

OFFICER'S REPORT FOR:

Independent Hearing Commissioners

SUBJECT:

Variation 1 Rezonings

PREPARED BY:

Peter Wilson

REPORT DATED:

22 July 2024

DATE OF HEARING:

19-27 August 2024

Executive Summary

1. This report considers submissions received by the Waimakariri District Council on rezoning requests under Variation 1 to the Proposed Plan. The report outlines recommendations in response to the rezoning requests.
2. 28 requests for rezonings under Variation 1 were received and this report addresses these rezoning requests.
3. I have recommended changes to Variation 1 in response to rezoning requests as follows:
 - The rezoning of the 'Bellgrove North' and 'Townsend Fields' areas from rural to V1 medium density residential, as set out in the Variation as notified.
 - The inclusion of an additional small section of Bellgrove North land, that was missed from the maps at time of notification.
4. Having considered all the submissions and reviewed all relevant statutory and non-statutory documents, I recommend that the Proposed Plan should be amended as set out in section Appendix A of this report.
5. For the reasons set out in the Section 32AA evaluation included throughout this report, I consider that the proposed objectives and provisions, with the recommended amendments, will be the most appropriate means to:
 - achieve the purpose of the RMA where it is necessary to revert to Part 2 and otherwise give effect to higher order planning documents, in respect to the proposed objectives, and
 - achieve the relevant objectives of the Proposed Plan, in respect to the proposed provisions.

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Interpretation

6. The report utilises a number of abbreviations for brevity as set out in **Error! Reference source not found.** below:

Table 1 Abbreviations

Abbreviation	Means
C/RPS	Operative Canterbury Regional Policy Statement
CDWSPZ	Canterbury Drinking Water Source Protection Zone
District Council	Waimakariri District Council / territorial authority
DLS	Davie Lovell Smith
ECan	Environment Canterbury/Canterbury Regional Council
ENGEO	An engineering consultancy
F(U)DA	Future (urban) development area
FDS	Future development strategy
GCSP	Greater Christchurch Spatial Plan
GHG	Greenhouse Gases
GRZ	General residential zone
IPI	Intensification Planning Instrument
LLRZ	Large Lot Residential Zone
LTP	Long Term Plan (Local Government Act 2002)
MDRS	Medium Density Residential Standards
MDRS	Medium Density Residential Standards (sch 3A, RMA)
MDRZ	Medium Density Residential Zone
NER	North East Rangiora
NES	National Environmental Standard
NESAQ	National Environmental Standards for Air Quality 2004
NESCS	National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health 2011
NESETA	National Environmental Standards for Electricity Transmission Activities 2009
NESF	National Environmental Standards for Freshwater 2020
NESPF	National Environmental Standards for Plantation Forestry 2017
NESSDW	National Environmental Standards for Sources of Drinking Water 2007
NESTF	National Environmental Standards for Telecommunication Facilities 2016
NPS	National Policy Statement
NPSET	National Policy Statement on Electricity Transmission 2008
NPSFM	National Policy Statement for Freshwater Management 2020
NPSHPL	National Policy Statement on Highly Productive Land
NPSREG	National Policy Statement for Renewable Electricity Generation 2011
NPSUD	National Policy Statement on Urban Development 2020
NZCPS	New Zealand Coastal Policy Statement 2010
ODP	Outline Development Plan
Operative Plan	Operative Waimakariri District Plan

Abbreviation	Means
PDP	Proposed Plan
Proposed Plan	Proposed Waimakariri District Plan
PT	Public Transport
REL	Rangiora Eastern Link road/bypass
RLZ	Rural Lifestyle Zone
RMA	Resource Management Act 1991
RMAEHA	RMA Enabling Housing Supply and Other Matters Amendment Act 2021
SARZ	Sport and Recreation Zone
SER	South East Rangiora development area
SMA	Stormwater Management Area
SW	Stormwater
SWMA	Stormwater Management Area
WDDS	Waimakariri District Development Strategy
WW	Wastewater

Table 2 Abbreviation of Submitters' names

Abbreviation	Means
CCC	Christchurch City Council
CDHB	Christchurch District Health Board
Chorus	Chorus New Zealand Ltd
CIAL	Christchurch International Airport Ltd
Corrections	Ara Poutama Aotearoa the Department of Corrections
DoC	Department of Conservation Te Papa Atawhai
ECan	Environment Canterbury / Canterbury Regional Council
Federated Farmers	Federated Farmers of New Zealand Inc.
FENZ	Fire and Emergency New Zealand
Fish and Game	North Canterbury Fish and Game Council
Forest and Bird	Royal Forest and Bird Protection Society
Heritage NZ	Heritage New Zealand Pouhere Taonga
Hort NZ	Horticulture NZ
Kainga Ora	Kainga Ora - Homes and Communities
KiwiRail	KiwiRail Holdings Limited
Mainpower	Mainpower New Zealand Ltd
MoE	Minister / Ministry of Education
Ngāi Tūāhuriri	Te Ngāi Tūāhuriri Rūnanga
NZDF	New Zealand Defence Force
Police	Minister of Police / NZ Police
QEII Trust	Queen Elizabeth the Second National Trust
Ravenswood	Ravenswood Developments Ltd
Spark	Spark New Zealand Trading Ltd
Tuhaitara Trust	Te Kohaka o Tuhaitara Trust
Transpower	Transpower New Zealand Ltd
Vodafone	Vodafone New Zealand Ltd / One.NZ

Abbreviation	Means
WDC	Waimakariri District Council (including as requiring authority)
Waka Kotahi	Waka Kotahi NZ Transport Agency

In addition, references to submissions includes further submissions, unless otherwise stated.

1 Introduction

1.1 Purpose

7. The purpose of this report is to provide the Independent Hearing Panel with a summary and analysis of rezoning submissions received on Variation 1: Housing Intensification and to recommend possible amendments to Variation 1 in response to those submissions.
8. This report is prepared under section 42A of the RMA. It considers rezoning submissions received by the District Council on the Variation 1 in relation to the relevant strategic directions objectives, objectives, policies, rules, definitions, appendices and maps in the Proposed District Plan within the scope of Variation 1. The report outlines recommendations in response to the rezoning submissions.
9. The recommendations are informed by both the technical evidence provided by the submitters in support of the rezoning applications, and where undertaken, reviews of this technical evidence. In preparing this report the author has had regard to recommendations made in other related s42A reports.
10. This report is provided to assist the Independent Hearings Panel in their role as Independent Commissioners. The Independent Hearings Panel may choose to accept or reject the conclusions and recommendations of this report and may come to different conclusions and make different recommendations, based on the information and evidence provided to them by submitters.
11. The following submissions have been received:
 - Rezonings within and around Rangiora (19)
 - Rezonings within and around Kaiapoi (4)
 - Rezonings within and around Woodend/Rangiora/Pegasus 5)

1.2 Author

12. My name is Peter Gordon Wilson. My qualifications and experience are set out in Appendix C of this report.
13. My role in preparing this report is that of an expert planner.
14. I was not involved with the preparation of the Proposed District Plan or the substantive content of Variation 1. I did undertake a review of Variation 1 immediately prior to notification, which resulted in minor changes to it, and following notification, in the correction of minor errors and addition of identifying markup under cl 16(2) sch 1 and s80H RMA.
15. Although this is a District Council Hearing, I have read the Code of Conduct for Expert Witnesses contained in the Practice Note issued by the Environment Court December 2023. I have complied with that Code when preparing my written statement of evidence and I agree to comply with it when I give any oral evidence.
16. The scope of my evidence relates to Variation 1: Housing Intensification rezonings only. The substantive content of the Variation is to be addressed in hearing stream 7.
17. I confirm that the issues addressed in this statement of evidence are within my area of expertise as an expert policy planner.
18. Any data, information, facts, and assumptions I have considered in forming my opinions are set out in the part of the evidence in which I express my opinions. Where I have set out opinions in my evidence, I have given reasons for those opinions.

19. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

1.3 Supporting Evidence

20. The expert evidence, literature, legal cases or other material which I have used or relied upon in support of the opinions expressed in this report includes the following:
 - Evidence of submitters, as listed in each specific section
 - Reviews undertaken by Council and other advice commissioned by Council, as listed in each specific section

1.4 Procedural Matters

21. All of the submissions reviewed in this report are on Variation 1 itself and in the context of rezoning requests under Variation 1 only. The substantive content of Variation 1 will be discussed in hearing stream 7.
22. Variation 1 is heard and processed under the Intensification Streamlined Planning Process (ISSP), part 5, sch 1, RMA. This is separate to the part 1, sch 1, RMA process that the Proposed Plan is heard and processed under.

2 Statutory Considerations

2.1 Resource Management Act 1991

23. Variation 1 has been prepared in accordance with the RMA and in particular, the requirements of:
- s77F-s77R Intensification requirements in residential and non-residential zones.
 - s80E-80H Intensification planning instruments and intensification streamlined planning process.
 - s86BA Immediate legal effect of rules in IPI prepared using the ISPP.
 - Schedule 3A RMA Medium density residential standards (MDRS) to be incorporated by specified territorial authorities.

2.2 Section 32AA

24. I have undertaken an evaluation of the recommended amendments to provisions since the initial section 32 evaluation was undertaken in accordance with s32AA . Section 32AA states:

32AA Requirements for undertaking and publishing further evaluations

(1) A further evaluation required under this Act—

(a) is required only for any changes that have been made to, or are proposed for, the proposal since the evaluation report for the proposal was completed (the changes); and

(b) must be undertaken in accordance with section 32(1) to (4); and

(c) must, despite paragraph (b) and section 32(1)(c), be undertaken at a level of detail that corresponds to the scale and significance of the changes; and

(d) must—

(i) be published in an evaluation report that is made available for public inspection at the same time as the approved proposal (in the case of a national policy statement or a New Zealand coastal policy statement or a national planning standard), or the decision on the proposal, is notified; or

(ii) be referred to in the decision-making record in sufficient detail to demonstrate that the further evaluation was undertaken in accordance with this section.

(2) To avoid doubt, an evaluation report does not have to be prepared if a further evaluation is undertaken in accordance with subsection (1)(d)(ii).

25. The required section 32AA evaluation is attached underneath each recommendation where one is made.

2.3 Trade Competition

26. Trade competition is not considered relevant to the Variation 1 provisions of the Proposed Plan and submissions made on it.
27. There are no known trade competition issues raised within the submissions.

3 Consideration of Submissions and Further Submissions

3.1 Background to rezoning requests

28. There are 27 submissions on Variation 1 seeking medium density residential rezoning from 14 distinct individual submitters and 12 further submissions from 7 distinct individual further submitters. Most submitters sought rezoning under Variation of either areas proposed for medium density residential at the time of notification, or sought additional areas to be added.
29. The notified PDP contained a proposed medium density residential zone (PDP MDRZ) in the centres of Rangiora and Kaiapoi, within 800m of the town centres This zone allowed for medium density residential housing with a height of up to 12m, a maximum building coverage of 55%, and a range of other building standards that were similar to the central government imposed MDRS, however, it contained a minimum allotment size of 200m².
30. The MDRS, as applied through Variation 1, does not allow for a minimum allotment size, except where qualifying matters may require it.
31. In 2021, the RMA Enabling Housing Amendment Act (RMEHA) required all tier 1 councils to amend their District Plans through an Intensification Planning Instrument (IPI) in Waimakariri District Council's case, Variation 1, to give effect to the MDRS in all relevant residential zones. The MDRS itself is a set of specific provisions in schedule 3A of the RMA which must be incorporated into plans. This includes objectives, policies, and specified activity standards and notification enabling land use and subdivision for up to 3 residential units.
32. The bulk of the content of Variation 1 will be discussed in the s42A report for hearing stream 7, however, Variation 1 also rezoned land to medium density residential zones in the NER and SWR development areas, which had immediate legal effect, and received submissions requesting rezoning.

3.2 Overview

3.2.1 Report Structure

33. In accordance with Clause 10(3) of the First Schedule of the RMA, I have undertaken the evaluation firstly on a topic and issues basis. Most submissions focused on topics and issues, rather than specific provisions, however there are some submissions that have sought specific change to notified provision. Where submissions have sought specific changes I have addressed these in the specific changes section.
34. I consider that this report structure allows the reader to understand the complexities of the medium density housing intensification topic before the specifics of how it is implemented in policy provisions is evaluated.
35. I acknowledge that the Enabling Housing Amendment Act provisions are complex and challenging to analyse and implement. Where there is uncertainty in what a provision means, I have explained what I believe to be the uncertainty and outlined my interpretation. I have also sought legal advice where necessary.
36. The following evaluation should be read in conjunction with the summaries of submissions and the submissions themselves. Where I agree with the relief sought and the rationale for that relief, I have noted my agreement, and my recommendation is provided in the summary of submission table in Appendix B. Where I have undertaken further evaluation of the relief sought in a submission(s), the evaluation and recommendations are set out in the body of this report. I have provided a marked-up version of the Chapter with recommended amendments in response to submissions as Appendix A.

37. **This report assesses and makes recommendations on rezoning submissions made under Variation 1 only. It does not consider the substantive content of Variation 1, which will be considered in my s42A reports for hearing stream 7.**

3.2.2 Format for Consideration of Submissions

38. For each identified topic, I have considered the submissions that are seeking changes to the Proposed Plan in the following format:
- Topics and issues raised by submitters.
 - Assessment of provisions and specific matters raised by submitters.
 - Recommendations .
39. The recommended amendments to the relevant chapter/s are set out in in Appendix A of this report where all text changes are shown in a consolidated manner.
40. **I note the cultural advice received from Maahanui Kurataiao Ltd on behalf of Runanga requested on the Proposed Plan.**
41. I have tried to ensure as much consistency in the technical assessments between the s42A report on the Proposed Plan and this report on the Variation. Where there are differences in content I have **bolded** them.

3.2.3 Potential updates between publication of s42A report and hearing

42. I expect that following the publication of my report, that pre-hearing meetings may occur. Where these occur and where it requires updates to my report, I will present this in my summary at the beginning of the hearing, along with any updates to the s42A in my Rights of Reply.

3.3 Policy and planning context for rezoning

43. The policy and planning context for rezonings is complex, and I outline my considerations of the higher order documents below, with a recommendation on how to apply them in the context of rezoning applications.
44. In respect of zoning, s77G RMA required Tier 1 Councils to undertake the following, when developing an IPI:
- To incorporate the MDRS into every relevant residential zone (s77G(1)), including where its incorporation may be inconsistent with any objectives or policies in the CRPS;
 - Allowed for the creation of new residential zones or amendments to existing residential zones (s77G(4)).
45. I note the other general requirements of the RMAEHA in s77G which apply to Variation 1 generally, which will be discussed in hearing stream 7.
46. In implementing its tasks under s77G through Variation 1, applied the MDRS by upzoning existing residential zones in Rangiora, Woodend, and Kaiapoi. These zones were those that met that definition of relevant residential zone, as follows:

Means all residential zones; but

Does not include:

- *A large lot residential zone*

- An area predominantly urban in character that the 2018 census recorded as having a resident population of less than 5,000, unless a local authority intends the area to become part of an urban environment
- An offshore island
- To avoid doubt, a settlement zone

47. Council included the Bellgrove North and Townsend Fields development areas, in the North East Rangiora Development Area and the West Rangiora Development Area respectively. Parts of these areas were already consented for the first stages of those developments, and the IPI proposes the full development areas for rezoning.
48. I note that “urban environment” in the context of Variation 1, IPIs, and the MDRS, is the urban environment that “is, or is intended by the specified territorial authority to be, predominantly urban in character”; and “is, or is intended by the specified territorial authority to be, part of a housing and labour market of at least 10,000 people” (s77F, RMA).

3.3.1 Scope of Variation 1 in the context of rezonings

49. I consider that Variation 1 rezonings, in the overall context of the Proposed District Plan, stand-alone from any recommendations on PDP rezonings, as the processes are different in scope.
50. I requested legal advice the scope of Variation 1 in May 2023, which was supplied to the Panel in Appendix 6 of my memorandum of 1 June 2023¹. I have reattached this advice to this report, as Appendix E.
51. Based on this advice, I consider that Variation 1 rezonings are substantially more limited in scope than the PDP rezonings as:
- Council defines what the urban environment is, for the purposes of Variation 1, within the overall definition of ‘relevant residential zones’. A relevant residential zone must have been a residential zone at the time the Variation 1 was notified, or included as a new residential zone by Council as an additional discretionary action at the time Variation 1 was notified.
 - Council can only undertake one IPI (s 80G(1)(a) RMA).
 - A precautionary approach is required when determining that a submission proposing the rezoning of land beyond the areas being rezoned by a notified variation is within scope as an incidental or consequential further change. This requires robust s32 analysis of the merits of the proposal by that submitter, under the *Clearwater* test.
 - The *Clearwater* test requires the assessment of if a real risk that persons potentially affected by changes sought in a submission have been denied an effective opportunity to participate in the decision-making process.
52. On the basis of the legal advice, I consider that this means that I do not have scope, as a s42A reporting officer to now recommend additional new residential zones in response to submissions (i.e. in addition to the new residential zones included in Variation 1 as notified), apart from to resolve minor errors or omissions, as the Council has already specified its intention on which additional areas it intended to rezone.

Scope of Independent Hearings Panel

¹ https://www.waimakariri.govt.nz/__data/assets/pdf_file/0015/137130/Memo-to-Commissioners-on-Scope-of-Proposed-District-Plan-and-Variation-1.pdf

53. The Independent Hearings Panel has slightly different scope. Under Cl 99(2), Sch 1 RMA, the IHP's recommendations:
- Must be related to a matter identified by the panel or any other person during the hearing;
 - Are not limited to being within the scope of submissions made on the IPI;
54. In the context of rezonings, I interpret this to mean that the scope of relevant residential zones remains as notified in the IPI, but that the IHP is not limited to addressing matters raised by submissions, provided the matter is still within scope of the RMAEHA provisions, the MDRS, and the Variation 1 itself. An example of where this additional non-submission scope might be used is in addressing minor errors and omissions, and/or ensuring overall consistency of a Variation with the MDRS.
55. I note in undertaking this assessment that submitters may wish to present their own interpretations, however, my recommendations progress from what I have stated above.

4 Rezoning requests in and around Rangiora

56. There are 19 submitters requesting rezonings in and around Rangiora. These submissions primarily fall within the future development areas, but there are exceptions.

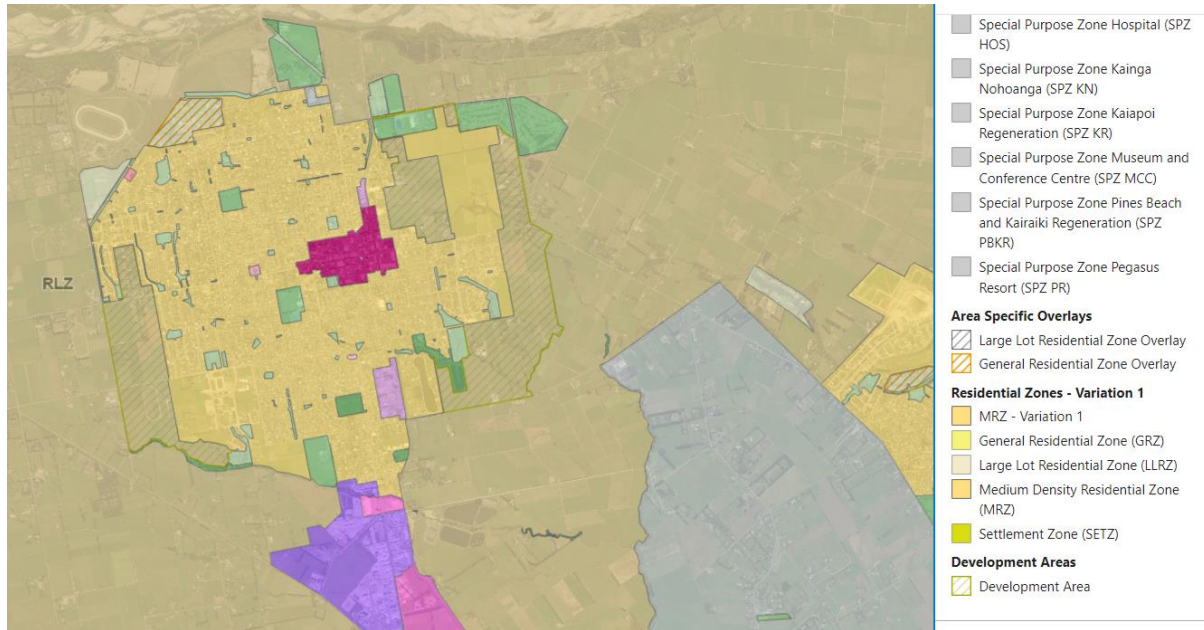


Figure 1 Location of Rangiora rezonings

57. I have categorised the submissions in blocks based the relevant development area, beginning with the West Rangiora development area and moving clockwise around Rangiora from west to the south-east.

