loss of Productive Land), Prepared by Victor Mthamo:
 - 3.5. Appendix G (Part 1) to PC31 (Infrastructure Assessment Part 1 of 4), Prepared by Chris Sexton:
 - 3.6. The land and relevant national and regional planning frameworks to which the land occupier is required to comply with.

2. Summary of Findings

4. After considering the physical resources available to the PC31 site and the relevant planning frameworks, I consider that there are three productively viable land use options that suit the site. The productively viable options include livestock trading, dairy production and horticultural production. The site is not constrained by scale, irrigation water or nutrient availability (any more than other sites across the District), however reverse sensitivity of residential amenity values, soil type and climate constrain PC31 site from being suited to high value perennial crops such as pipfruit, summerfruit, berryfruit or viticulture.

- 5. When preparing my economic viability assessment, I have assumed better than average management and resource use efficiency.
- 6. Of the three identified productively viable land-based, primary producing enterprises assessed, horticulture achieves a 3.6% Return on Capital (RoC). I determine none of the assessed land-based primary producing enterprises as being economically viable when considering a 4.0% RoC threshold.
- I consider that the 155.9ha of land within the PC31 site will incur progressively reduced
 productivity over time as a result of increased reverse sensitivity. As productivity drops, economic
 viability will be further degraded.
- 8. I therefore do not consider productive agriculture or horticulture to be economically viable uses of the land, when considering a 30 year timeframe.

3. Resource Constraints

3.1. Effective area of Land

- 9. Using mapping software, I estimate the area of land unavailable to productive uses (ineffective area) is 16.9 hectares. The land that is ineffective is covered by established items I consider permanent over a 30 year time scale. The established items considered are: buildings and infrastructure; water courses; access lanes and treelines.
- 10. The effective area of the PC31 Site is therefore considered to be 139ha.
- 11. The proportion of a property that is typically able to be irrigated is up to 95% of the effective area. On this basis I assume that the irrigatable area of the PC31 site could be 95% of 139ha (132ha).

3.2. Soils

- 12. The PC31 site is predominantly located over Ayreburn, Paynter and Leeston Soils, all of which are variants of Gley Soils, characterized by high water holding capacities (90 to 154mm in top 60cm), but also poor drainage and high vulnerability to water logging.
- 13. Due to the prevalence of high waterlogging risk, the site precludes itself from providing a suitable substrate for growing perennial or winter sown plants whose performance is compromised significantly by waterlogged soil conditions.
- 14. While waterlogging is a risk to the site, Table 8 of Appendix A to PC31 (Assessment of Potential Loss of Productive Land), prepared by Victor Mthamo, illustrates that while soil moisture deficits are very low (indicating saturation) in May, June, July and August, there are higher soil moisture deficits for the rest of the production year. Soil moisture deficits through September to April provide an opportunity to grow annual crops which may otherwise be sensitive to waterlogging due to the fact that the risk of soils becoming waterlogged during this time is less likely.

3.3. Nutrients

15. The PC31 site is located within the Ashley-Waimakariri Nutrient Allocation Zone as defined by the Canterbury Land and Water Regional Plan (CLWRP). The zone is considered over-allocated for

- nutrients and therefore subject to Rules 5.41-5.48 of the CLWRP which restrict the increase of Nitrogen discharge above the 2009-2013 loss rate as defined by OverseerFM.
- 16. Attachment 1 of Appendix A to PC31 (Assessment of Potential Loss of Productive Land), prepared by Victor Mthamo details a current nitrogen loss rate of 16kgN/ha/year.
- 17. The PC31 site is not located in the phosphorus risk zones and therefore unconstrained by phosphorus loss restrictions.

3.4. Irrigation Water

- 18. The PC31 site is located in the Eyre Groundwater Allocation Zone, which is considered overallocated and therefore additional consents to take and use ground or surface water are unlikely to be granted.
- 19. The PC31 site however holds a number of groundwater consents as outlined in section 7.4 of Appendix A to PC31 (Assessment of Potential Loss of Productive Land), prepared by Victor Mthamo.
- 20. While Mr Mthamo discusses a lack of data available to ascertain the reliability of Consent CRC991827 without restriction, Consent CRC991827 provides for a reduced rate of take while the Ohoka Stream is gauged at or below 300 litres per second at the confluence of the Kaiapoi River. The minimum flow provision on the Ohoka Stream restricts a constant rate of take of groundwater to 8.4 litres per second.
- 21. Consent CRC991022 provides constant rate of take of groundwater for the taking of up to 57.5 litres per second.
- 22. Collectively, consents CRC991022 and CRC991827 provide for a constant rate of take of 65.9 litres per second.
- 23. Irrigation requirement calculating software, Irricalc, estimates that PC31 Site requires a daily peak volume of 53m³ per hectare or 5.3mm/ha/day (Appendix 1), which is sufficient water to irrigate 123 hectares of the PC31 site with certainty of crop performance.