5 West Rangiora

5.1.1 Description

58. West Rangiora is outlined below. All of the residential rezoning requests in this area are within the West Rangiora new development area, which is the green hatched area in the south-west of Rangiora as outlined below:

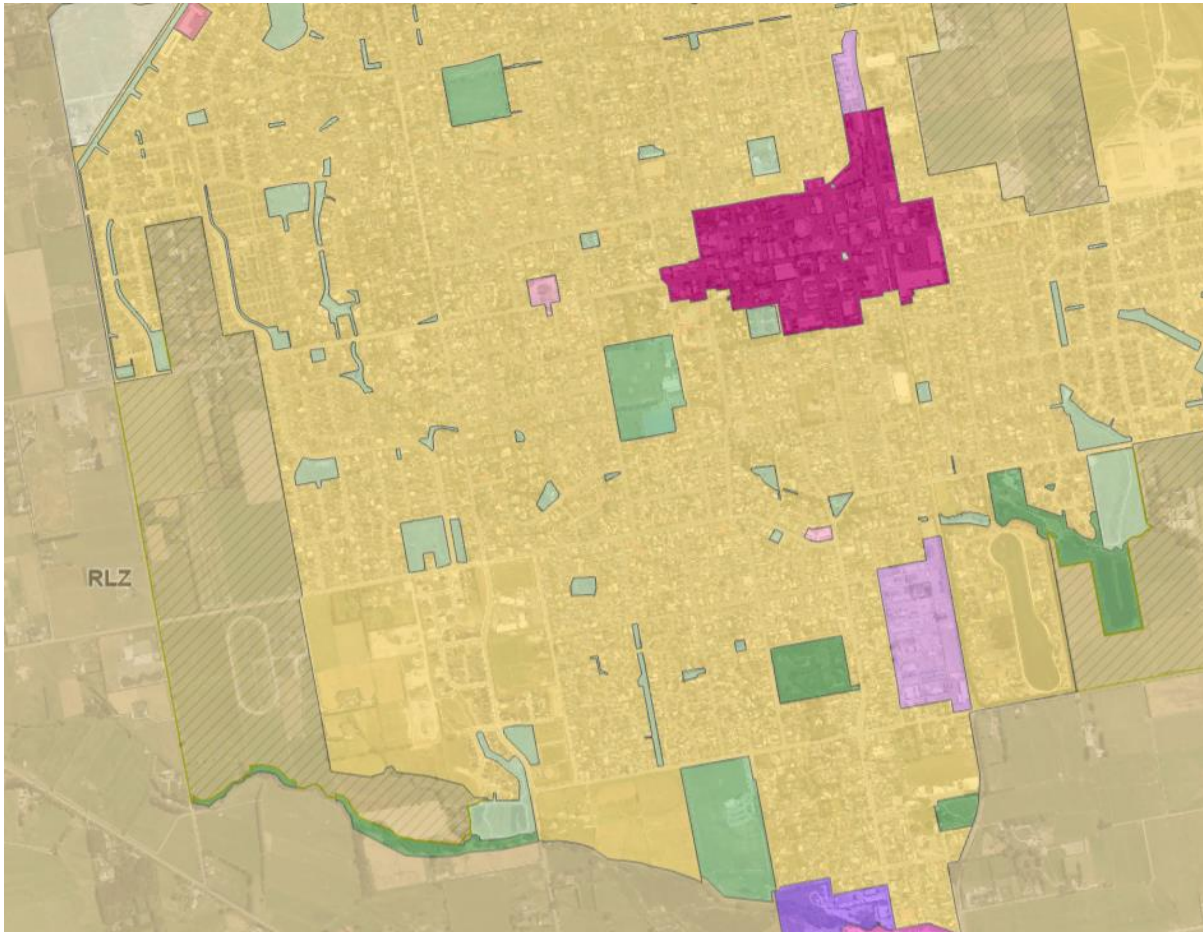


Figure 2 West Rangiora new development area

59. The West Rangiora new development area is a block of land on the west of Rangiora bounded between the existing edge of the town in the east, Lehmans Road in the west, and Southbrook Stream in the south. It is currently zoned as rural in the operative district plan, and proposed in the PDP as RLZ, with a new development area (FDA) overlay that corresponds to the FDA overlay in Map A of the CRPS.
60. The West Rangiora new development area is a block of land on the west of Rangiora bounded between the existing edge of the town in the east, Lehmans Road in the west, and Southbrook Stream in the south. It is:
- Currently zoned as 'rural' in the operative district plan;
 - Proposed in the PDP as RLZ;
 - Covered by a new development area overlay that corresponds to the FDA overlay in Map A of the CRPS.
 - Within the projected infrastructure boundary, as set out in Map A of the CRPS.

- Contains an ODP in the notified PDP, correlating to the structure planning work undertaken prior to the insertion of this area in Map A, CRPS, as part of Change 1 to the CRPS.
- **Variation 1 proposes a small additional area of land in the southwest portion of this block to be medium density residential – an area referred to as the south-west Rangiora development area, containing the area of the Townsend Fields development.**
- **The majority of this area was not proposed for rezoning under V1.**

61. The West Rangiora development area can be broadly categorised into four blocks, as follows:

- The north block – usually referred to as the ‘Brick Kiln Lane’ area, to the north of Oxford Road.
- The middle block – between Oxford Road and Johns Road.
- The south block – between Johns Road and the Southbrook Stream. Part of this area is under development and has been referred to as the South West Rangiora development area.
- SWR dev area - the part of the south block that was rezoned under Variation 1 and is currently under development as Townsend Fields (and which appears as yellow MDRS on the map above).

62. I move through these blocks from north to south.

5.2 South Block



Figure 3 West Rangiora development area "South Block"

5.2.1 Description and Matters raised by submitters

63. The 36.1ha south block between Townsend Fields in the east, the Southbrook Stream in the south, Lehmans Road in the west, and Johns Road in the north is made up of the following parcels:
- Carolina Homes Limited – 1 block 6.58ha, 5.98 ha, 4.45ha, 4.52ha,
 - 199 Johns Road Limited – 4.53 ha
 - Townsend Fields Limited (check to see if this has already been rezoned?) – 1.51ha
 - Skelley – 0.91 ha
 - Allan Downs Ltd – 4.18 ha
 - Robert Jack Paterson – 8.09 ha
 - Bowden, Walsh, Campbell, Paterson section (Paterson Family Trust) – 7.89 ha
 - M & J Schluter – 12.36 ha
 - John and Coral Broughton – 4.03 ha
64. **A small part of this area, Townsend Fields, is proposed for rezoning under Variation 1 as medium density residential**
65. The active developer in this area, Townsend Fields Ltd, has dealt with the principal ODP requirements of infrastructure and roading layout at the plan level, but is progressing the development by way of consents for each individual block of land. The area of Townsend Fields Ltd activity is that shown by the Variation 1 overlay.
66. For the Townsend Fields area, the consents have largely superseded the operative and proposed zoning, but the land technically remains zoned as rural within the Operative District Plan, and proposed as rural lifestyle in the PDP, with a development area overlay, and with a proposed rezoning to V1 MDRZ under Variation 1 for the 20ha or so of land associated with Townsend Fields.
67. The development area continues west of Townsend Fields, to Lehmans Road, and south to the Southbrook Stream.
68. 199 Johns Road et al [V1 58.1, V1 58.2, V1 58.12] seek amendments to the SWR development area. Note errors in my assessment of this submission in the DEV report.
69. This is supported with a further submission from FS Eliot Sinclair and Partners Ltd [V1 FS 12], and opposed by FS Waka Kotahi NZ Transport Agency [V1 FS 3].
70. Eliot Sinclair [V1 58.3, V1 59.3] support the rezoning of 163,191, 199, and 203 Johns Road, Rangiora to general residential zone and medium density residential zone and request that no qualifying matters apply to the site.
71. John and Coral Broughton [V1 54.1, V1 54.3, V1 54.4] seek to rezone 113 and 117 Townsend Road (8.4 ha) from rural lifestyle to general residential and medium density residential. This is supported in further submissions by the R J Paterson Family Trust [V1 FS 19].

5.2.2 Assessment

Natural hazards, geotechnical, three waters

72. In respect of the overall area², Mr Aramowicz states:

- *The southern part of the ODP site is susceptible to flooding*
- *Given an earth bund and site filling would be needed to protect the south half of 237 Johns Road (s407) and all of 20/24 Angus Place (s233) and the south parts of 205 and 217 Johns Road, and the construction of a bund and filling within the main South Brook channel is likely to result in an increased flood hazard to other property, it is unlikely that these areas (i.e the southern parts of the West Rangiora Outline Development Plan Area) can be used for residential land use, however the land could be used for stormwater management purpose.*

73. In respect of the Ashley River breakout scenario, which occurs on part of the south block, from Mr Bacon³.

- *As discussed, I have reviewed the proposal to rezone the land at 117 and 113 Townsend Road (now 20 and 24 Angus Place) in respect to the underlying flood hazard from an Ashley River Breakout.*
- *These properties are both under the flowpath from an Ashley River breakout and are shown as having significant areas of Medium Flood Hazard in both the 200 year and 500 year flood events. Under an Ashley River breakout scenario both parcels of land would be subject to significant flood velocities exceeding 1.0 m/s. Refer to Figure for the model results.*

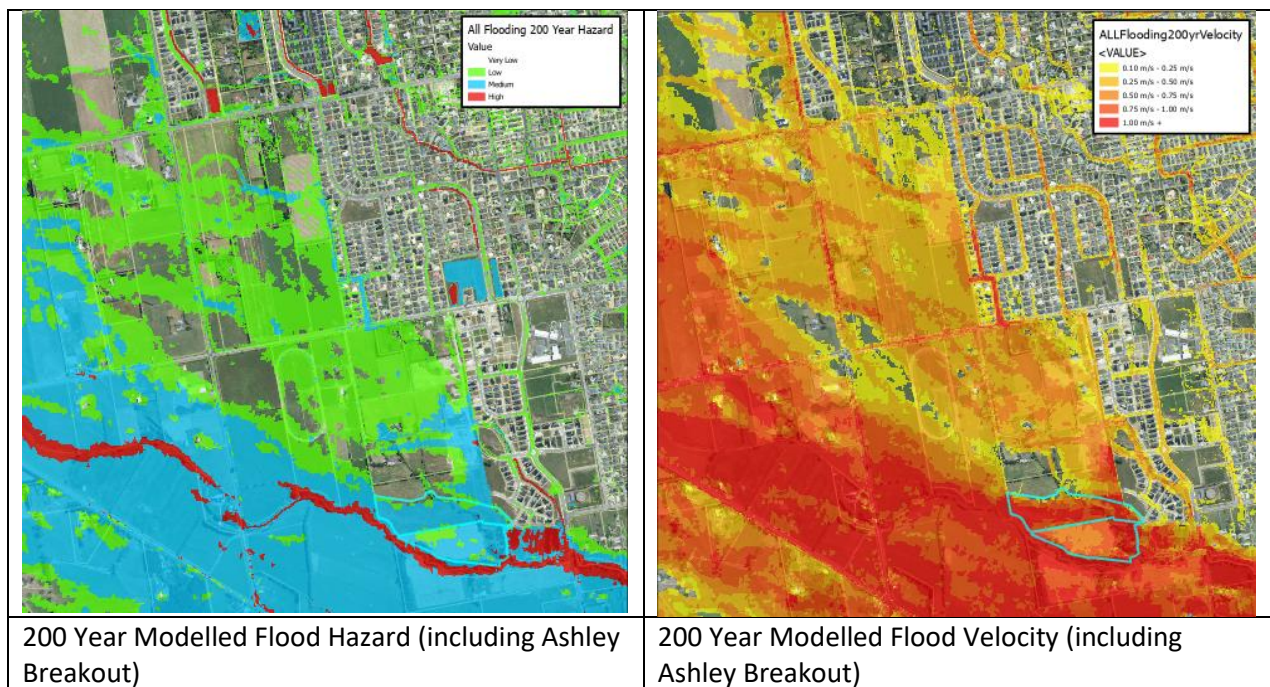


Figure - 200 year Model Results

- *In my opinion it would be impractical to mitigate this flood hazard. Any attempts to raise the land or provide for a bund to the west would impact severely on neighbouring properties to the south and would represent an obstruction to the Ashley River Breakout pushing the primary breakout channel further south. Without better understanding the impacts of such works on these neighbouring properties and the larger flood channel it would be inappropriate in my opinion for the Council to support a residential rezoning request in this area.*
- *It is noted that Townsend Fields have previously undertaken works to mitigate a much smaller flood hazard to the north of these sites by constructing a temporary bund and diverting floodwater through*

² Mr Aramowicz, para 59 and para 76

³ Memorandum of 12 July 2024

this area. It is also noted that future plans to develop land east of Lehmans Road may also feature a bund to divert secondary flowpaths from the Ashley Breakout.

- The key difference with the Townsend Fields works and the future planned works along Lehmans Road is that it is mitigating secondary flowpaths from the breakout flow and diverting them back into the primary channel. Any works on the properties at 20 and 24 Angus Place would be interfering and diverting the primary flood channel.
- I also note that the dynamics of the flood hazard in West Rangiora is very different to the flood hazard in Northeast Kaiapoi. In the Northeast Kaiapoi area the flood hazard on the undeveloped land has been assessed as 'High' and is predicted to have much higher flood depths than those predicted in the West Rangiora area from the Ashley Breakout. The flood hazard in West Rangiora is largely due to fast moving water with moderate flood depths. However the flood hazard in Northeast Kaiapoi is largely due to deep ponding water with very low velocities from a combination of Localised Rainfall and Coastal Inundation.
- The proposed mitigation measures for Northeast Kaiapoi rely largely on simply raising the land and the effects from this have been assessed and demonstrated to be less than minor on the neighbouring properties. Recent construction of a new flood pumpstation by the Council under the Government's Shovel Ready programme has further helped in providing mitigation for these effects in Northeast Kaiapoi.
- The flood effects from partially obstructing and diverting the primary Ashley Breakout flood channel in West Rangiora have not been assessed.

Transport

74. Council's transport engineering advice, from Mr Binder, is as follows:

- I note that while the existing roading network would provide service for private motor vehicles generated by ad hoc development, I consider there is no appropriate walking or cycling infrastructure to connect ad hoc development to the existing walking/cycling network. By definition, this also applies to PT access, as new PT service is unlikely to occur for limited ad hoc development.
- I also consider that the medium density areas explicitly noted in the operative ODP are important to maintain as this density needs to be concentrated along a "primary road" in order to best create the demand for future PT service and walking and cycling facilities. Dispersed medium density development is not as efficient to service with new walking, cycling, or PT networks.
- I have reviewed the existing and future transport provision around 20 and 24 Angus Place (sections subdivided as part of the Townsend Fields development) as well as the South West Rangiora ODP. The ODP is excerpted below:

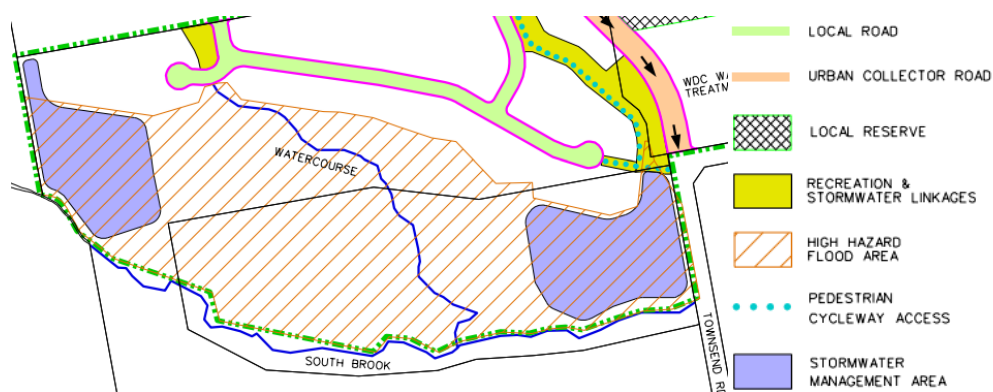


Figure 1: South West Rangiora ODP (excerpt)

- I note the land in 20 and 24 Angus Place was designated a “high hazard area” and the associated local road network was laid out without access across the tributary of the South Brook. I understand the master plan for Townsend Fields (last updated in 2021) generally adheres to the ODP roading network in this area, i.e., access across the tributary is chiefly cut off by residential sections, as shown below.



Figure 2: Townsend Fields master plan, 2021 (excerpt)

- I also note that the land to the south of the South Brook is zoned Rural and lays outside Rangiora’s Infrastructure Boundary. I consider that the land south of the South Brook tributary is not well-connected with the Townsend Fields development and will not likely be connected to any development to the south. As such, I consider intensified residential development in this area to be a poor outcome from a transportation perspective.

Greenspace

75. Mr Read’s advice on greenspace is as follows:

- The South-West Rangiora ODP area south of Johns Road is estimated to require a 0.6-hectare neighbourhood park reserve to service any future change to residential zoning and its anticipated residential population. The current rectangular park space shown on the ODP is shown as approximately 0.3ha in size. To be reliably indicative of requirements it should be doubled in area. In terms of location, the park is appropriately located to serve future development.
- Waimakariri District Council’s level of service guidelines for neighbourhood park access in urban and suburban areas require most residents to be within 500m, or a 10-minute walk, of a neighbourhood park; and 1.0ha of park space is to be provided per 1,000 residents (approx. 420 dwellings). In addition, the minimum viable size for a neighbourhood park is 0.3ha.
- Note that the recently developed Townsend Road Reserve (neighbourhood park) is not clearly identified on the ODP. The underlying resurveyed lot boundaries are shown, but the park space (the NW parcel) is not clearly distinguished (see attachment for an accurate depiction). This park is 0.9ha in size and has been accounted for in overall ODP park space provision.
- The remaining green spaces indicatively shown on the ODP are representative of the spaces and linkage connections expected.

Urban design

76. I asked Mr Edward Jolly to update the overall ODP for the West Rangiora area to reflect the flooding issue, the additional park requirements (with catchment distances), and to show future land use on the Council block. Mr Jolly is a qualified and experience urban designer.

Applicant supplied expert evidence (in submission for 199 Johns Rd et al [266.1])

Person/Organisation	Evidence type
Mr Cameron Mars	Infrastructure
Firas Salman	Geotechnical
Jess Zollhofer	Contaminated Land
Kieran Stuart	Planning

Assessment of evidence.

Natural hazards

- 77. I consider that most of the area is at low risk of flooding, receiving between 0.10m to 0.25m of additional water, but there are areas of medium risk, with between 0.25m to 0.75m of additional water. Some of this is localised ponding, or secondary flow paths arising from the primary Ashley River breakout. As Mr Bacon states, there are mitigation options to ensure that water from secondary breakout paths is diverted around the development area to ensure that the water then enters back into the primary flow path.
- 78. There is a small area of high risk, within the Southbrook Stream channel and its immediate surrounds.
- 79. However, as explained by Mr Bacon and Mr Aramowicz above, the nature of the flooding in this area requires consideration. The southern part of the area is modelled to receive fast moving floodwaters in the event of a breakout and/or breach of the Ashley River flood protection scheme to the north west. Thus whilst the depths of the water are moderate, the speed of the water creates a different type of hazard from static ponding or slower moving waters.