3.5. Reverse Sensitivity

- 24. As urban urban land uses encroach on areas traditionally used for rural production, there is increased social pressure on farmers to comply with the convention of a residential setting and associated expectations. Commonly these arise through crop residue burning, animal odours, noise and light at night or spraying.
- 25. Canterbury Regional Council has developed rules to manage the effects of odour, they are:
 - 25.1. The Canterbury Regional Policy Statement, Rule 14.3.4 requires operators to avoid adverse effects of agrichemical sprays drifting beyond property boundaries or onto non-targeted properties.
 - 25.2. Canterbury Air Regional Plan, Rule 7.77 requires that fertiliser spreading and agrichemical spraying does not cause an offensive or objectionable effect beyond the boundary of the property.
- 26. Even though Canterbury Regional Council rules create provision for the control of activities, the interpretation of the term 'objectionable' can vary depending on the setting.

- 26.1. A recent example of interpretation of 'objectionable' resulted in the halting of spraying gorse in Wellingtons Belmont Regional Park farm in 2022. The spraying was halted primarily due to objectionable odour. The Regional Park is both a farm and partially open to the public, similar circumstances to a primary producing unit being located adjacent to a residential setting.
- 26.2. In my experience, in a rural setting the spraying of gorse and the emission of odour associated with agrichemical products is considered acceptable as a result of being common practice.
- 27. The listed activities above are considered standard practices in areas dominated by productive agriculture and/or horticultural farms. If the practices of agriculture or horticulture are not compatible with residential neighbours, then the productive capability of the land will be constrained. Practices relating to productive agriculture are often time critical, therefore altering timing to manage the above can negatively impact productivity.
- 28. The PC31 site shares boundaries in common with residential or lifestyle-residential dwellings to the North East and South East. While the current use of land is for dairy farming and arable cropping, a prudent primary production operator of the PC31 site would likely expect to have to operate a more conservative farm programme in coming years in order to meet residential amenity expectations. A more conservative production programme, results in poorer profitability and often makes properties economically unviable.

4. Land Based Primary Producing Land Uses Considered

29. In this assessment I have only considered viable opportunities currently available to the Central and North Canterbury Region. I have considered a number of primary producing land uses for the PC31 site, and have excluded those where physical limitations make them unsuitable. The options considered as practically viable are able to operate with the irrigation resources available and have been assessed using OverseerFM as complying with the nutrient losses limit of 16kgN/ha/year.

4.1. Practically the viable land uses for the site are:

- 30. Dairy farming (irrigated).
- 31. Vegetable and arable farming (irrigated) as a proxy for vegetable production. Considering only spring sown vegetables due to risk of waterlogged soils over winter.
- 32. Cattle trading and livestock finishing (irrigated)

4.2. Land uses excluded due to the physical limitations of the site are:

- 33. Pipfruit (irrigated). Discounted due to unsuitability of soils. Pipfruit production requires relatively free draining soils and very low risk of waterlogging. The PC31 site is poorly drained and prone to waterlogging therefore not suitable for pipfruit production.
- 34. Summerfruit (irrigated). Discounted due to unsuitability of soils and low heat units necessary for viable fruit production on site. Summerfruit production requires relatively free draining soils and

- very low risk of waterlogging. The PC31 site is poorly drained and prone to waterlogging therefore not suitable for summerfruit production.
- 35. Viticulture (irrigated). Discounted due to unsuitability of soils. Viticulture requires free draining soils or low risk of waterlogging. The PC31 site is poorly drained and prone to waterlogging therefore not suitable for viticulture production.
- 36. Berryfruit in rotation with grain production and livestock trading (irrigated). Discounted due to unsuitability of soils. Berryfruit require free draining soils or low risk of waterlogging. The PC31 site is poorly drained and prone to waterlogging therefore not suitable for berryfruit production.

5. Economic Viability

37. I define economic viability of a farming business as being able to satisfy two objectives:

Objective One: Remunerate the owners of the land (if they are owner operators) equivalent to the weighted average salary of employees in the agricultural sector, scaled pro-rata based on the amount of time required to run the "farm". The average remuneration for agricultural employees in the 2022 Federated Farmers – Rabobank Farm Remuneration Report is \$67,567; and

Objective Two: Generate a Return on Capital (RoC) acceptable for the class of country. On flat land in Canterbury, RoC¹ should be at least 4.0%.