Figure 4 Flood risk in West Rangiora

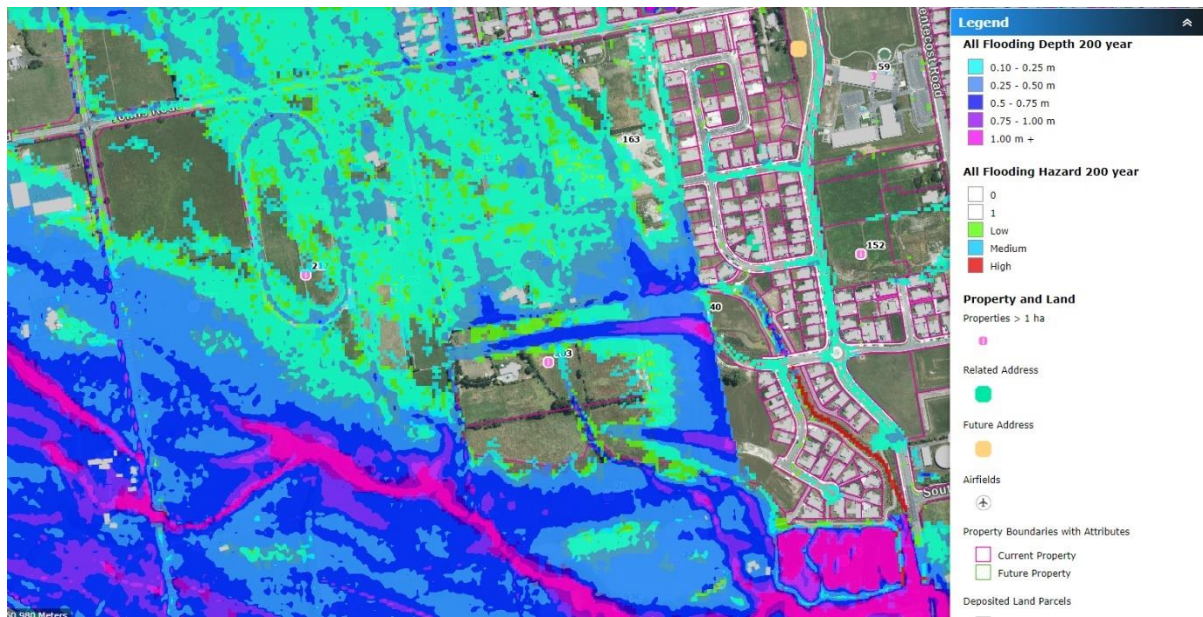


Figure 5 Modelled flood depth in West Rangiora

80. For the primary flow path itself, which is along and adjacent to Southbrook Stream, Mr Bacon considers that there are no practical mitigation measures. Mr Aramowicz also states this, noting that mitigation measures would likely result in displacement and thus further flood effects on land further south.
81. I consider that the notified ODP does not show this risk clearly for the areas adjacent to the Southbrook Stream, with some properties adjacent to the Southbrook Stream show on the PDP ODP with a future land use of general residential. The proposed rezonings in Variation 1 left this area out, for the reasons stated by Council engineers.
82. I note that for most of the lower lying areas, these are either proposed for stormwater management areas under the relevant ODP or blue-green linkages, or would become esplanade reserves due to their adjacency to the Southbrook Stream. However, not all of the areas are classified as such, and as technical evidence on the flooding hazard considers that there are no practical mitigations for this risk, that I do not consider it can be rezoned as medium density residential.
83. However, as it may provide greenspace or stormwater capacity for the wider development, it may still be able to be rezoned. Even if I were to not recommend any rezonings, the land would remain as rural lifestyle, within the development area. I do not have scope to remove a development area overlay.

Greenspace

84. I agree with Mr Read that the size of the proposed neighbourhood park needs to be doubled from 0.3ha to 0.6 ha.

Transport

85. I agree with Mr Binder about the lack of specificity on cycleways and pedestrian access, particularly in the western part of the area. The eastern part of the area has two east-west shared roads and cycleways, but these do not continue to Lehman's Road in the west.
86. Mr Jolly has made the following design recommendations on these:
- A larger neighbourhood park in the existing location.
 - Another neighbourhood park is located in the south west of the area.

- Extended east-west corridors that are multi-modal.
- A proposed drain alongside Lehmans Road.

87. Mr Jolly’s changes are below that incorporate the above matters:

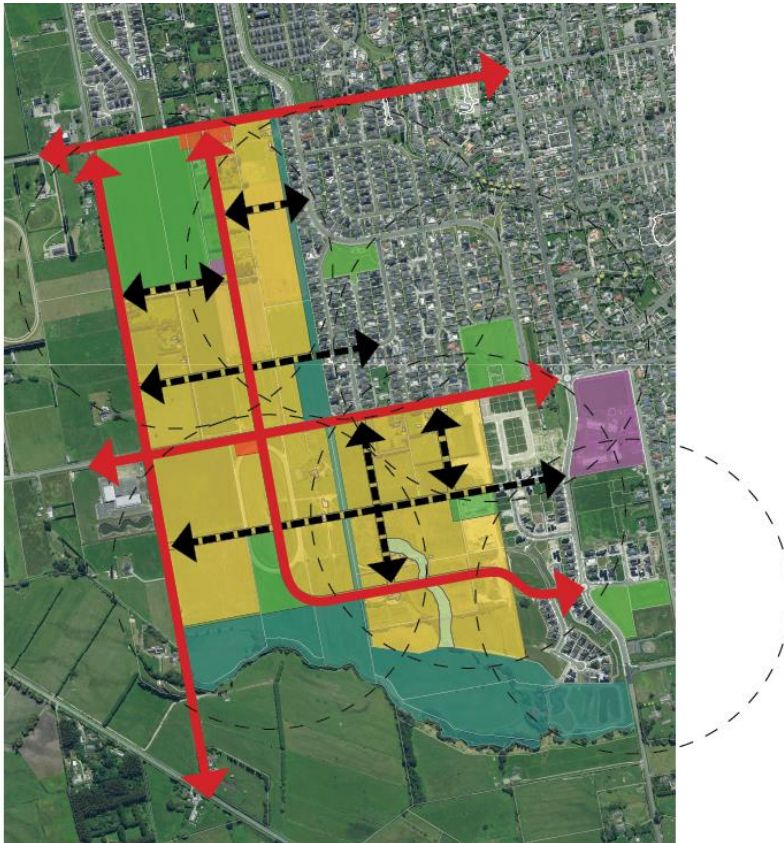


Figure 6 Proposed ODP changes

Discussion

88. I assess the scope for rezoning from the submissions below:

Submitter	Number	Land Included in submission	Zoning sought
199 Johns Road et al	V1 58.1, V1 58.12	163,191, 199, and 203 Johns Road, Rangiora	General residential and medium density residential zone
John and Coral Broughton	V1 54.1, V1 54.3, V1 54.4	113 and 117 Townsend Road	General residential and medium density residential
Eliot Sinclair	V1 58.3, 58.2, 59.3	Townsend Field properties	General residential and medium density residential

89. I note that that Carolina Homes Limited property and the Broughton property (20 and 24 Angus Place) were left out of the Variation due to flooding issues from a potential Ashley River breakout scenario, and Council’s expert Mr Bacon considers that this land is unsuitable for residential development, with no appropriate mitigation options being available.

90. In respect to the scope of the Variation itself, I consider that this land was included within the Variation, and that the submitter also seeks the rezoning of this area under the Variation. There are no submissions seeking changes.
91. I do not consider the submissions seeking 20 and 24 Angus Place to be added to the medium density residential zone are within scope of the Variation, as these are outside of the zoning area as notified.
92. I can thus recommend that the area is rezoned as V1 medium density residential under Variation 1, as notified.

5.2.3 Recommendations

93. That the following outcome for submissions occurs:
- John and Coral Broughton [V1 54.1, V1 54.3, V1 54.4] is **rejected**
 - Further submissions FS Waka Kotahi NZ Transport Agency [V1 FS 3], FS Eliot Sinclair and Partners Ltd [V1 FS 12], R J Paterson Family Trust [V1 FS 19] are **rejected**
 - 199 Johns Road et al [V1 58.1, V1 58.2, V1 58.12] , Eliot Sinclair [V1 58.3, V1 59.3] are **accepted in part [excluding 20 and 24 Angus Place]**

5.2.4 Amendments

94. There are no changes to Variation 1 arising from these recommendations

5.3 Middle Block



Figure 7 - West Rangiora development area "Middle Block"

5.3.1 Description and Matters raised by submitters

95. The 38.1ha middle block between Acacia Avenue in the east, Johns Road in the south, Lehmans Road in the west, and Oxford Road in the west. The land can be generally described as flat but has a slight fall from the northwest down to the southeast. It is made up of the following parcels:

- Dalkeith Holdings Ltd (212 Johns Road) – two blocks making up 18ha in total
- Nick and Cilla Taylor (63 Oxford Road) – one block of 2.4ha
- Alphonse and Elisabeth Sanders (83 Oxford Road) – one block of 2.4ha
- Miranda Louise Hales (126 Lehmans Road) – one block of 5.5 ha.
- Waimakariri District Council (89 Johns Road) – one block of 9.8ha

96. **It is not proposed under Variation 1 as medium density residential**

97. Dalkeith Holdings Ltd [V1 57.1, V1 57.3] seek to rezone 212 Johns Road and 63 Oxford Road to medium density residential.

98. Miranda Hales [V1 55.1, V1 55.3, V1 55.4] seeks to rezone 126 Lehmans Road to medium density residential.

5.3.2 Assessment

Natural hazards, geotechnical, three waters

99. Council engineering advice on these⁴ is as follows:

- *There are no significant constraints that relate to natural hazards, geotechnical conditions, or the ability to provide stormwater, wastewater and potable water services to the site that would prevent the proposed GRZ and MDRZ land use.*

Transport

100. Council advice on transport is as follows, as stated by Mr Binder⁵:

- *Whilst the existing roading network would provide service for private motor vehicles generated by ad hoc development, I consider there is no appropriate walking or cycling infrastructure to connect ad hoc development to the existing walking/cycling network. By definition, this also applies to PT access, as new PT service is unlikely to occur for limited ad hoc development.*
- *Considers that the medium density areas explicitly noted in the operative ODP are important to maintain as this density needs to be concentrated along a “primary road” in order to best create the demand for future PT service and walking and cycling facilities. Dispersed medium density development is not as efficient to service with new walking, cycling, or PT networks.*

Parks and greenspace

101. Council advice on parks and greenspace is as follows, as stated by Mr Read:

- *Approximately 0.7ha will be required for a neighbourhood park, in the south east corner of the Council owned land at 89 Oxford Road.*
- *Green linkages and stormwater management areas are in addition to this [not counted within the 0.7 ha].*

Urban design

102. Council obtained expert advice from Mr Edward Jolly:

- *Green space provision in the ODP is relatively limited and sparsely distributed through the area. The provision of open spaces is considered minimal both in terms of quantity and size. It is recommended that more substantial open space provision is provided within the ODP. Figure 2 below illustrates potential improvements to the ODP in terms of allocation of open space, size and distribution. Note the dashed circles in the diagram represent walking catchments of 400m or a 5 minute walk suitable for medium to large openspace. The key recommendations for additional openspace provision include:*

⁴ Mr Aramowicz, para 59 and para 76

⁵ Mr Binder, pg 1 and pg 2

- *A large recreational space in the northern extent of the ODP between Oxford Road and the first east-west secondary road to replace the proposed pocket park adjacent to the spine road. It is also recommended that the community facility (purple square) is better integrated with the open space rather than separated by residential development.*
- *A larger openspace in the southwest quadrant to replace the pocket park in this location, allowing greater coverage and access for future residential development.*
- *An additional openspace on the important east west secondary street connection between Te Matauru Primary School and Lehmans Road.*

Applicant supplied expert evidence

<u>Person/Organisation</u>	<u>Evidence type</u>
Mr Ivan Thomson	Planning
Mr Steven Roberts	Geotech
Ms Hollie Griffiths	Contaminated Land

Discussion

103. As stated above in the south block section by Council engineers, whilst the south block receives the highest water depth, the most cost-effective engineering options for reducing some of the potential effects on the south block are with engineering works on the middle block. Thus, there is an interest from the south block landowners and developers (Townsend Fields, 199 Johns Rd et al) in how the land in the middle block can offer solutions.
104. Three options have emerged from discussions with Ms McKeever for 199 Johns Road et al:
- Option 1 – on site or near site flood protection measures that significantly reduce localised water depth in flood events on the site, and provide some but not complete mitigation of an Ashley River breakout scenario.
 - Option 2 – a proposed secondary bund on the Ashley River, in the vicinity of the Rangiora airport and Rangiora racecourse, costing about \$15M that provides additional protection. This bund is proposed for inclusion in the ECan long term plan 2024-2034, and would avoid this risk entirely.
 - Option 3 – both options, noting that Option 1 is largely outside of the scope of the district plan review process.
105. The localised flooding risk on land to the north of Oxford Road was mitigated by the construction of a moderate depth swale drain along Lehmans Road (shown below), and I consider that if this was extended down Lehmans Road to Southbrook Stream, it would intercept much of the water entering the site. I consider that there is sufficient space in the Lehmans Road corridor for this drain to be constructed. I discussed the sizing and nature of the drain with the submitter and landowner, Ms Hales, who has expressed a preference for something that did not constrain access or views to her property, which is proposed for rezoning. This would indicate a preference for depth and width, rather than height. The ODP also proposes another drain on the eastern edge of the block, on the Dalkeith land, and I would suspect that the same limitations on height may apply here as well. It may be that both drains are required, or one drain, however, the outcome should be to be able to add flood capacity and is independent of what might happen with Option 2 – the proposed ECan secondary bund to the north.
106. Noting the request for a height limitation on any Lehmans Road drain expressed by the current landowner and submitter, the exact sizing and design of the drains would be subject to engineering advice, and would

happen at the time of subdivision consent, including potentially subdivision consent for land that is removed from the submitter, such as Townsend Fields.



Figure 8 Current Lehmans Road swale drain (adjacent to Westpark)

107. My understanding of the technical evidence and reports is that the ECan Ashley River secondary stop bank, if built, provides area-wide protection, extending well north and south of the West Rangiora new development area. However, this project is still subject to consultation, approval, and design before being built, and I do not consider that decisions on rezoning should be contingent upon it, and the Council engineering advice on flooding hazards on the specific site is also not contingent upon it being built, as the risk is low to moderate even without any further mitigation works
108. Council engineering advice indicates no engineering issues which would prevent the land from being rezoned as medium density residential. There are also no servicing issues.

Council block (9.8 ha)

109. The Waimakariri District Council is not a submitter, and has not sought rezoning of the land that it owns. The ODP indicates general residential and medium density residential land uses for this land. Mr Read has stated that additional land may be needed for parks and reserves, including further community or greenspace, with some of this block becoming residential. As such, I am recommending that the Council block appears in the ODP with shading to outline these potential twin future land uses, but the final extent of future land use for community and greenspaces uses has yet to be determined by Council in its landowner function.
110. Mr Jolly has noted the requirement for additional parks, and I also note that the exact nature of the final land use of the Council block has not yet been determined. I do not consider that all of it is required for parks or greenspace, but that all of it is suitable for medium density housing if required.
111. Mr Jolly has thus supplied amendments to the ODP that show these future options in respect of this land:

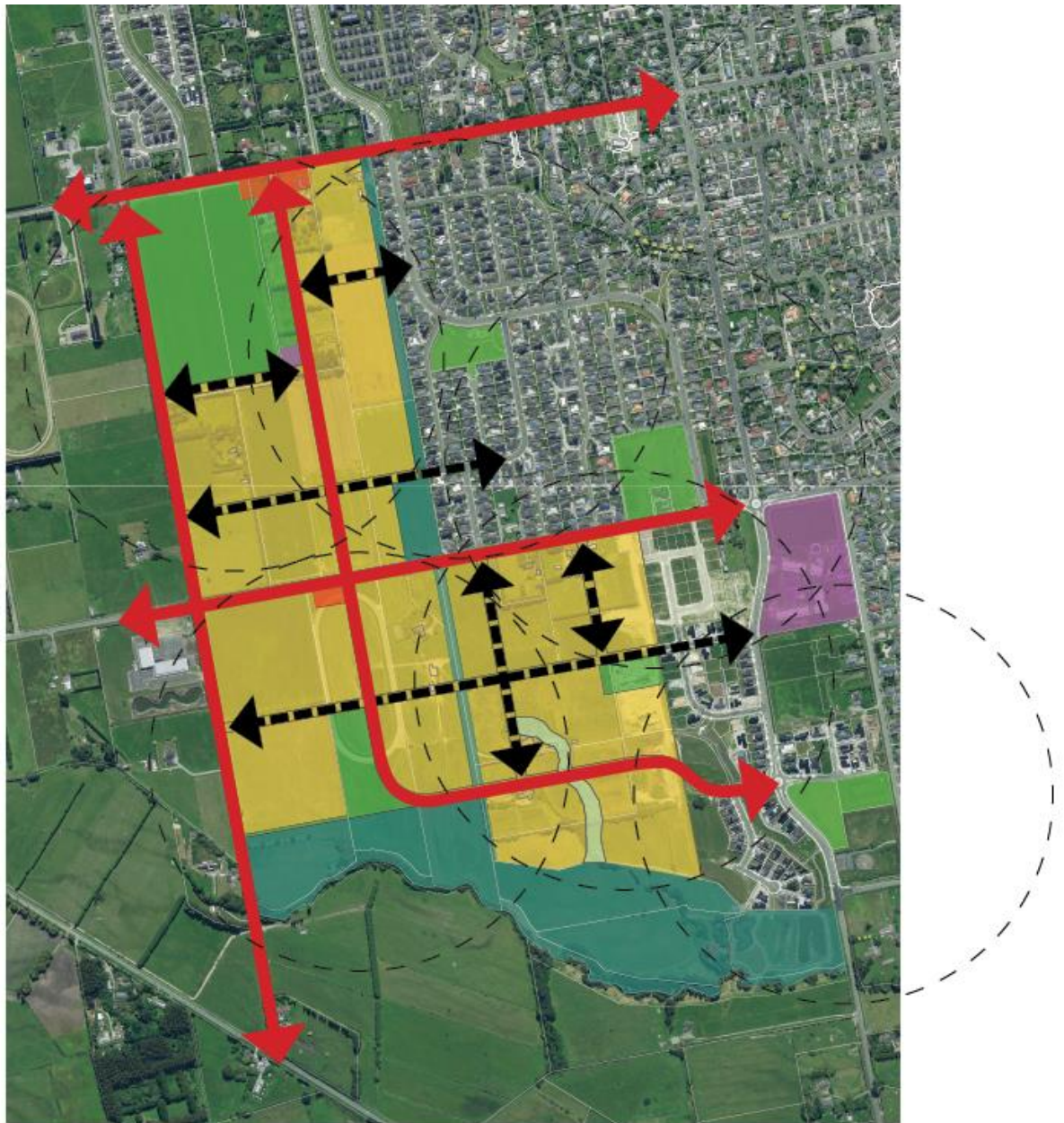


Figure 9 Proposed amendments to WR and SWR ODP

Overall assessment

112. I assess the scope for rezoning from the submissions below:

Submitter	Number	Land Included in submission	Zoning sought
Dalkeith Holdings	V1 57.1, V1 57.3	212 Johns Road and 63 Oxford Road	General residential and medium density residential
Miranda Hales	V1 55.1, V1 55.3, V1 55.4	126 Lehmans Road	General residential and medium density residential

113. I consider there is submission scope for upzoning 212 Johns Road, 63 Oxford Road, and 126 Lehmans Road, but not all of the block.
114. In respect to the scope of the Variation itself, I consider that this land was not included within the Variation, and as such, extensions to it, whether as a relevant residential zone, new residential zone, or an NPSUD Policy 3 area, are not within scope of the Variation. Variation 1 proposes no changes to the zoning or associated provisions for these properties.
115. As such as the submission is not “on” V1 in the scope of the notified variation.
116. Under the *Clearwater* and *Motor Machinist* tests. I consider that whilst there appear to be no insurmountable technical constraints to prevent V1 medium density residential land use on the site, I cannot be certain there are no real effects on affected parties that did not anticipate a full medium density residential land use at this location. These parties have had no opportunity to submit on the Variation in respect to this site being specifically included within it.
117. I do not consider there is scope to amend the boundaries of the ‘relevant residential zones’ within the Variation. As such I recommend that the submissions of Dalkeith Holdings and Miranda Hales are rejected.

5.3.3 Recommendations

118. That the following outcome for submissions occurs:
- Dalkeith Holdings Ltd [V1 57.1, V1 57.3] , Miranda Hales [V1 55.1, V1 55.3, V1 55.4] are **rejected**

5.3.4 Amendments

119. There are no changes to the Variation arising from these recommendations.

5.4 North Block/Brick Kiln Lane block

5.4.1 Matters raised by submitters

120. Ben Dormer [V1 40.1, V1 40.3] seeks to rezone 70 Oxford Road from RLZ to MDRZ, yielding 15 lots.

121. This is supported in a further submission from himself [FS V1 40.1].

5.4.2 Description

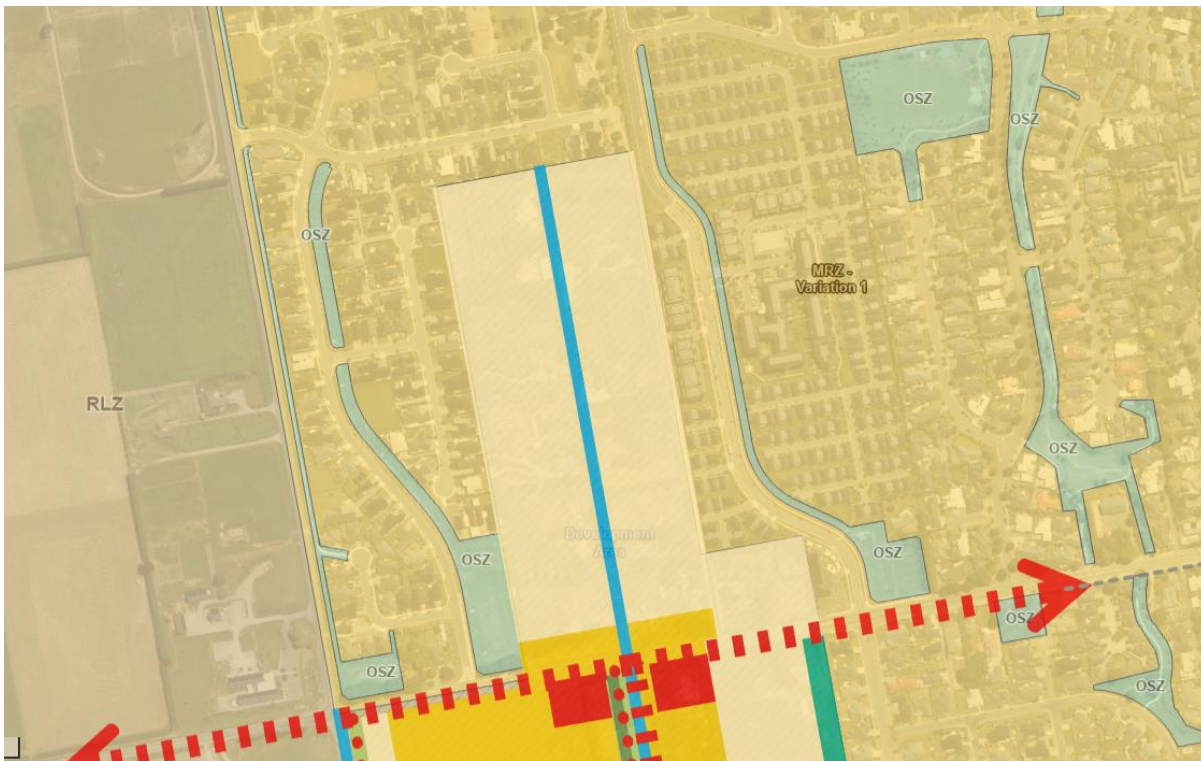


Figure 10 Brick Kiln Lane

122. The north block is commonly referred to as Brick Kiln Lane, due to the prominent feature of the area being an old pottery brick kiln and the lane itself. The land is “generally described as flat but has a slight fall from the northwest down to the southeast”⁶. It consists of a private access off Oxford Road, servicing about 10 parcels of about 1ha in size. It is an enclave of rural land surrounded on three sides by residential zoning, and the reason for it remaining thus far as rural land has been lack of intention of existing landowners to develop to date, and the issue of the deeds land. Also, the two private accesses are narrow and are not capable of servicing a greater traffic volume, and any greater traffic volume entering Oxford Road may present a hazard. Transport engineering advice is that any intersection work at this location, such as a roundabout, is too close to the adjacent intersection at Acacia Avenue/Charles Upham Drive. Any new transport access for the blocks would need to come from Charles Upham Drive through the property at 29 Brick Kiln Lane.

123. **It is not proposed under Variation 1 as medium density residential**

⁶ Mr Aramovicz, para 26

124. 70 Oxford Road, which forms the south-eastern corner of this block is also subject to a land use and subdivision resource consent application from Ben Dormer/Fusion Homes Ltd⁷, enabling up to 15 residential lots, including the existing dwelling, as follows⁸:

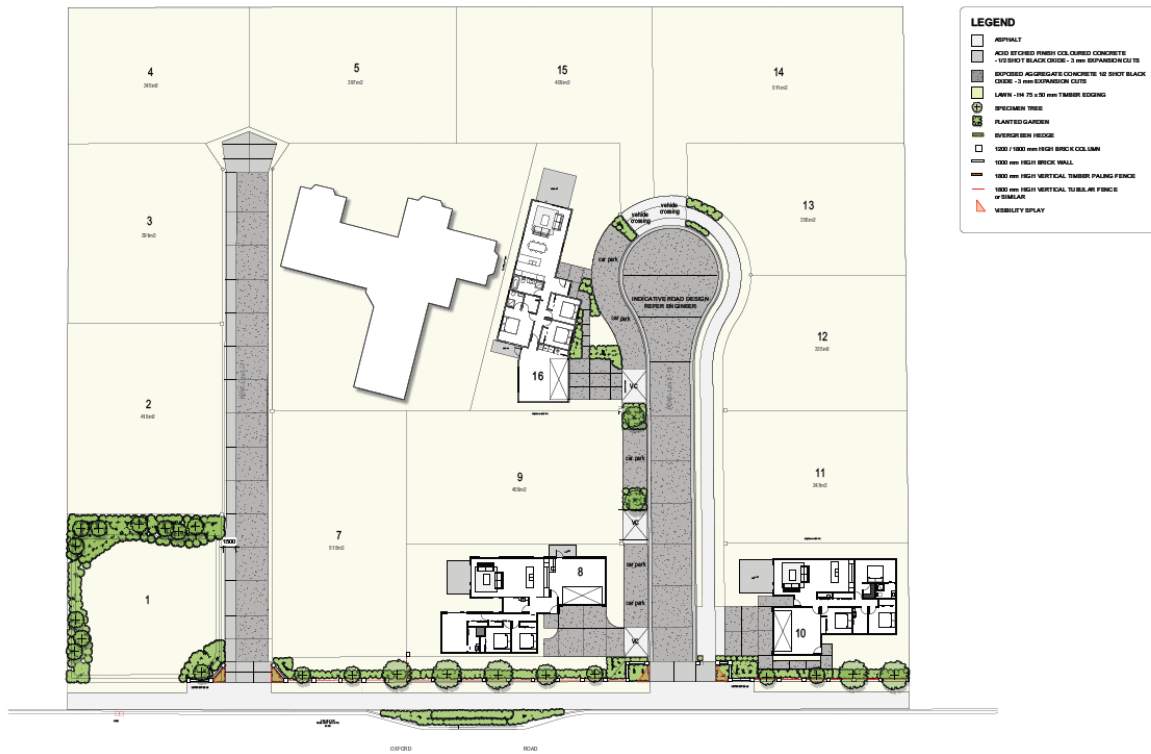


Figure 11 70 Oxford Road proposed layout

125. The block is currently serviced with reticulated wastewater from a pipe along Brick Kiln Lane, and with reticulated water from Oxford Road. If residential development was to occur on this site, there are no capacity restrictions within the network, although individual connections would need to be upgraded or replaced. Stormwater is currently disposed of on site.

5.4.3 Assessment

Natural hazards, geotechnical, three waters

126. Council engineering advice on these⁹ is as follows:

- *There are no significant constraints that relate to natural hazards, geotechnical conditions, or the ability to provide stormwater, wastewater and potable water services to the site that would prevent the proposed GRZ and MDRZ land use.*

Transport

127. Mr Binder’s recommendations on transport¹⁰ are as follows:

⁷ As of the time of writing, the application is still being processed

⁸ Lot 1 on this subdivision plan may be needed for a stormwater management area

⁹ Mr Aramowicz, paras 27-30

¹⁰ Mr Binder, pg 1

- *Considers it critical to implement an ODP for this area to manage infrastructure development over the individual lots that make up the entire site, noting that they may be intensified at different times, and do not all have direct road access to Oxford Road.*
- *In order to preserve the priority of Oxford Road as a strategic road, do not create any additional accesses onto Oxford Road. Instead, connect Brick Kiln Lane to existing local roads.*
- *Coordinate development of 70 Oxford Road, which has an active resource consent application, with the wider Brick Kiln Lane block*
- *Notes that there is no provision for an arterial transport route north of Oxford Road.*

Parks and greenspace

128. Council advice on parks and greenspace is as follows:

- *Waimakariri District Council already has more than adequate Neighbourhood Park category green space to meet its level of service requirements for residents of the NW Rangiora area between West Belt and Lehman's Road north of Oxford Road. Waimakariri District Council's level of service guidelines for neighbourhood park access in urban and suburban areas require most residents to be within 500m, or a 10-minute walk, of a neighbourhood park; and 1.0ha of park space is to be provided per 1,000 residents (approx. 420 dwellings). In addition, the minimum viable size for a neighbourhood park is 0.3ha. Other than stormwater and drainage related green space reserves, the only community green space required within the Brick Kiln Lane ODP area is provision of recreation and/or ecological linkages to facilitate non-motorised off-road connectivity (internal and external), landscape amenity and opportunities for resident social interaction.*

Discussion of 70 Oxford Road

129. For 70 Oxford Road the land use and subdivision consent is non-complying under the Operative District Plan, as it is seeking a higher density than the 4ha minimum lot size in the rural lifestyle zone. The proposed density is about 9.6 houses/ha, but will likely achieve at least 12 houses/ha, once the potential for future multi-unit development is taken into account. The proposed plan ODP recommendations are for 15 houses/ha, except where constraints limit that density, in which case 12 houses/ha is appropriate. I note that the lower density that will be achieved in the first instance as a result of the consent is only a lower density in the context of the PDP, it is a substantially higher density than expected under the Operative District Plan provisions.

130. On the basis of the technical advice, I do not consider there is any technical constraint to upzoning the site provided that Rangiora-Woodend Road is not subject to a proliferation of accessways, and there is scope from the Dormer submission to consider upzoning the land from rural to V1 MDRZ.

Overall assessment

131. **I consider there is scope from the submission of Ben Dormer to consider the request to upzone.**
132. **In respect to the scope of the Variation itself, I consider that this land was not included within the Variation, and as such, extensions to it, whether as a relevant residential zone, new residential zone, or an NPSUD Policy 3 area, are not within scope of the Variation. Variation 1 proposes no changes to the zoning or associated provisions for these properties.**
133. **As such as the submission is not "on" V1 in the scope of the notified variation.**
134. **Under the *Clearwater* and *Motor Machinist* tests. I consider that whilst there appear to be no insurmountable technical constraints to prevent V1 medium density residential land use on the site, I**

cannot be certain there are no real effects on affected parties that did not anticipate a full medium density residential land use at this location. These parties have had no opportunity to submit on the Variation in respect to this site being specifically included within it.

135. I do not consider there is scope to amend the boundaries of the 'relevant residential zones' within the Variation. As such I recommend that the submission of Ben Dormer be rejected.

5.4.4 Recommendations

136. That the following outcome for submissions occurs:

- Ben Dormer [V1 40.1, V1 40.3] is **rejected**
- Further submission Ben Dormer [FS V1 40.1] is **rejected**

5.4.5 Amendments

137. There are no amendments to Variation 1 arising from this submission.

6 North West Rangiora

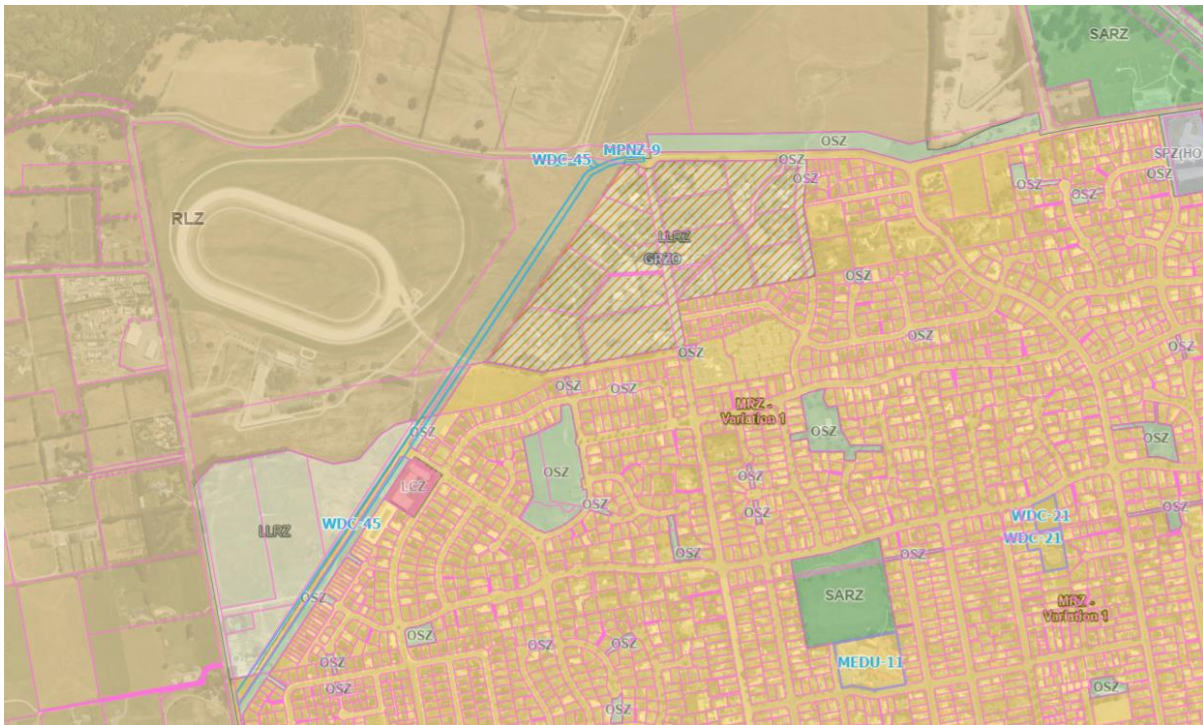


Figure 12 North West Rangiora (from proposed District Plan)

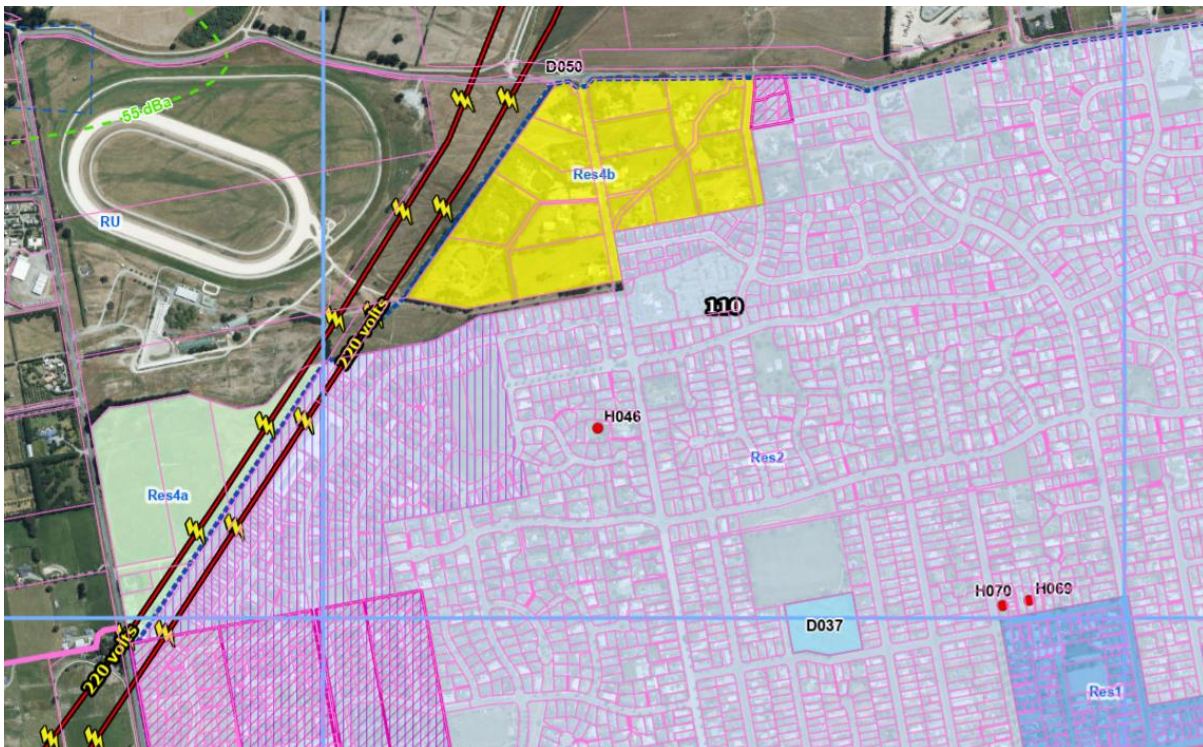
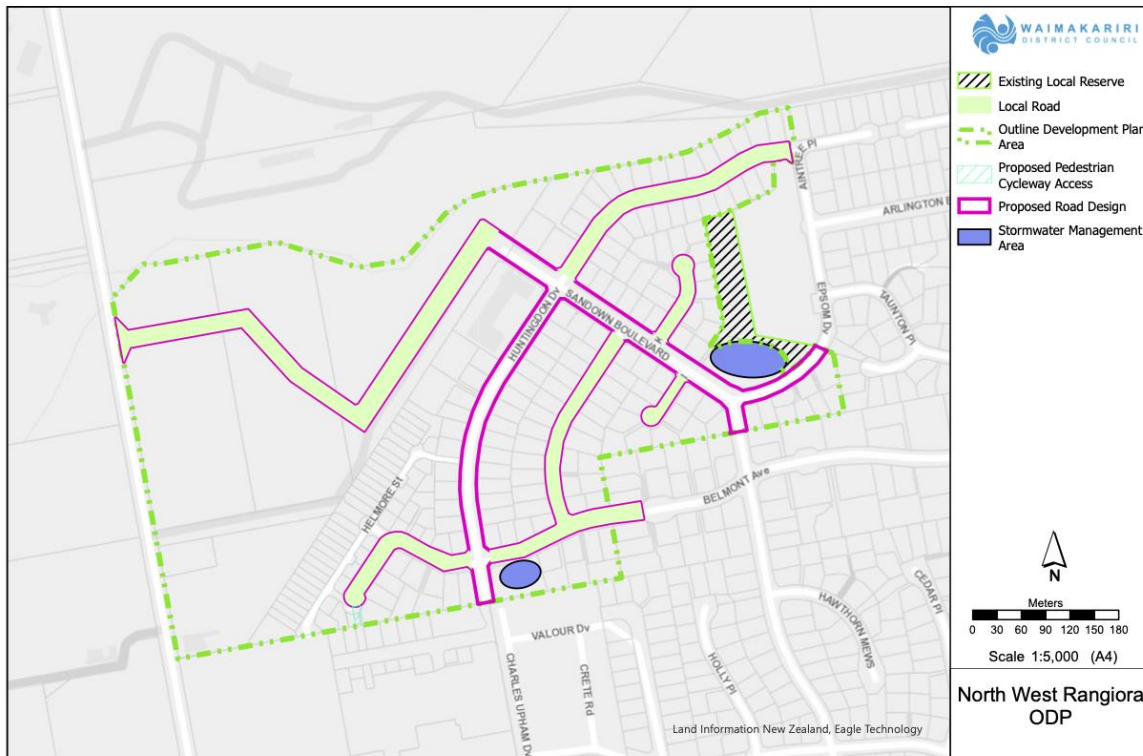


Figure 13 North West Rangiora - Operative District Plan



Cadastral Data from LINZs DCDB. Crown Copyright Reserved.

Figure 14 NWR Outline Development Plan (from operative and proposed District Plan)

6.1 North West Rangiora Development Area

6.1.1 Description, and Matters raised by submitters

138. The remainder of the existing North West Rangiora Development area consists of the Arlington and Farmlands Trust developments in the western part, which are now largely complete, and an area of rural residential land (residential 4a) to the west, separated by Transpower’s Islington-Kikiwa A and B 220kV transmission lines. The area west of the transmission lines is proposed as large lot residential in the PDP, as the continuation of the operative residential 4a zone. It is not a future development area in the context of Map A, CRPS, being outside of the projected infrastructure boundary.