- 38. I have assessed the productive capability of the land, identifying three practically viable land use options. For the identified practically viable land use options, I have assumed the owner would form a component of the labour force. For all of the assessed viable land use options, the labour requirements are at least one full time equivalent.
- 39. In my analysis I have only considered the economics of selling product wholesale to a further processor or retailer. Any further value added to product by a processor or retailer should be attributed to the investment in processing or retail facilities, not production.
- 40. The I have prepared financial budgets for the three practically viable production systems. A summary of the capital and operational budgets for the three production systems considered are outlined in Figure 1 below.

¹ Return on Capital is calculated as Earnings Before Interest, Tax, and Rent (EBITR) divided by Total Investment Cost (land, buildings, plant, machinery, livestock, supplier shares).

	Irrigated livestock trading		Irrigated Dairy		Irrigated Horticulture	
Operating Budget						
income	\$5,066	/ha	\$11,193	/ha	\$13,486	/ha
Total Expenses	\$3,986	/ha	\$7,450	/ha	\$9,448	/ha
Earnings Before Interest and Tax (EBIT)	\$1,080	/ha	\$3,742	/ha	\$4,038	/ha
Owner Remuneration	\$67	,567	\$67	,567	\$67	,567
EBITR Target (4% RoC)/155.9ha	\$673	,900	\$698	3,718	\$693	3,000
EBITR Achieved/155.9ha	\$150),094	\$520),178	\$561	,302
Capital						
Land and Improvements (Rating Valuation)	\$105,837	/ha	\$105,837	/ha	\$105,837	/ha
Capital Stock	\$1,331	/ha	\$4,573	/ha	\$0	/ha
Infrastructure	\$6,706	/ha	\$14,403	/ha	\$7,668	/ha
Plant and Machinery	\$898	/ha	\$1,636	/ha	\$5,292	/ha
Total Capital	\$108,066	/ha	\$112,046	/ha	\$111,129	/ha
Return on Capital	1.0	0%	3.3	3%	3.6	5%

Figure 1: Enterprise Profitability and Return on Capital

- 41. From an economic perspective, all three of the assessed physically viable land based primary production systems show positive EBITR² figures after remunerating owners for their time.
- 42. While I have considered horticulture and dairy as a viable primary production option on the land, there is considerable risk of odour originating from agrichemical spraying or effluent discharge causing offence to neighbours.
- 43. Agrichemical spraying (even for organic production) is undertaken to enable plants to generate viable yields. Some crops can be sprayed up to 30 times per year. If spraying becomes deemed by neighbours as objectionable (reverse sensitivity effects constraining the farming operation), then these crops would not be viable as the disease build up makes end product unsaleable.
- 44. Spreading of effluent originating from animals held on yards or feed pads produces an odour when applied to land. If the odour becomes deemed by neighbours as objectionable (reverse sensitivity effects constraining the farming operation), the consent to store and discharge effluent may not be re-issued by Regional Council. Without an effluent storage and discharge consent, the land would be unable to be used for dairy production and would likely resolve to operate similar to that of the Irrigated Livestock Trading production system.
- 45. While the remuneration target of Objective One is met for all three of the assessed farm systems, none of the options meet the 4.0% RoC threshold of Objective Two. The primary production systems evaluated fail to meet the RoC threshold primarily due to the high cost of the underlying land. As a result of the high cost of land, no prudent operator would invest in the land at the PC31 site for the purposes of developing or expanding an economically viable land-based, primary production system.

² EBITR is Earnings (income less direct expenses) Before Interest, Tax and Rent.

- 46. With no higher-value land use alternatives emerging, and a history of real profits eroding over time, I do not consider that land based, primary production on land located within the PC31 site is currently economically viable or will become economically viable when considering a 30 year time frame.
- 47. My concern for productive and economic viability of the land within PC31 site is amplified by the threat of residential neighbours objecting to necessary agricultural practices such as odours originating from animal effluent storage and discharge or chemical spraying in future years.

6. Conclusions

- 48. After considering the physical resources available to the PC31 site and the relevant planning frameworks, I consider that there are three productively viable land use options that suit the site. The productively viable options include, livestock trading, dairy production and horticultural production.
- 49. Of the three identified productively viable land-based, primary producing enterprises assessed, I determine none of them as being economically viable when considering a 4.0% RoC threshold.
- 50. I consider that the 155.9ha of land within the PC31 site will incur progressively reduced productivity over time as a result of increased reverse sensitivity. As productivity drops, economic viability will be further degraded.
- 51. I therefore do not consider productive agriculture or horticulture to be economically viable uses of the land at the PC31 site having considered a 30 year timeframe.