139. The area is:

- Currently zoned as residential 4a (rural-residential) in the operative district plan;
- Proposed in the PDP as LLRZ;
- Outside of the projected infrastructure boundary, as set out in Map A of the CRPS.
- Is described as an existing development area in the operative plan and PDP, with proposed rules and other provisions.¹¹
- Contains an ODP in the operative plan and notified PDP¹²
- **Not proposed under Variation 1 as medium density residential**

¹¹ DEV-NWR-APP1

¹² <https://waimakariri.isoplan.co.nz/draft/rules/0/297/0/0/0/224>

140. Doncaster Developments [V1 26.2, V1 26.3] request a more appropriate provision for medium density housing that only applies to parts of Rangiora located within walking distance, or 800m, from the town centre, and the balance of residential areas, including 260-282 Lehmans Road, and 32 Parrott Road, Rangiora.
141. They request that Variation 1 identify parts of Rangiora that should remain as general residential zone as a qualifying matter as a blanket approach to medium density housing is unsuitable in Rangiora's generally low density suburban environment with high standards of residential amenity and urban design. However, if this is not possible, then it is requested that the site be considered within the scope of Variation as if it was already General Residential Zone, not Large Lot Residential Zone.
142. This is opposed in further submissions by FS Kainga Ora [V1 FS 23] and Transpower [V1 FS 2] are neutral.

6.1.2 Assessment

143. The area is known as the North West Rangiora development area, with the primary developer being Doncaster Developments Ltd. Ms Harte, for Doncaster, considers that an upzoning of the area from rural-residential/large-lot to medium density residential will create 110 allotments¹³.
144. I note differences in density amongst their experts. Development would have to achieve 15 households per ha unless constraints are identified, otherwise 12 households per ha, in order to achieve the required yields of SUB-S3.
145. **I note that this density may be too low in the context of a Variation 1 rezoning.**
146. I consider that this area is something of a zoning anomaly in the context of the district, as despite it being accessible to the rest of Rangiora, the regional planning framework has not enabled it to be fully upzoned, because it is not a greenfield priority area or future development area, and outside of the projected infrastructure boundary as defined in Map A. It is already a residential 4a zone in the operative district plan, and proposed to continue as a large lot residential zone. However, I note that under the CRPS, and National Planning Standards rural residential zones are not urban zones, and as such, this area would require rezoning.
147. It may have been that the 220kV transmission lines at the time formed a logical boundary on the urban limits of Rangiora, however, the town, and the requirement for additional capacity, has changed since then. Since the formulation of Map A and Chapter 6, there has been no available pathway under the CRPS for upzoning it, except in the context of a CRPS review under policy 6.3.11.
148. I understand that the relevant setbacks, buffers, and protections for the 220kV transmission lines have been agreed between the Council, developer, and Transpower, as part of earlier development proposals in the area.
149. Apart from transport, which I discuss below I note that there are no technical constraints to development on the site.

¹³ Para 31, Ms Patricia Harte expert planning evidence

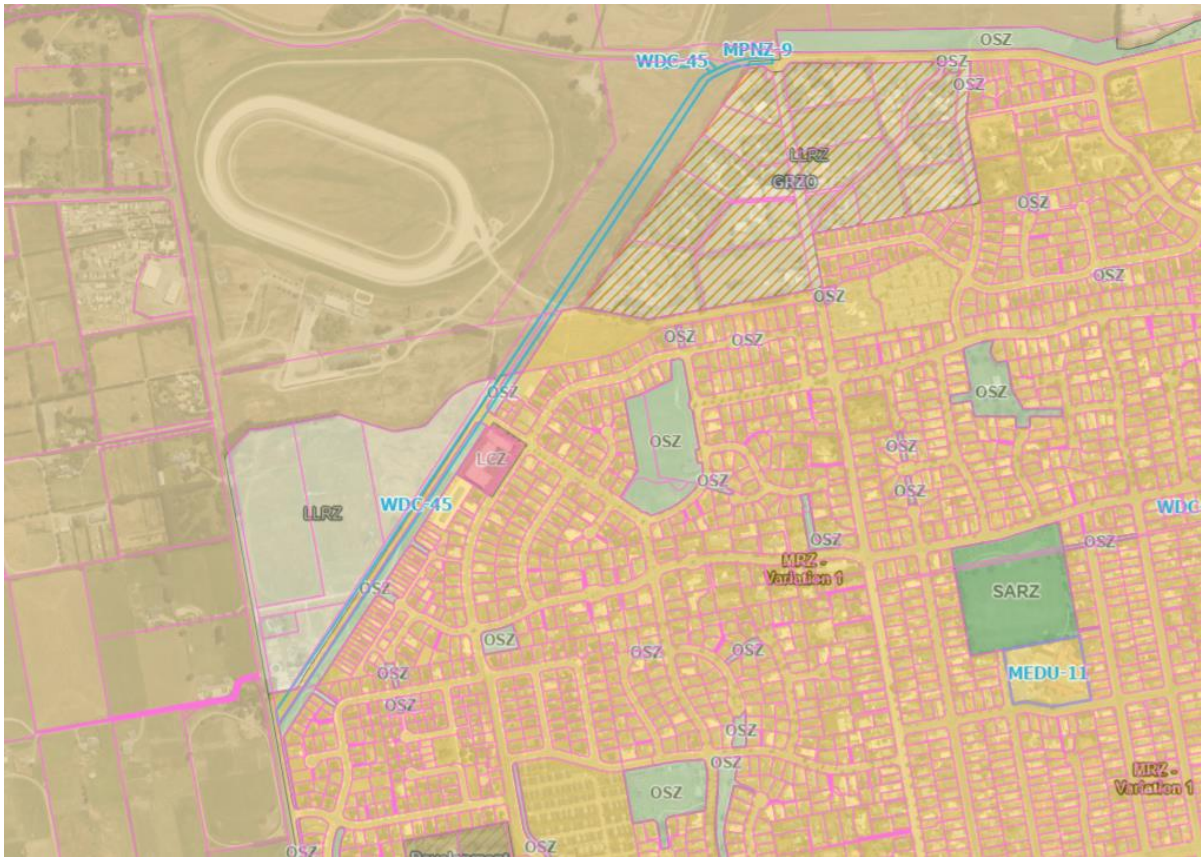


Figure 15 NWR transport (designation for proposed Parrott Road in blue)

150. Mr Edwards states that the 110 allotments are based on general residential density¹⁴, and the traffic generated from them is assessed accordingly. However, there is a slight difference between general residential, which has traditionally assumed one two storey dwelling per allotment, and PDP medium-density residential, which provides for a single dwelling of three stories. There are consenting pathways for greater density. Thus I consider that 110 lots modelled for transport purposes is likely on the low side..
151. Council has a long-standing proposal to construct and form Parrott Road, which runs parallel to the transmission lines. The designation sits over land parcels owned by WDC and a parcel of reserve vested in the Canterbury Regional Council¹⁵. This road is set out as a project in the WDC LTP.
152. Council's transport expert for this site, Mr Gregory, has raised concerns about the connectivity of the site to the rest of Rangiora from a transport perspective, and the potential to overload Belmont Avenue (a local road), which is the most direct route from the development to the Rangiora town centre¹⁶. Whilst he notes the proposed arterial route – Parrott Road - along the transmission line corridor, he still has concerns about connectivity, as Parrott Road exits onto roads that are still well removed from direct routes to the Rangiora town centre.
153. Mr Edwards, transport expert for the applicant, considers that the site is well-connected, considering a southern connection of Parrott Road but no northern connection.

¹⁴ Para 13, Mr Ray Edwards expert transport engineering evidence

¹⁵ I think under the Soil Conservation and Rivers Control Act 1941

154. In considering Mr Gregory's concerns, I note that if Parrott Road is constructed in full, I consider the proposed development will have the following connections:
- West to Lehmans Road (an arterial road).
 - The southern end of Parrott Road onto Lehmans Road.
 - East to Belmont Avenue (a local road).
 - East to Sanddown Boulevard (a local road).
 - The northern end of Parrott Road onto River Road (an arterial road).
 - The possibility exists of an addition sixth connection between Parrott Road and West Belt direct, along the existing back access to the Rangiora Racecourse.
 - Some of these will be suitable for cycling and/or have constructed cycle paths on them.
155. I note that in the context of other developments in the district, this is a relatively high number of connections for a relatively small number of lots.
156. I also note that trip destinations will be different, as those heading to and from Christchurch (or otherwise away from Rangiora) will take the arterial routes avoiding Rangiora (Lehmans Road, also potentially River Road), whilst trips into Rangiora are more likely to take a more direct route, either through the streets of Arlington (Sanddown Boulevard and Belmont Avenue), or on the Parrott Road to West Belt connection if it is constructed.
157. Mr Gregory has recommended access management to avoid direct connections onto the arterials, as well as to avoid overloading the Arlington streets. I agree with the need for this access management, and consider that an additional access direct between Parrott Road and West Belt would assist. This may also assist with other developments in the area, for instance, North Rangiora. A direct route off Parrott Road onto West Belt via the Rangiora racecourse back entrance and thus into Rangiora would assist with the direct connections. This route is currently privately owned by the racecourse.
158. Provided the proposed roads also contains space for a shared cycle and walking path, may address Waka Kotahi's concerns about the development being too reliant on private motor vehicles.
159. I have asked Mr Jolly to address these features in his ODP changes, in Figure 22 below.
160. I also recommend that the need for access management will be required during consenting, which will require an area specific rule and/or a matter of discretion. Such a provision should be provided by the submitter
161. If rezoning were to occur Mr Jolly has suggested changes to the DEV-NWR ODP as follows:

Outline Development Plan

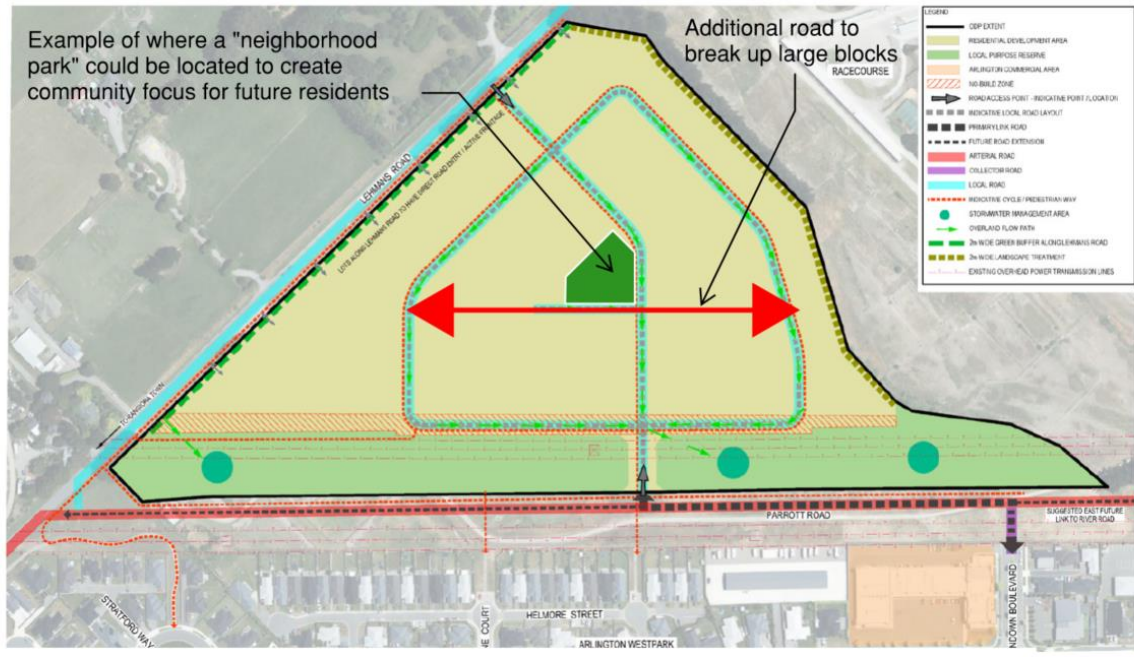


Figure 16 Central park within the rezoning area (avoiding the transmission lines)



Figure 17 Changes to NWR ODP (2) showing movement network

Overall recommendations

162. I assess the scope for rezoning from the submissions below:

Submitter	Number	Land Included in submission	Zoning sought
Doncaster Developments Ltd	V1 26.2, V1 26.3	Rezone this western rural-residential/large-lot area of 11.6ha at the north east end of Lehmans Road, Rangiora from LLRZ to GRZ	General residential [in the context of Variation 1]

163. In respect to the scope of the Variation itself, I consider that this land was not included within the Variation, and as such, extensions to it, whether as a relevant residential zone, new residential zone, or an NPSUD Policy 3 area, are not within scope of the Variation. Variation 1 proposes no changes to the zoning or associated provisions for these properties.

164. I do not consider there is scope to rezone these properties as the request is not “on” V1 under the *Clearwater* and *Motor Machinist* tests, as follows:

- It is not a minor incidental or consequential adjustment of a boundary, it is a substantial new area of land that was not outlined in the Variation.
- There may be persons adversely affected in a real way, as they did not anticipate the development.
- I note that the densities proposed in the development may be too low to be considered as medium density residential to the MDRS standards.

165. I do not consider there is any scope to amend the boundaries of the ‘relevant residential zones’. As such I recommend that the submissions are rejected.

6.1.3 Recommendations

166. That the following outcome for submissions occurs:

- Doncaster Developments Ltd [V1 26.2, V1 26.3] are **rejected**
- Further submissions FS Kainga Ora [V1 FS 23], Transpower [V1 FS 2] are **accepted**.

6.1.4 Amendments

167. There are no amendments arising from these recommendations

7 North East Rangiora

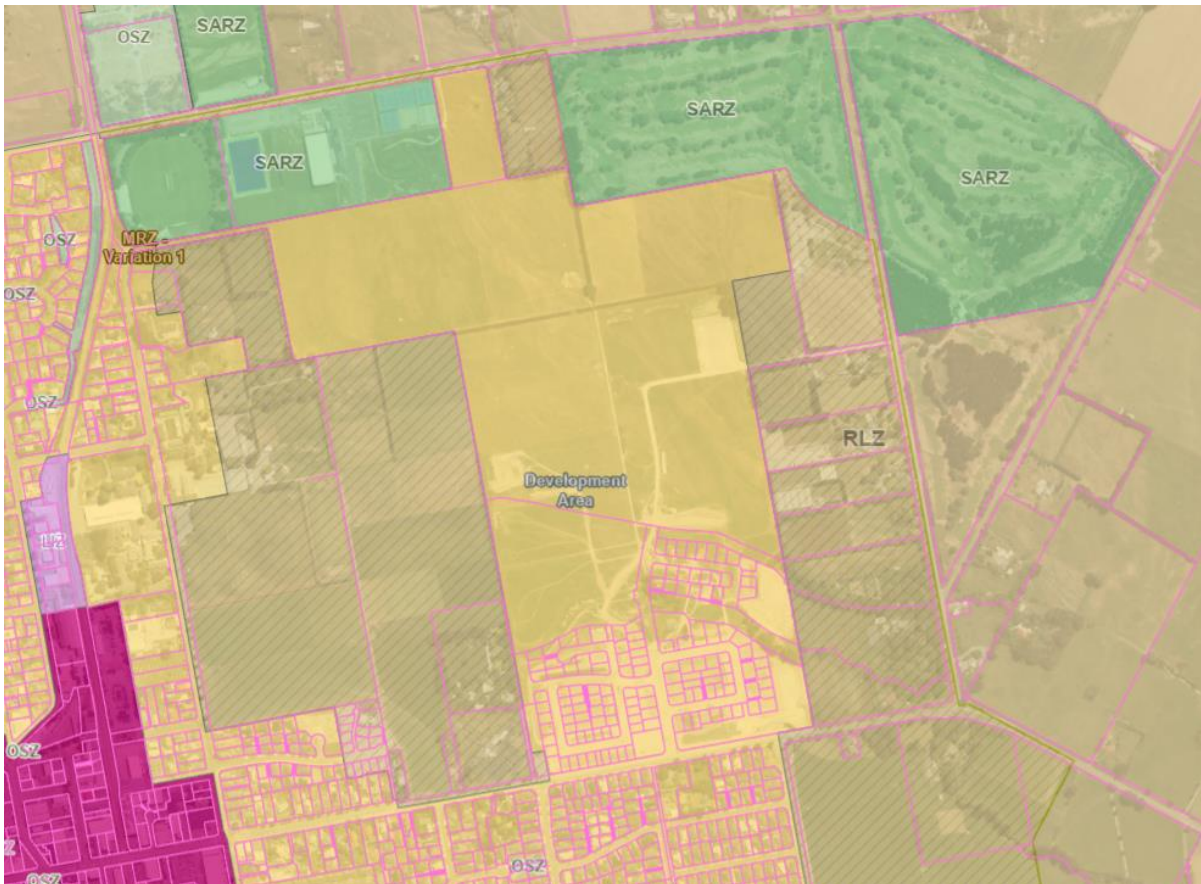


Figure 18 North East Rangiora Development Area

7.1.1 Description and Matters raised by submitters (overall)

168. The North East of Rangiora is shown on the map above. It is primarily made up of the North East Rangiora development area, but there are other submissions seeking rezoning outside of this development area.
169. The North East Rangiora Development Area is 128 hectares of land in the north eastern part of Rangiora. It is currently zoned as rural, and proposed to be rezoned as rural lifestyle under the PDP. Part of the development area, corresponding mostly to the Bellgrove North development, is proposed to be rezoned as medium density residential under Variation 1. A portion of this area, which can be seen on Figure 12 below.
170. The primary area, coloured yellow above, is the Bellgrove North development.
171. This area is:
- Currently zoned as rural in the operative district plan;
 - Proposed in the PDP as RLZ;
 - **Bellgrove North is proposed in Variation 1 as V1 medium density residential. The other areas are not included within the proposed rezoning in the Variation;**
 - Within the projected infrastructure boundary, as set out in Map A of the CRPS;

- Within the North East Rangiora new development area in the PDP, and the North East Rangiora FDA as set out in Map A, CRPS; and,
- Stage 1 of the Bellgrove North development received land use and subdivision consents under the Covid 19 fast track legislation. Stages 2-6 are in pre-application discussions with Council at present.

7.2 Bellgrove proposal

7.2.1 Matters raised by submitters

172. Bellgrove Rangiora Limited [V1 79.10] request updates and changes to the NER development area. These changes are as requested in their evidence in hearing stream 10A¹⁷, and include the addition of an additional area of Bellgrove Rangiora Ltd owned land that was left out of the Variation 1 maps.

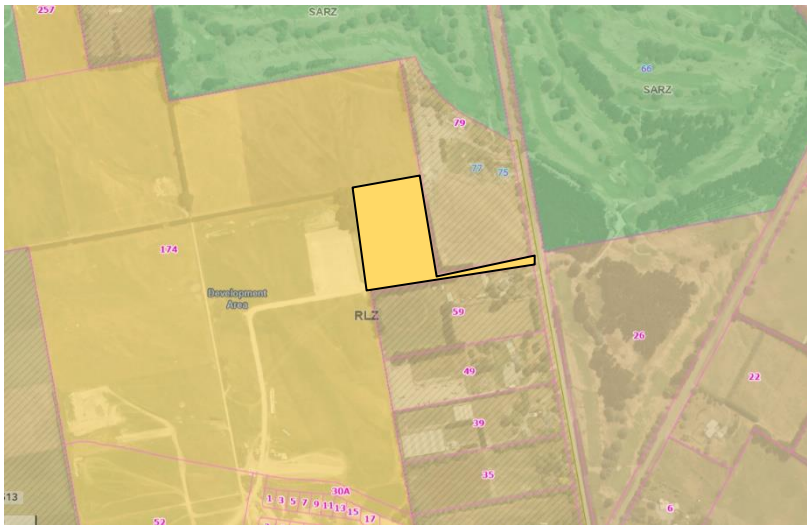


Figure 19 Additional Bellgrove land ('error parcel')

7.2.2 Description

173. The Bellgrove North land is currently zoned as rural, and within the north east Rangiora development area. It is proposed to be rezoned to medium density residential under Variation 1.
174. Part of the land, known as Bellgrove North Stage 1 is currently being developed. Overall, the developer states that Bellgrove North will achieve about 800 dwellings overall, about 200 of which have already been consented (on the first 14.8ha of land).
175. The remaining stages of Bellgrove North are on land owned by Bellgrove North, along with a parcel of land to the west owned by Waimakariri District Council and intended for a park associated with Bellgrove North.
176. There was a parcel of land in the development area that was inadvertently left out of the Variation 1 maps, as outlined above.

7.2.3 Assessment

Natural hazards, geotechnical, three waters

177. Council engineering advice on these¹⁸ is as follows:

¹⁷ Ms Ruske-Anderson, EIC for Stream 10A, paras 25-31

¹⁸ Mr Aramowicz, EIC, para 100-114

- *Based on existing flood hazard modelling, with careful engineering, the effect of any additional stormwater runoff from a future subdivision to the downstream catchment area can be largely mitigated using onsite and/or offsite attenuation. The ODP should allow flexibility for sizing of stormwater management areas to be confirmed through detailed design at subdivision stage.*
- *There is provision in the WDC 50yr growth strategy for extension of wastewater services to the application site. In summary, there are no known significant wastewater constraints that would prevent the proposed land use.*
- *There is provision in the WDC 50yr growth strategy for extension of water services to the application site. In summary, there are no known significant water supply constraints that would prevent the proposed land use.*

Transport

178. Council's transport engineering advice, from Mr Binder¹⁹, is as follows:

- *I strongly encourage a secondary road network that maximises number of sections with direct road frontage and minimises long driveways and ROW-based development.*
- *I strongly encourage that placement of higher-density MRZ take into consideration the need and benefit of close proximity to public transport and regional cycling links. In this instance, Kippenberger Ave will likely have the only PT service and Grade 1 (highest level) cycleway in the ODP area. Higher density development in close proximity to PT and cycle facilities both increases the number of households that can realistically take advantage of these modes as well as creating higher demand for them.*
- *The ODP needs to include cycle facilities along both Northbrook Rd & Kippenberger Ave frontages to give effect to the Walking & Cycling Network Plan.*

Greenspace and urban design

179. No advice was provided on Bellgrove North as I understand experts considered that the ODP matters for the site have been largely resolved, or are being resolved through consent decision-making in reference to the notified ODP.

Discussion

180. **I consider that there are no specific engineering or technical constraints that preclude V1 medium density residential rezoning in the NER development area, noting that development is already underway with stage 1 of Bellgrove²⁰, and that the Bellgrove North land is already plan-enabled and infrastructure-ready.**
181. **There are detailed engineering assessments in the s32 for Variation 1, and I consider that the additional expert advice sought in response to of Bellgrove's submissions on V1 is in broad agreement with the original advice in the s32.**
182. **As well as the scope from the notified Variation itself, I consider that there is also scope from the Bellgrove submission to consider upzoning of the area of land associated with Bellgrove North. Under the Variation, medium density residential zoning is the only available option to consider in the context of an upzoning.**

¹⁹ Mr Binder, EiC, pg 2

²⁰ Under a covid-19 fast-track consent.

7.2.4 Recommendations

188. That the following outcomes for submissions occur:

- Bellgrove [V1 79.10] is **accepted**

7.2.5 Amendments

189. That the additional Bellgrove land is included in the zoning maps as V1 medium density residential.

7.2.6 S32AA Evaluation

190. I consider this addresses a minor error, and does not make a material change to the Variation and/or the Proposed District Plan

South East Rangiora rezonings

7.3 Sparks Block A proposal

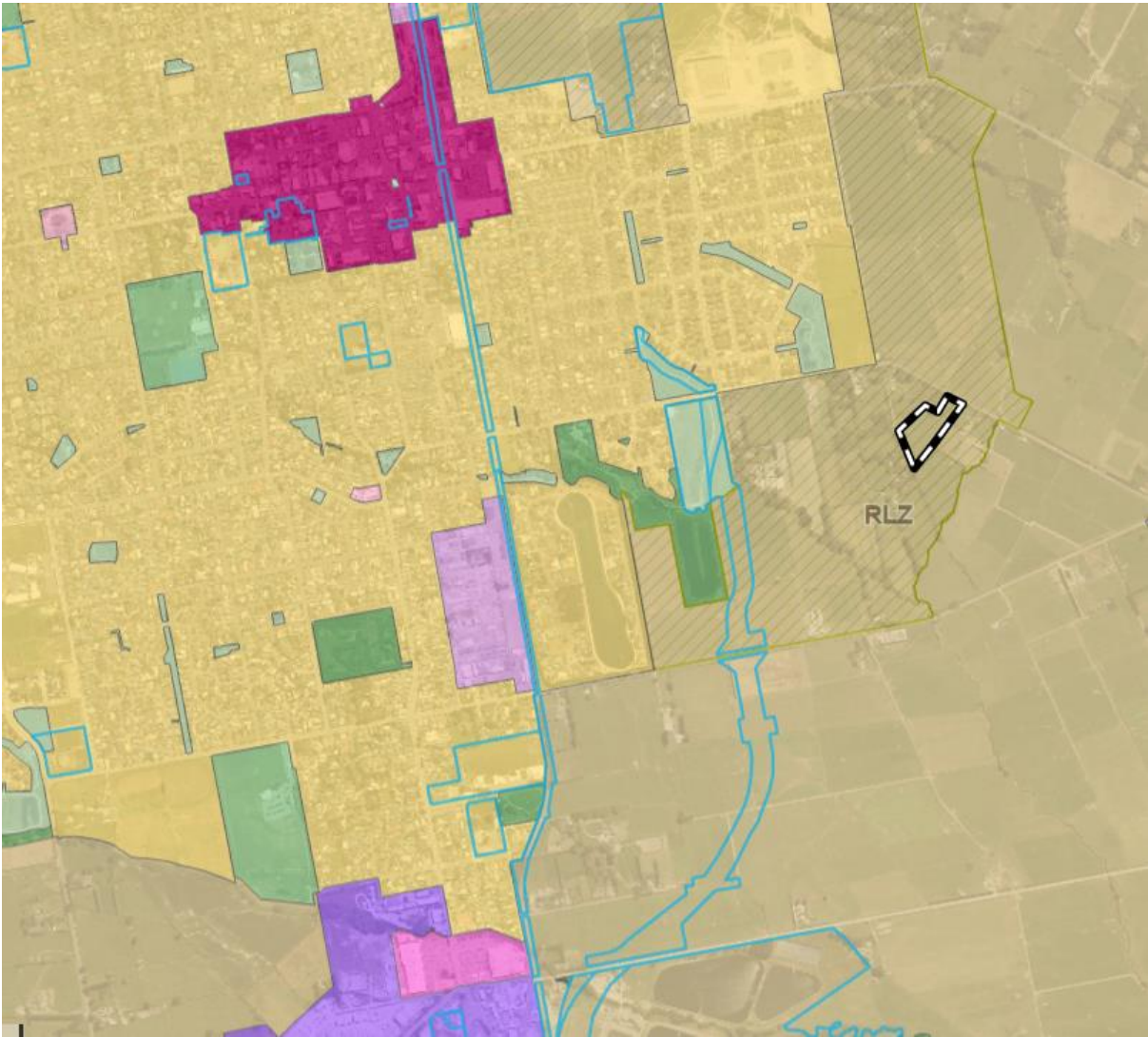


Figure 20 South East Rangiora development area

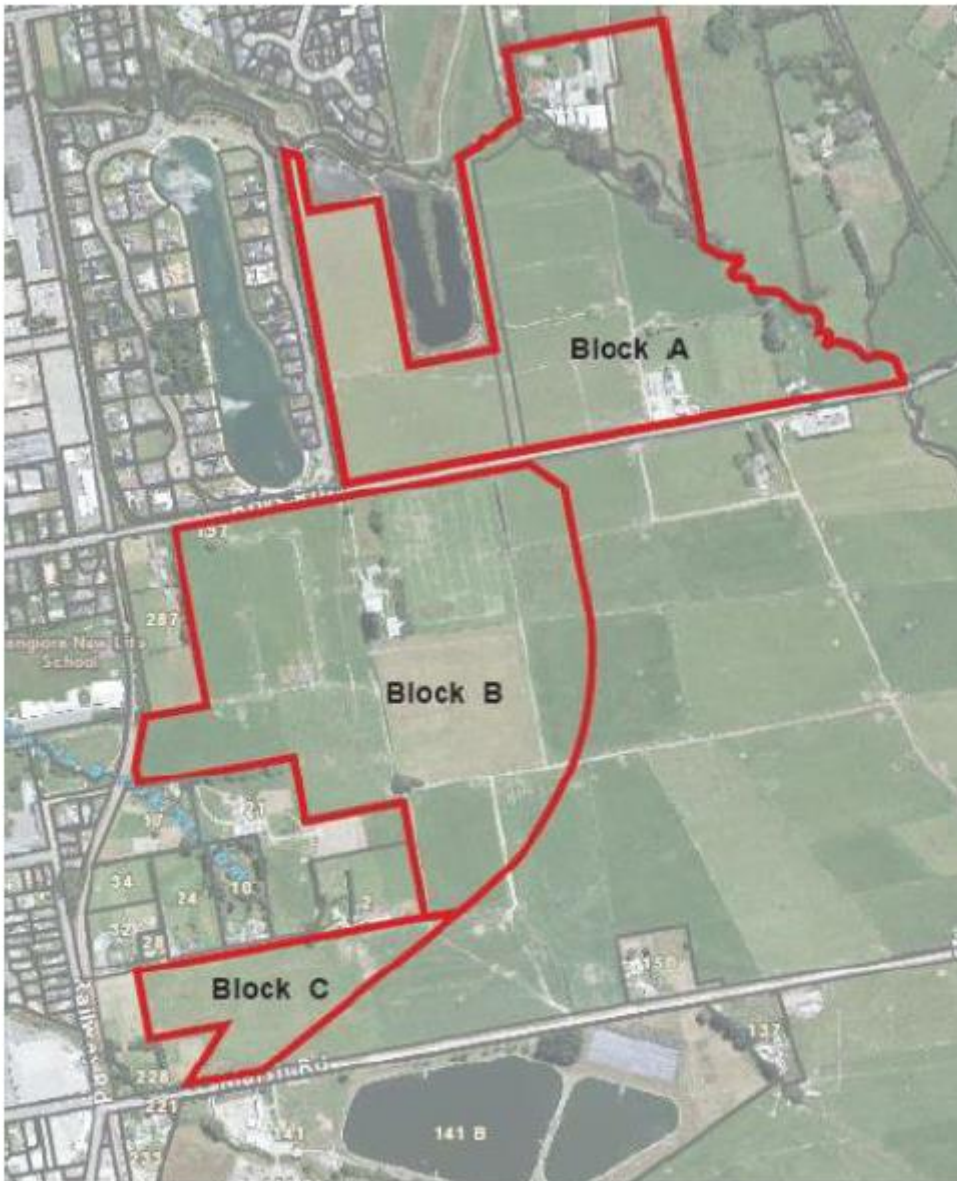


Figure 1: Location of Blocks A – C, Submission #183 (evidence of Ms Lisa Williams, Figure 1, reprinted).

Figure 21 All Spark proposal blocks

7.3.1 Matters raised by submitters

191. Richard and Geoff Spark [V1 61.1] seek the rezoning of about 56ha of land north and south of Boys Road to provide approximately 836 lots (check with planning evidence).

7.3.2 Assessment

Natural hazards, geotechnical

192. The Sparks Block A area is:

- Currently zoned as rural in the operative district plan;

- Proposed in the PDP as RLZ;
- Inside of the projected infrastructure boundary, as set out in Map A of the CRPS;
- Inside the south-east Rangiora new development area, which is an FDA as set out within Map A of the CRPS; and,
- Has an ODP for the site within the operative or Proposed Plan.

193. Richard and Geoff Spark [183.16] seek to rezone all land (approximately 30ha) in the vicinity of Boys Road and Marshes Road, in south eastern Rangiora, west of the proposed eastern link to general residential and medium density residential. This is opposed in a further submission by Bellgrove Rangiora Ltd [FS 85], and supported by Kiwirail [FS 99].

7.3.3 Assessment

Natural hazards, geotechnical

194. Mr Aramowicz's summary advice is:

- *Current flood hazard mapping on WDC's GIS for a 0.5% AEP event (i.e. 200 yr ARI) and for the Ashley River breakout scenario indicates two large overland flow paths will occur across the site, each with a low-medium flood hazard. These are associated with North Brook at the north part of the site, and Middle Brook which is close to Gefkins Rd.*
- *In summary, the site contains soft ground and peat. Subdivision design and construction will need to be undertaken in a way that minimises the risk of subsidence to future roads, underground services and building foundations.*

3 waters

195. Mr Aramowicz's summary advice is:

- *Based on existing flood hazard modelling, I expect that with careful engineering, the effect of any additional stormwater runoff from a future subdivision to the Silverstream/Kaiapoi area can be largely mitigated using onsite and/or offsite attenuation. The FT report did not investigate this.*
- *Site [is] within RGA32 & 43 growth areas, and there are existing services at the boundary. Note, however, WDC ultimately proposes a pumped sewer to provide capacity to Bellgrove, which would also service this site. Trim 23120619569 WDC Water and Wastewater 50yr scheme upgrade report identifies need for WDC to provide East Rangiora Stage 2 and Stage 3 in due course to service eastern Rangiora developments.*
- *WDC 50yr water & wastewater scheme upgrade report, trim 231206196569, identifies the future need for the Marsh Rd Supply main and Boys Rd Booster Main to service the area. In summary, there are no water supply constraints that would prevent the proposed land use.*

Transport

196. Mr Gregory's summary advice is:

- *Supportive of the Block A rezoning overall, including the updates to the ODP, and the realignment of the REL (Rangiora Eastern Link bypass road).*
- *Notes that the commercial node may result in activities that are more transport intensive than a café, and that this is more likely to be an issue if this area has direct access to the REL road. The transport*

evidence of Ms Williams of 33 trips for a café at this location may be too low, with the trip count likely being higher, at between 53-80 trips.

- Opposes the site having direct access to the new arterial REL road, with local road access being provided by collector roads.
- Ensuring the ultimate location of the local centre zone being walkable from across the development, preferring a location closer to the centre of Block A and Block B, if Block B is approved.
- Based upon previous planning work which I have undertaken for the REL Road, the proposed trip generation potential is the equivalent of approximately 13% of the Rangiora East growth area.
- Boys Road requires upgrading to support Block A. The requirement must also meet the needs of Block B, and be developer-led and funded. Block B would also require inclusion within the REL Road Development Contribution area.
- On Block C, I do not consider there is enough information in order to support future rezoning at this stage. The trip generation assumed in the evidence of Ms Williams is very low, and in my opinion further assessment is required based on higher figures.
- Although detailed traffic assessment would be 'required at a later date'²², an estimate of 100 – 200 vehicles per hour is suggested, based on a range of 0.5 – 1 trips²³ per 100 m². In my own assessment, referring to an alternative source widely used in the industry²⁴, there are a range of three activities which could feasibly establish in the proposed site, generating between 1 and 6.2 vehicle movements per 100 m². The potential difference of 1,000 vehicles per hour could result in effects of a more than minor degree of severity.

Greenspace

197. Mr Read makes the following comments²⁵:

- "RE the Sparks Land, we originally had 3 parks...with the primary community destination park being adjacent to – and integrated with – the Northbrook Stream 20m esplanade reserve requirement. The 3rd and smallest park (0.3ha) was supposed to be assimilated into one or both of the others to increase their overall size, but this increase is not discernible on the plans. Assuming it's warranted by the total lots and associated resident population within the Sparks land, then I agree that one or both of the parks north of Boys Rd should be increased in size.
- Note also that any significant residential development approved on Sparks land to the South of Boys Rd will also require a small neighbourhood park. This could potentially be flat/dry land connected to the significant SMA (Stormwater Management Area) provision likely to be required. The Boys Road corridor is a significant barrier to safe community access to the parks north of Boys Rd...so an additional park space is needed"

Urban design

198. Mr Jolly makes the following comments²⁶:

²² Evidence of Ms Williams, paragraph 24

²³ RTA Guide to Traffic Generating Developments

²⁴ NZTA Research Report 453 (2011): Trips and Parking related to land use

²⁵ Email of Monday 1 July in response to Peter Wilson questions on original evidence.

²⁶ Email of 10 May 2024 to Peter Wilson

- *The curving of the roads is indicative and shows that there is need to avoid these being direct routes between Boys Road and the REL, this is because we don't want people short cutting through the local residential streets. I.e., we want to avoid creating a rat-run through residential roads over the collector / arterial roads. There are other ways this can be reinforced through design but the ODP is indicative and this is a good way to show that intent. There is also some co-ordination of roads with flood management and other servicing requirements that needs to be taken into account.*
- *The very clear direction from Councils transport team was to avoid the secondary roads being cross-roads intersections over Boys Road. To maintain connectivity as best we could the design provided staggered T intersections to separate vehicular traffic but allowed for direct pedestrian and cycle connections via alignment of the green link south of Boys Road to be located near the secondary road for more direct active transport connections.*
- *There is also specific discussion of the various options for access to the Industrial area in the ITA.*

Applicant evidence

199. Applicant expert evidence

<u>Person/Organisation</u>	<u>Evidence type</u>
Mr Alastair McNabb	Infrastructure and Servicing
Mr Mason Reed	Geotechnical
Mr Sean Finnigan	Soil Contamination
Mr Ivan Thomson	Planning
Mr Matt Lester	Landscape
Mr Amir Montakhab	Flooding
Ms Lisa Williams	Transport
Mr Stuart Ford	Productivity and NPSHPL
Mr Fraser Colegrave	Economics
Ms Cathy Niewenhuijsen	Odour
Ms Nicole Lauenstein	Urban Design
Mr Mark Taylor	Ecology

Overall consideration

200. I assess the scope for rezoning from the submissions below:

Submitter	Number	Land Included in submission	Zoning sought
Richard and Geoff Spark	V1 61.1	All land (approximately 56ha ha) in the vicinity of Boys Road and Marshes Road, in south eastern Rangiora, west of the proposed eastern link	General residential and medium density residential.

201. **I consider that there is scope from the submission to consider a rezoning under Variation 1.**

202. In respect to the scope of the Variation itself, I consider that this land was not included within the Variation, and as such, extensions to it, whether as a relevant residential zone, new residential zone, or an NPSUD Policy 3 area, are not within scope of the Variation. Variation 1 proposes no changes to the zoning or associated provisions for these properties.
203. I do not consider there is scope to rezone these properties as the request is not “on” V1 under the *Clearwater* and *Motor Machinist* tests. It is a large area of new land – not incidental and consequential - and was not notified for public submission, and as such I consider there may be affected persons who have not had an opportunity to submit on it.
204. As such I do not consider there is any scope to amend the boundaries of the ‘relevant residential zones’. As such I recommend that the submission is rejected.