Mark Everest
Farm Management Consultant
MACFARLANE RURAL BUSINESS LTD
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Appendix 1: Irrigation Requirements



Sourced from: mycatchment.info on 30/6/2023

Appendix 2: Rating Valuation of Land

Rating Information Details

Property Description

Property ID:	20484
Valuation Number:	2174024700
Location:	347 Whites Road OHOKA
Legal Description:	LOTS 2 3 DP 318615 LOT 2 DP 61732 LOT 2 PT LOT 1 DP 8301
Nature Of Improvements:	3 DWG FG OB OI

Current Valuation

Date of Value	Value Type	Value
1/07/2022	Land Value	15000000
1/07/2022	Capital Value	16500000
1/07/2022	Improvement Val	1500000
1/07/2022	QV Land Area	152.5639

Your results have been limited.

Future Valuation

Date of Value	Value Type	Value
1/07/2022	Land Value	15000000
1/07/2022	Capital Value	16500000
1/07/2022	Improvement Val	1500000
1/07/2022	QV Land Area	152.5639

Your results have been limited.

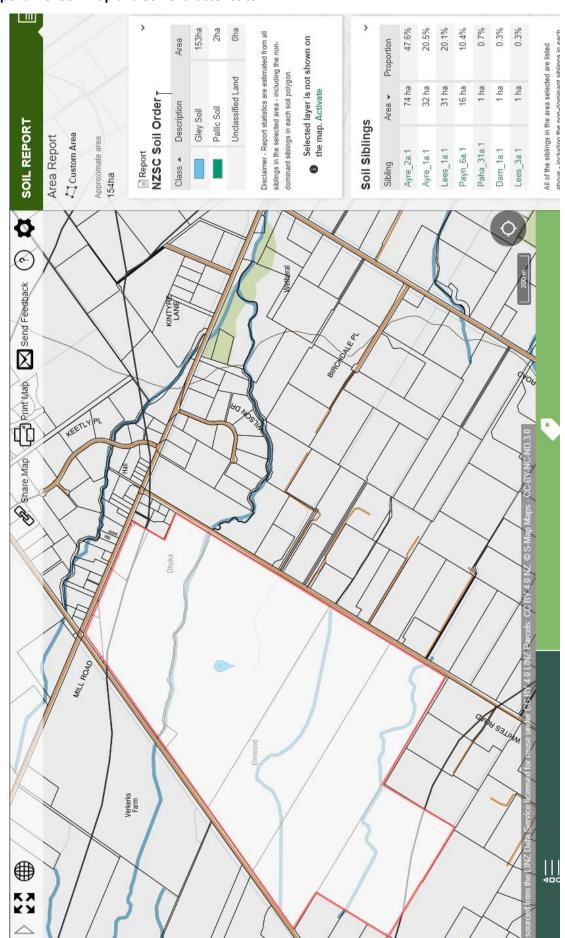
Sourced from: Waimakariri District Council Website on 1/7/2023

Current Year Rates

Description(basis)	Factor	Rate	Amount
General Rate	16500000	0.000396	\$6,534.00
Uniform Annual General Rate	1	135.00	\$135.00
Animal Control - Stock	16500000	0.000006	\$99.00
Canterbury Museum Redevelopment	1	7.90	\$7.90
Community Board Oxford - Ohoka	16500000	0.000005	\$82.50
Community Board Oxford - Ohoka fixed	1	29.18	\$29.18
Drainage - Ohoka Rural	15000000	0.0004124	\$6,186.00
Drainage - Ohoka Rural fixed	1	70.00	\$70.00
Earthquake Recovery Rate	1	139.31	\$139.31
Community Library/Museums Rate	1	199.29	\$199.29
Canterbury Museum Operational	1	31.40	\$31.40
Community Parks & Reserves Buildings/Grants	1	504.70	\$504.70
Roading fixed Rate	1	122.81	\$122.81
Roading Rate	16500000	0.000513	\$8,464.50
Community Swimming Pools Rate	1	173.33	\$173.33
General Rate	16500000	0.00033304	\$5,495.16
Uniform Annual General Charge	1	42.53	\$42.53
Civil Defence	1	11.96	\$11.96
Greater ChCh Transport & Development	16500000	0.00000395	\$65.18
Passenger Transport - Rural	1	24.68	\$24.68
Pest Management - charge	15000000	0.00004466	\$669.90
Pest Management - Per Hectare	152.5639	0.2058	\$31.40
Waimakariri FP - Class B	16500000	0.00000107	\$17.66
W-E-C Catchment Works Class A	10189000	0.00001726	\$175.86
W-E-C Catchment Works Class B	6311000	0.00001150	\$72.58
Works & Services Rate	16500000	0.00000684	\$112.86
Total			\$29,498.69

Sourced from: Waimakariri District Council Website on 1/7/2023

Appendix 3: Soil Map and Soil Characteristics



Ayreburn_1a.1

Soil physical properties

Depth class (diggability)

Deep (> 1 m)

Potential rooting depth

Unlimited

Rooting barrier
No significant barrier within 1

Depth to hard rock

No hard rock within 1 m

Depth to soft rock

No soft rock within 1 m Depth to stony layer class

No significant stony layer within

Texture profile

Clay

Topsoil stoniness

Stoneless

Topsoil clay range

35 - 70 %

Drainage class

Poorly drained

Permeability profile

Moderate over slow

Depth to slowly permeable horizon

25 - 45 (cm)

Permeability of slowest horizon

Slow (< 4 mm/h)

Aeration in root zone

Very limited

Profile available water

(0 - 30cm or root barrier)

(0 - 60cm or root barrier)

High (90 mm)

(0 - 100cm or root barrier) Moderate to high (147 mm) Dry bulk density topsoil

subsoil

0.87 g/cm³

1.01 g/cm³

Ayreburn 2a.1

High (50 mm)

Soil physical properties

Depth class (diggability)

Moderately deep (45 - 90 cm)

Potential rooting depth

70 - 100 (cm)

Rooting barrier

Extremely gravelly

Depth to hard rock

No hard rock within 1 m

Depth to soft rock No soft rock within 1 m

Depth to stony layer class

Moderately deep

Texture profile

Clay

Topsoil stoniness

Stoneless

Topsoil clay range

35 - 50 %

Drainage class

Poorly drained

Permeability profile

Moderate over slow Depth to slowly permeable horizon

20 - 50 (cm)

Permeability of slowest horizon

Slow (< 4 mm/h)

Aeration in root zone Very limited

Profile available water

High (54 mm)

(0 - 30cm or root barrier)

(0 - 60cm or root barrier)

High (95 mm)

(0 - 100cm or root barrier)

Moderate to high (127 mm)

Dry bulk density

topsoil 0.87 g/cm³ subsoil 1.01 g/cm³

Leeston_1a.1

Soil physical properties

Depth class (diggability)

Shallow (20 - 45 cm)

Potential rooting depth

70 - 100 (cm)

Rooting barrier Extremely gravelly

Depth to hard rock

No hard rock within 1 m

Depth to soft rock No soft rock within 1 m

Depth to stony layer class

Texture profile

Clay

Topsoil stoniness

Slightly stony

Topsoil clay range

30 - 45 %

Drainage class

Poorly drained

Permeability profile

Moderate over slow Depth to slowly permeable horizon

40 - 100 (cm)

Permeability of slowest horizon

Slow (< 4 mm/h)

Aeration in root zone

Limited

Profile available water

(0 - 30cm or root barrier)

(0 - 60cm or root barrier) High (91 mm)

(0 - 100cm or root barrier) Moderate (111 mm)

Dry bulk density topsoil

subsoil

0.87 g/cm³

1.01 g/cm³

Paynter_6a.1

High (53 mm)

Soil physical properties

Depth class (diggability)

Deep (> 1 m)

Potential rooting depth

50 - 100 (cm)

Rooting barrier

Anoxic conditions

Depth to hard rock

No hard rock within 1 m

Depth to soft rock

No soft rock within 1 m

Depth to stony layer class

No significant stony layer within

Texture profile

Peat over clay

Topsoil stoniness

Stoneless

Topsoil clay range

20 - 35 %

Drainage class

Very poorly drained

Permeability profile

Depth to slowly permeable horizon

15 - 30 (cm)

Permeability of slowest horizon

Slow (< 4 mm/h)

Aeration in root zone

Very limited

Profile available water

(0 - 30cm or root barrier) Very high (112 mm)

(0 - 60cm or root barrier) Very high (154 mm)

High (224 mm)

(0 - 100cm or root barrier)

Dry bulk density

topsoil 0.27 g/cm³ subsoil 1.01 g/cm³