7.3.4 Recommendations

205. That the following outcome for submissions occurs:
- Richard and Geoff Spark [V1 61.1] is **rejected**.

7.3.5 Amendments

206. No amendments arising from these recommendations.

8 Rezoning requests in and around Woodend

8.1 Woodwater proposal

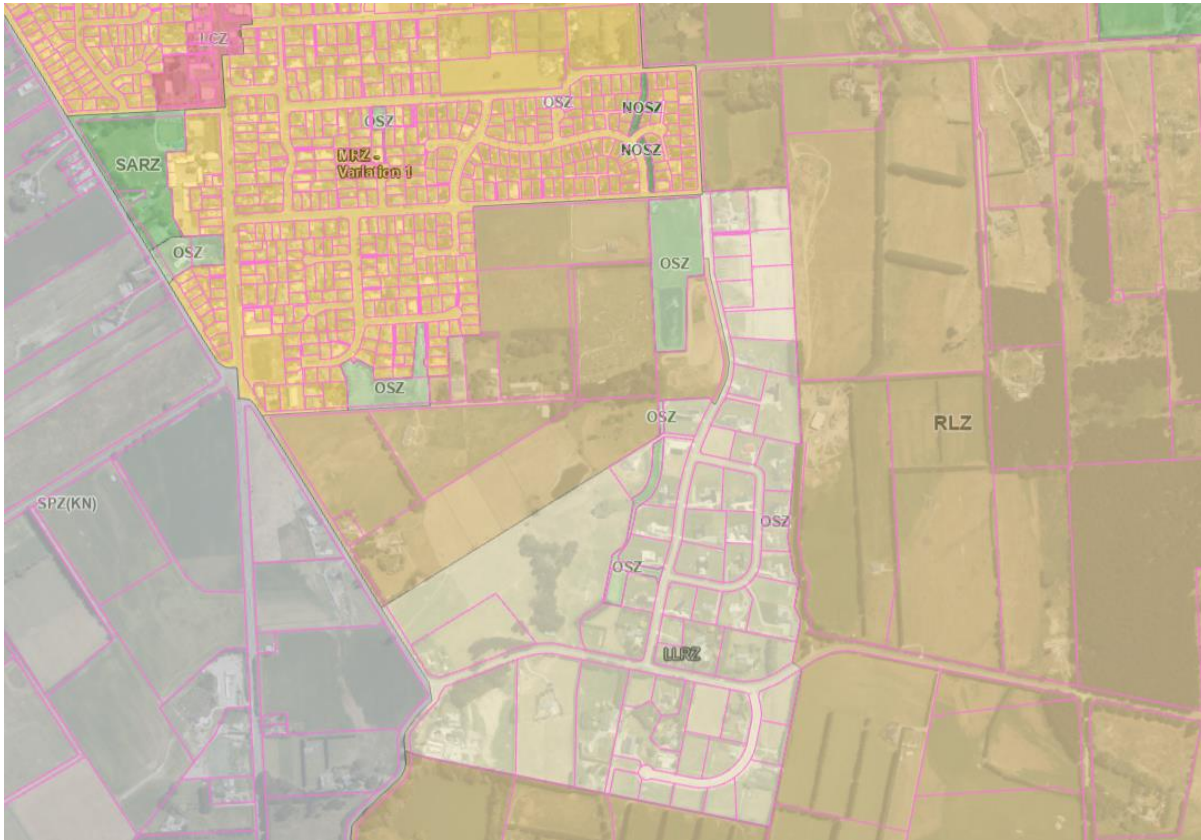


Figure 22 Woodwater area

207. Woodwater Limited [V1 48.1, V1 48.2] propose to rezone the following land as medium density residential zone:

- 21 Judsons Road, Woodend, Waimakariri District (Lot 2 Deposited Plan 2567 and Part Rural Section 689)
- 320 Woodend Beach Road, Woodend, Waimakariri District (Lot 2 Deposited Plan 75359)
- 1 Judsons Road, Woodend, Waimakariri District (Part Lot 1 Deposited Plan 2567)
- 328 Woodend Beach Road, Woodend, Waimakariri District (Part Lot 1 Deposited Plan 2567)
- 36 Judsons Road, Woodend, Waimakariri District (Part Rural Land 689 and Part Rural Land 689)
- 40 Judsons Road, Woodend, Waimakariri District (Part Rural Section 689)
- 46 Judsons Road, Woodend, Waimakariri District (Part Rural Section 689)
- 50 Judsons Road, Woodend, Waimakariri District (Part Rural Section 689)
- 52 Judsons Road, Woodend, Waimakariri District (Part Rural Section 689, Part Rural Section 689, Part Rural Section 367A and Part Rural Section 689)
- 60 Judsons Road, Woodend, Waimakariri District (Parcel ID: 3401266)
- 62 Judsons Road, Woodend, Waimakariri District (Part Rural Section 689)

- Copper Beech Road, Woodend, Waimakariri District (Lot 1, 101 Deposited Plan 503969)
- 43 Petries Road, Woodend, Waimakariri District (Part Rural Section 367A and Part Rural Section 689)

208. These sites are:

- Currently zoned as rural in the operative district plan;
- Proposed in the PDP as RLZ
- Inside the projected infrastructure boundary, as set out in Map A of the CRPS.
- The land is not designated as either a greenfields priority area or future development area in Map A, CRPS
- Does not have an ODP in the operative or Proposed Plan
- **Are not proposed for rezoning under Variation 1**

8.1.1 Assessment

Geotechnical, Natural hazards, 3 waters

209. Mr Aramowicz comments:

- *There are areas of low-med flood hazard predominantly along eastern and south eastern boundaries of the application area.*
- *The ENGEO(consultant) report indicates there is a moderate risk of liquefaction ie TC2.*
- *The report briefly indicates there could be peat present, but provides no further comment on this potential hazard. I was unable to find the appendices of the geotechnical report in TRIM.*
- *From my experience, I am not aware of peat being prevalent in the south part of Woodend. Given that ENGEO have not commented further on peat, it is assumed that their site investigations did not encounter any extensive or thick deposits that could make it impossible for the proposed GRZ landuse.*
- *In summary, there are no known significant natural hazard or geotechnical matters that would prevent the proposed land use.*
- *Upgrades to network will be needed to achieve adequate supply to the site. The provisions of the LTP may need to be brought forward to allow for early development of this site.*
- *In summary, there are no known significant water supply constraints that would prevent the proposed land use.*

Transport:

210. Mr Binder comments:

- *I consider this area to be appropriate for GRZ given the potential for connections to the existing transport connections. I am not sure that it would be sufficiently well connected for MDRZ intensification based on the following constraints (unless they are remedied)-*
- *Judsons Rd, the only existing road servicing the bulk of the site, has a legal width far below District Plan requirements (10m) and is not sufficiently wide to provide appropriate access for substantial development.*

- *Judsons Rd also accesses only to Woodend Beach Rd, which has capacity constraints at the existing intersection with Main North Rd*
- *There are very limited non-motorised connections (none on Judsons Rd and only far side footpath on Petries Rd) with the broader network (and existing PT stops and cycle facilities)*
- *If further development is to be allowed in this area, I strongly recommend creation of an ODP including further connections from Judsons Rd to Petries Rd and Copper Beech Rd as well as consideration of widening of the Judsons Rd legal road width.*

Greenspace:

211. Mr Read comments:

- *The provision of one or two neighbourhood park spaces will be required if this large area is rezoned and developed for General Residential living; with a portion potentially being rezoned as Large Lot Residential land. The number and location of these parks will need to meet required park levels of service standards. i.e. most residents to be within 500m, or a 10-minute walk, of a neighbourhood park; and 1.0ha of neighbourhood park space to be provided per 1,000 residents. In addition, the minimum size for a neighbourhood park is 0.3ha. Depending on the intensity of development and associated population, meeting this provision could require either one centrally located large park, or two smaller parks distributed for easy community access across the development. The priority location for parks is within medium density and general residential areas, with any large lot residential living being closer to the margins of accessibility if necessary.*
- *The nearby Council owned Panckhurst Reserve caters for existing residents in the area north of Judsons Road. It has no capacity to absorb new residential development.*
- *A green linkage network is required to provide adequate off-road connectivity within the proposed rezoning areas. Restoration of the McIntosh Stream corridor is a key element. It will help facilitate community development, recreational opportunities and environmental enhancement. The denuded wetland sites should be retained in the interim until further ecological assessments are made regarding their values.*

Urban design:

212. Mr Jolly comments:

- *One of the key features that runs through the site is a water course / McIntosh Stream and associated wetlands which requires restoration. From the proposed ODP drawings and aerial photography it is difficult to ascertain the exact location of the wetlands. The ODP proposes residential zoning in this area. It is recommended that this water course is enhanced and reinforced with further stormwater management area. See diagram below (figure 2) on how land can be attributed to enhancement of Stormwater and the stream environment such that the stream environment both ecologically and for recreation purposes can be enhanced within this ODP site. Stream margins will require protective setbacks as well.*
- *The proposals provide very little in the way of public open space reserve. Medium density residential development will require higher demand on public open space and reserves therefore it is recommended to provide a centrally located large reserve with the site which will become a community focus and opportunity for passive recreation and play within the new neighbourhood. The alternative layout (figure 2) identifies a potential location for the reserve that will service new residential development within the ODP site. Its central location and size (approximately 1.5ha) allows it to provide access for the whole ODP site as it is within a 500m / 10minute walking distance from*

the majority of future homes. An alternative would be two smaller 0.75ha reserves, one located centrally in the northern area and one in the southern.

- The proposed ODP identifies ‘primary roads’ however in reality these should be secondary roads with Woodend Beach Road and Petries Road being the two primary roads in the area. The ODP identifies minimal secondary and local road connectivity within the ODP. It is recommended that further roads and means of connectivity are established. The diagram opposite (figure 2) provides a solution for road layout and connectivity within the site and connectivity back to the primary network. Consideration should also be given to how land is accessed and connectivity established into the site directly south of the ODP and north of Woodend Beach Road in the future.

Applicants

Person/Organisation	Evidence type
Davie Lovell Smith	Infrastructure and Servicing
ENGEO	Geotechnical and preliminary site investigation
Abley	South East Woodend Rezoning Integrated Transport Assessment
Insight Economics	Economics
DCM Urban Design Limited	Urban Design
Aquatic Ecology	Ecology

Overall consideration

213. I assess scope for the rezoning below:

Submitter	Number	Land Included in submission	Zoning sought
Woodwater Limited	V1 48.1, V1 48.2	Rezone land on Judsons Road, Woodend Beach Road, Copper Beech Road and Petries Road, Woodend (refer to full V1 submission for list of properties).	To residential uses

214. I consider that there is scope from the submission to consider a rezoning under Variation 1.

215. In respect to the scope of the Variation itself, I consider that this land was not included within the Variation, and as such, extensions to it, whether as a relevant residential zone, new residential zone, or an NPSUD Policy 3 area, are not within scope of the Variation. Variation 1 proposes no changes to the zoning or associated provisions for these properties.

216. I do not consider there is scope to rezone these properties as the request is not “on” V1 under the *Clearwater* and *Motor Machinist* tests. It is a large area of new land – not incidental and consequential - and was not notified for public submission, and as such I consider there may be affected persons who have not had an opportunity to submit on it.

217. As such I do not consider there is any scope to amend the boundaries of the ‘relevant residential zones’. As such I recommend that the submission is rejected.

8.1.2 Recommendations

218. That the following outcome for submissions occurs:

- That Woodwater [V1 48.1, V1 48.2] are **rejected**

8.1.3 Amendments

219. There are no amendments arising from this submission.

9 Rezoning requests in and around Ravenswood

9.1 Stokes

9.1.1 Matters raised by submitters

220. B and A Stokes [V1 29.1, V1 29.2, V1 29.3] requests a more appropriate provision for medium density housing for Woodend/Ravenswood/Waikuku that only applies to parts of these areas located within walking distance, or 800m, from the town centre, and the balance of residential areas, including the approximately 144ha area of Gressons Road, Waikuku, being rezoned to general residential. However, if this is not possible the submitters requests that the site be considered within the scope of Variation 1 as if it was already a general residential zone.

221. This site (144 ha) is:

- Currently zoned in the operative district plan as rural;
- Proposed in the PDP as rural lifestyle
- Outside the projected infrastructure boundary, as set out in Map A of the CRPS.
- Outside the shaded areas within Map A, CRPS.
- Does not have an ODP in the operative or Proposed Plan.
- **Is not proposed for rezoning under Variation 1.**

222. This is supported in a further submission by Ravenswood Developments Ltd [V1 FS 1], and opposed in a further submission by Waka Kotahi NZ Transport Agency [V1 FS 3].

9.1.2 Assessment

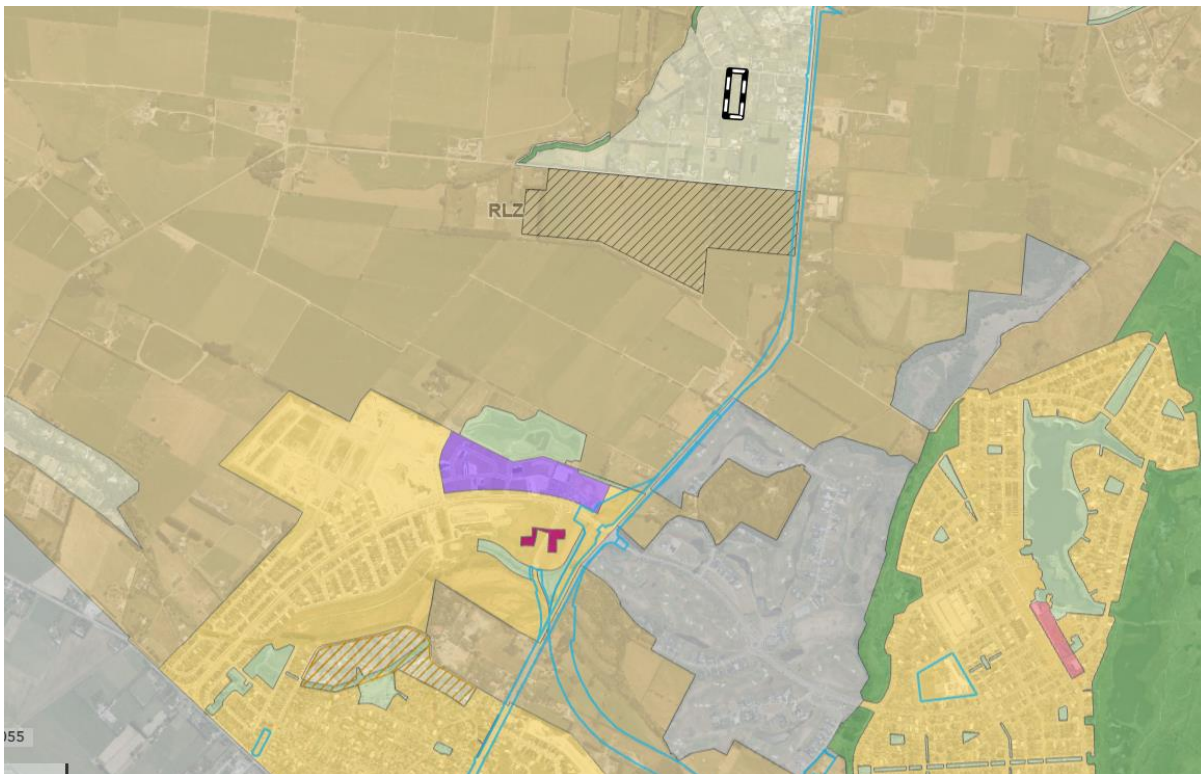


Figure 23 Stokes proposal (between North Woodend/Ravenswood and Waikuku)

Natural hazards

223. Mr Aramowicz comments:

- *There are large areas of low-medium flood hazard that flow from west to east across the mid-part of the application site.*
- *The proposed development intends to build over large parts of the existing overland flow path.*
- *DLS propose to construct a series of stormwater channels that will drain from W-E across the site to convey the flood flows through the site, as well as earthworks to create adequate surface drainage systems and allow floor levels to be established at an appropriate level.*
- *I note the area much further downstream of the site that stormwater will flow into already has a high flood hazard, and appears to be influenced by the effects of coastal inundation.*

Geotechnical

224. Mr Aramowicz comments:

- *Engeo identify various parts of the site have a moderate to high risk of liquefaction i.e. TC2 and TC3, but acknowledge this risk can be reduced by placing a raft of non-liquefiable fill, or other ground improvement, and selection of appropriate foundation systems for residential dwellings.*
- *Further, the alluvial soils across parts of the site of very soft and will subside (consolidate) when subject to additional loads (or changes in groundwater levels).*
- *Engeo identify the possible need for pre-loading and monitoring to mitigate the risk of subsidence occurring. I agree that this is one possible method of limiting the risk of subsidence.*

Stormwater

225. Mr Aramowicz comments:

- *The DLS (Davie Lovell Smith) Infrastructure Design report did not investigate whether the discharge of stormwater could result in an increased flood hazard to downstream properties where there is already an existing high flood hazard.*
- *However, based on existing WDC flood hazard modelling, and given the nature of the site, I expect that with careful engineering, the effect of any additional stormwater runoff from a future subdivision can be largely mitigated using onsite attenuation.*

Wastewater

226. Mr Aramowicz comments:

- *WDC's Chris Bacon has advised there are no existing services to the site, therefore, wastewater would need to connect to the existing services located at either Waikuku Beach or Ravenswood/Pegasus.*
- *WDC should consider whether it requires any developer-laid services to be upsized to allow for additional connections/capacity.*
- *Regardless, in summary, there are no known significant wastewater constraints that would prevent the proposed land use.*

Potable water

227. Mr Aramowicz comments:

- *Chris Bacon has advised that there are no existing water services to the site, and therefore a new development would need to connect to the existing services located at either Waikuku Beach or Ravenswood (or alternatively establish a compliant onsite water supply well).*
- *DLS note issues with nearby onsite wells. There is no certainty provided that a DWSNZ compliant water supply could be provided onsite. Given this, it seems the lowest risk option is to connect to the existing WDC network.*
- *WDC should consider whether it requires any developer-laid services to be upsized to allow for additional connections/capacity. Note there is a CDWSPZ in the area.*

228. *In summary, there is a risk of subsidence due to the presence of soft alluvial soils. There is also a moderate to high risk of liquefaction. Regardless, there are geotechnical solutions that can be used to reduce the risk of these hazards occurring. While there are areas of low-medium flood hazard associated with a large overland flow path that crosses the site, based on existing WDC flood hazard modelling and the submitter's submission, I expect that with careful engineering, the effect to downstream property from any additional stormwater runoff from a future subdivision can be largely mitigated using onsite attenuation.*

Transport:

229. Mr Binder comments:

- *From a transport servicing perspective, the proposed ODP has a good arrangement limiting access to/from SH1 but concentrating on via Gressons Rd and central Ravenswood area. Waka Kotahi is very sensitive to operational and safety impacts to the State Highway from additional accesses which the proposed ODP appears to limit.*
- *I consider that this area at present is not well served for walking, cycling, or PT, and has reasonable constraints on private motor vehicle service. However it is proximate to higher-service networks so will require some investment in connections to enable service in this area. I consider this to be entirely surmountable.*
- *I recommend not having a road access opposite the existing Macdonalds Lane intersection; four-way crossroads perform relatively less safely due to turning conflicts.*
- *I recommend cycleway connections be included in the ODP along the State Highway and Gressons Rd frontages.*

Urban design

230. Mr Jolly makes the following initial comments:

- *The ODP is effectively a greenfield development that bridges between the Ravenswood and the Waikuku settlement. From an urban design perspective this could be a useful transition of residential development from Ravenswood Town Centre. For example medium density residential adjacent to Ravenswood Town Centre, suburban density residential to the north of the proposed ODP site and then the low density of the rural residential lifestyle within Waikuku. However it is recognised this may also result in loss of legibility and character of Waikuku as a stand-alone settlement with rural pastoral land separating it from the urbanised fringe of Ravenswood.*
- *From a connectivity perspective the proposed layout of the north/south primary streets will provide good legible connection to the emerging Ravenswood Town Centre, a key focus for retail and employment in the area. These connections also align with streets/vehicle access routes within the Waikuku settlement. The connectivity into Ravenswood provides potential alternative vehicle routes*

to State Highway 1 as well as cycle and pedestrian connectivity opportunities. It is noted that an area of stormwater management has been developed with the Ravenswood ODP between the future town centre and the Sparks site. Therefore the success of stitching the two ODPs together with these north/south connections is reliant on changes to the layout of the stormwater management area within the Ravenswood site.

- The overall street hierarchy proposed with primary connectors supported by secondary streets at regular intervals sets up a logical and effective grid for development which will promote good legibility and wayfinding internally within the ODP. It is noted that from the 'sketch' plans provided (figures 1&2) that due to lack of a legend to the plans and clear description the extents of the street network not completely clear. It is assumed that the black dashed lines are primary routes, the red dashed lines are secondary streets and the dotted yellow/brown lines are pedestrian and cycle routes. The diagram also illustrates where local streets and lanes will be located within each block in thick black solid and dashed lines (figure 3).
- In addition to the network of north-south and east-west streets proposed there are a number of pedestrian and cycle routes that follow riparian corridors, green links and openspaces. The result is a potential high quality active movement opportunities for future residents.
- In terms of the water courses identified in the proposed ODP (light and mid blue colours) it is unclear if these are daylighted streams, drainage 'swales' or culverted stormwater diversions. Hence the quality of the proposed 'blue-green corridors' is uncertain. It is also unclear in terms of proposed setbacks if they are in addition to councils' standards and wide enough to result in ecological enhancement and allow pedestrian and cycle paths.
- The proposal provides two public openspace reserves as well as 'green space' setback from the state highway. The larger 3.0 Ha centrally located reserve will provide a focus for future community residents. It is well located and benefits from connecting to the proposed green corridor and link. The smaller reserve is an elongated space which straddles the green corridor. This space could be improved and planned such that it has a more useable footprint, a more regular shape rather than the proposed lineal space. The green space adjacent to the state highway is generous and has the potential to provide passive recreational opportunities for future residents as well as stormwater management. Limited detail is provided in the ODP in terms of how activity is planned for this space. It is noted that the ODP also identifies a future 'Community Hub' although limited detail is provided in terms of what this activity is, it's proposed location adjacent to the larger open space is well considered reinforcing the openspace as a potential future community focus.
- The proposed ODP does not provide much clarity on future lot orientation or size. As discussed above the site has the potential to provide a transition from the centre of Ravenswood north to Waikuku. Hence there is an opportunity to provide a range of lots sizes. Lots consistent with medium density 200-300m² could be proposed along the southern boundary within walking distance of Ravenswood and then more generous lots in the order of 500-600m² to the north of the site (aligning with the GRZ and OSZ). It is noted that if the approach was undertaken it would be important to provide additional open space to enable medium density within the blocks surrounding these lots within the southern half of the site.

Applicant evidence

Person/Organisation	Evidence type
Mr Andy Hall	Infrastructure
Mr Neil Charters	Geotech
Mr Chris Rossiter	Traffic

Mr Gary Sellars	Market Valuation
Ms Nicole Lauenstein	Urban Design
Mr David Robotham	Environmental
Mr Jonathan Cleese	Planning
Mr Matt Lester	Landscape
Ms Natalie Hampson	Housing Capacity
Mr Paul Farrelly	Greenhouse Gas Emissions
Mr Ronald Payne	Ecology
Mr Victor Mthamo	Soils

Discussion

231. The site is a large area of rural land between Ravenswood in the south and Waikuku in the north. It is currently a dairy farm, owned by the submitters.
232. The applicants propose that the development will provide up to 1500 households regardless of if it is zoned as GRZ or MDRZ. I note that Mr Sellars' has calculated the yield to be approximately 13 hh/ha, which I consider is under the requirement in SUB-S3 for at least 15 hh/ha to be achieved, as no demonstrated site constraints have been outlined, however, I do not consider this deviation from SUB-S3 to be significant in my overall assessment as additional density can be obtained from the development and/or required of it in order to achieve the permitted activity standard.
233. On geotechnical matters, Mr Charters, for the submitter, considers that the site is of a low to moderate risk of liquefaction, however Mr Aramowicz, for the Council, considers that the site is of moderate to high risk. Both engineers consider that mitigation and land treatment options are available to deal with the risk.
234. On natural hazards Mr Hall, for the submitter considers that stormwater flows above a 1:50 return period will be managed by the formation of a green space strip running along the site's western boundary to intercept overland flows from this direction, which will then be directed through the central portion of the site, to the storm water management areas, and then leaving the site via the existing SH1 culverts. For Council, Mr Aramowicz has not commented specifically on the adequacy of these onsite measures, although I expect that they would likely be sufficient. He has however raised concerns with the high water tables and potential coastal inundation where the stormwater management areas exit the site. Mr Hall has noted that the SH1 culverts may not have sufficient capacity²⁷, and that the Council waterways downstream may not have sufficient capacity due to maintenance.
235. I consider this to be a substantive matter. If stormwater cannot be effectively disposed of on site, and/or is reliant on the downstream capacity of the waterways in which it enters. I note Mr Aramowicz is concerned about high water levels and coastal inundation downstream, rather than maintenance of waterways. Also, if the stormwater system is dependent on upgrading the SH1 culverts, then development may not be able to proceed until this occurs. I do not consider that submitters have supplied sufficient information on the downstream capacity for stormwater for me to be able to make a recommendation on the stormwater component of this rezoning proposal.
236. On three waters, the engineers appear to be in relative agreement. The potential to connect this proposed site to the wastewater network exists, however, upgrades will be required. It is the same for potable water, with Mr Aramowicz noting that the safer option would be to connect the site to the existing town supply, rather than to use bores. All of these options will require development and/or financial contributions, and would have to be in place prior to the issuing of titles.

²⁷ Section 8.19 Mr Hall, EIC.

237. On transport Mr Rossiter, for the applicant, has considered that there is sufficient capacity to absorb the additional traffic generated by an additional 1500 households, primarily through an additional roundabout on SH1 at the Gressons Road/SH1 intersection, and also through Ravenswood. Mr Binder, for Council, is supportive of limiting accesses onto SH1 to Gressons Road and the existing Ravenswood access, although he notes that this is an NZTA, rather than Council matter. Mr Rossiter notes that the area is well-suited to cycling and pedestrian networks, and an addition to the existing public transport network that serves Ravenswood. Mr Binder also considers this to be a substantial opportunity presented by the proposal, and also requests that a cycleway is provided alongside SH1 as part of this development, if it were to proceed.
238. Mr Binder considers that the proposed access onto Gressons Road should not occur opposite Macdonalds Line, as four way intersections create safety issues.
239. I note that as I consider 1500 households at 13 hh/ha to be too low, that additional traffic over and above what Mr Rossiter may have modelled, will be generated. This is unlikely to be an issue and I do not consider it to be substantive or determinative on my recommendation, however, I consider it should still be modelled.
240. On ecology, Council did not seek specific ecological advice. For the submitter, Mr Payne considers that the site has low ecological values at present, but that there are some moderate ecological values remaining in Stokes Drain, which would be enhanced as a result of this proposal. Mr Payne also notes the extensive wetlands that would be created in the stormwater management areas. I note the request from manawhenua to ensure the retention of existing mature native trees, the protection of existing waterways and their enhancement with suitable buffers.
241. On greenhouse gas emissions, Mr Farrelly, for the submitter has provided an assessment of greenhouse gas emissions as a result of the proposed development. Mr Farrelly, in his conclusion has stated that the proposed redevelopment “supports a reduction in GHG emissions”²⁸, by way of removing dairy cows from the land. Council has engaged BECA to review that assessment. In contrast to Mr Farrelly, the BECA review finds that the proposed development would result in substantially higher emissions than the baseline dairy farm scenario. I reproduce Figure 3 from the BECA review below:

²⁸ Para 9.1, Mr Farrelly, EIC

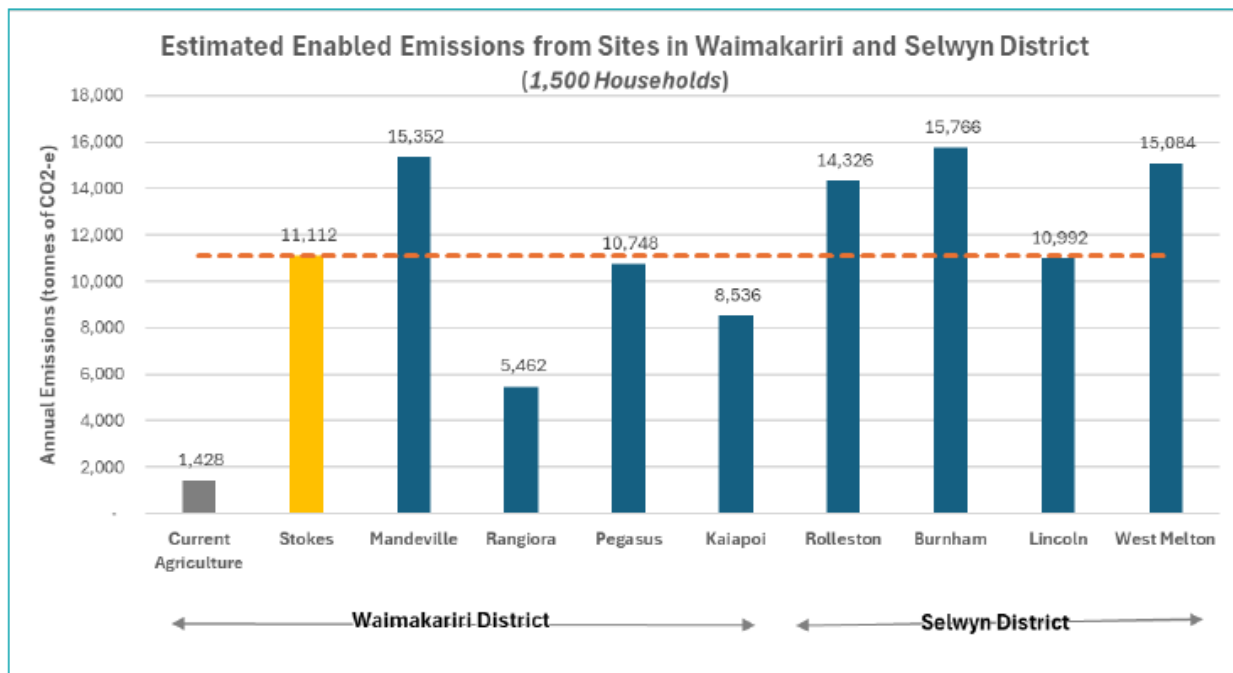


Figure 3 – Estimated emissions from transport based on 2028 modelled daily average trip length – ordered by distance to the Christchurch CBD

Figure 24 BECA Stokes GHG review (Figure 3 within this review)

242. According to the BECA review, GHG emissions rise from 1426 tCO₂e to 11,112 tCO₂e based on expected transport patterns in 2028 with the proposed number of households²⁹. This is a substantial difference from what the submitter has stated. It appears that new development sites have a higher emissions than the existing towns of Rangiora and Kaiapoi, but that all proposed greenfield developments will have higher emissions than the farms they replace.
243. This may be determinative on the proposal in the overall context of where developments should be located in the district, as I consider that given both the NPSUD and CRPS requirements to reduce carbon emissions, most of which in this context come from private vehicle VKTs, if developments can be located closer to Rangiora or Kaiapoi, their emissions will be substantially less, but still more than rural land.
244. On urban design, Ms Lauenstein, for the submitter notes that the proposed site will achieve the minimum density required of just over 12 households per ha, but does not preclude a higher density of 15 households per hectare. Mr Jolly has commented that the southern area of the development is better suited to higher densities, with larger lots potentially being available further north. From a planning perspective, I note that subdivision standard SUB-S3 does not set a minimum of 12 hh/ha, it sets a minimum of 15 hh/ha, except where constraints are demonstrated. The urban design, amongst the other evidence, does not currently consider this requirement of the PDP.
245. On the other aspects of urban design, I consider that Mr Jolly and Ms Lauenstein are largely in agreement, noting Mr Jolly's concerns on the following aspects of the design:
- The potential loss of landscape legibility and character, noting that manawhenua have also raised this as a concern

- The need to change the existing stormwater management areas north of Ravenswood to ensure connectivity between the two developments. Ms Lauenstein has briefly commented on this³⁰.
- The lack of detail on the quality of the blue-green corridors and networks.
- The lack of detail of the proposed community hub.
- The lack of detail on the proposed lot sizes, their layout, and orientation.

246. Apart from yield, which I discuss below, whilst I consider that these aspects of the design should be clarified, or improved, I do not consider them to be determinative on my recommendations.

Overall consideration

247. **I consider that there is scope from the submission to consider a rezoning under Variation 1.**

248. **In respect to the scope of the Variation itself, I consider that this land was not included within the Variation, and as such, extensions to it, whether as a relevant residential zone, new residential zone, or an NPSUD Policy 3 area, are not within scope of the Variation. Variation 1 proposes no changes to the zoning or associated provisions for these properties.**

249. **I do not consider there is scope to rezone these properties as the request is not “on” V1. Under the *Clearwater* and *Motor Machinist* tests, it is a large area of new land – not incidental and consequential - and was not notified for public submission, and as such I consider there may be affected persons who have not had an opportunity to submit on it.**

250. **As such I do not consider there is any scope to amend the boundaries of the ‘relevant residential zones’. As such I recommend that the submission is rejected.**

251. **Even if there was scope, I consider that I lack sufficient evidence on the following aspects of the proposal to be able to recommend approval of the development at this time:**

- **Downstream capacity for stormwater, both through the culverts under SH1, and beyond.**
- **The yields that the subdivision will achieve, particularly in respect of the PDP requirements to achieve 15 households per ha.**
- **The rule framework, and/or other mechanisms that will ensure that the necessary upgrades occur prior to beginning development, and/or staged throughout the development.**

9.1.3 Recommendations

252. That the following outcome for submissions occurs:

- That B and A Stokes [V1 29.1, V1 29.2, V1 29.3] are **rejected**

9.1.4 Amendments

253. No amendments are proposed.

³⁰ Pg 31, Ms Lauenstein, EiC

10 Rezoning requests in and around Kaiapoi

10.1 Kaiapoi development area

10.1.1 Matters raised by submitters

254. Momentum Land Ltd [V1 43.1, V1 43.2, V1 43.3] oppose the notified Kaiapoi development area ODP, as it does not reflect the submitter's development intentions for the development of the site. Amend the notified Kaiapoi ODP to reflect the ODP prepared by the submitter.

255. This is opposed in further submissions from CIAL [V1 FS 15].

256. The area is:

- Currently zoned in the operative district plan as rural;
- Proposed in the PDP as rural lifestyle.
- Inside the projected infrastructure boundary, as set out in Map A of the CRPS.
- Inside the shaded areas within Map A, CRPS.
- Inside the Kaiapoi new development area.
- **Not proposed for rezoning under Variation 1**

10.1.2 Assessment

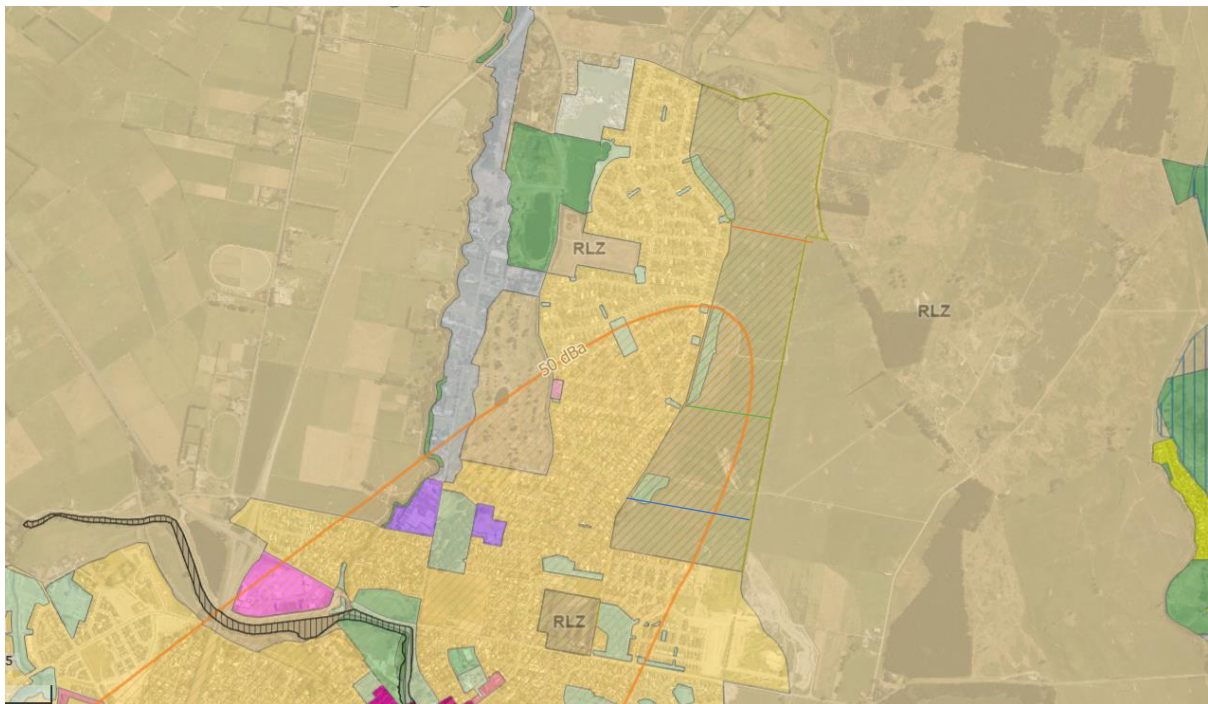


Figure 25 Kaiapoi Development Area

257. There are two approaches to considering this submission:

- Treat it as a rezoning request under V1
- Treat it as it is stated as a request to amend the ODP.

258. I consider both interpretations in my assessment, beginning with the rezoning assessment.
259. The Kaiapoi Development Area is the hatched area of green in the map above. It consists of two blocks – the larger north block, and the south block, which is an enclave surrounded by residential land. Most of it is a future development area in the context of Map A, CRPS, however the southern part of the northern block, up to about the blue line, is a greenfields priority area. Both blocks are currently zoned as rural but proposed for rural lifestyle zoning under the PDP. Momentum Projects Limited is the primary developer in the southern half of the northern block and on the southern block. Suburban Estates Limited is the developer for the northern half of the northern block.
260. Momentum are the current developer of the Beachgrove development to the south, which I understand is approaching its last stage. Beachgrove was/is a LURP action and greenfields priority area in the context of the CRPS.
261. The FDA area was added to the CRPS through Change 1 to the RPS in 2021, following a substantial structure planning exercise by the Waimakariri District Council to identify greenfield areas for future growth.
262. The map above shows the following:
- The green line is the extent of the Momentum submission and rezoning proposal. They wish to rezone the land between their existing Beachgrove subdivision to the south (coloured orange) and the green line.
 - The blue line is my understanding of the extent of the greenfield priority area as set out in Map A, for Beachgrove. It is separate from the FDA.
 - The orange line in the top of the block is the southern extent of the Suburban Estates development.
 - The middle part of the block has no current active developer, but is subject to submissions requesting it to be rezoned.
 - About one third of the northern block and all of the southern block is subject to the 50dBA airport noise contour, in Map A, CRPS.
263. The engineering advice below covers both the northern and southern blocks. I note that Momentum have provided evidence I consider to be approaching a subdivision consent standard, whereas Suburban Estates have not provided technical evidence.

Natural hazards

264. Mr Aramowicz comments:
- *Both s173 and s208 sites are within an area where the modelled flood depth exceeds 1m in a 200yr Coastal Inundation event, but only a small part of the s208 exceeds 1m depth. Refer the areas of s173 and s208 highlighted on the following excerpt from the Coastal Inundation flooding map;*

- *In relation to the existing ground conditions, T&T indicate that without ground improvement/earthworks, the s173 site would be TC3 (high risk of liquefaction). T&T proposed perimeter ground improvement to mitigate the risk of lateral spreading towards swales, and for placement of compacted fill with geogrid reinforcement, to reduce the risk of liquefaction-induced damage to shallow foundations. T&T also identify that preloading of the s173 site will be required to mitigate the risk of consolidation settlement. I agree that ground improvement and monitoring are common.*
- *In relation to the s208 area [Suburban Estates], geotechnical conditions are likely to be better than those at s173 [Momentum]. It is expected filling of the s208 site will be required to mitigate the risk of inundation and to achieve satisfactory conditions that can support shallow stiffened TC2 type foundations for future residential dwellings.*

Stormwater

266. Mr Aramowicz comments:

- *T&T have calculated the flood storage volume needed for attenuation of SW runoff, and assumed a wetland SWMA system will be provided for treatment of stormwater runoff. I agree that a wetland system is appropriate for treatment of stormwater runoff from the site.*
- *A similar system is likely to be require for treatment and attenuation of SW runoff from the s208 site.*

Wastewater

267. Mr Aramowicz comments:

- *The submitter for the s173 site has demonstrated how to convey WW to the Council network, and there is provision in the LTP for WW capacity to service the proposed development. In summary, there are no known significant constraints that would prevent the proposed land use.*
- *The ODP provided in the application for s208 identifies a wastewater pump station, and therefore, it is assumed it is intended that provide a gravity wastewater network draining to a pump station that discharges to a suitable location within the WDC network.*

Potable water

268. Mr Aramowicz comments:

- *There is provision in the LTP for capacity to service the proposed development at the south block (KAG08) in yr0-3 and the north block (KAG10) in yrs11-20. In summary, there are no known significant water supply constraints that would prevent the proposed land use.*

Summary

269. *Application sites s173 and s208 have a risk of subsidence from deposits of soft alluvial sediment, a moderate to high risk of liquefaction, and a moderate to high flood hazard from both an Ashley River breakout event and from coastal inundation with a mean sea level of 1.0m. These hazards can be mitigated by ground improvement and filling of the site to a suitably high level.*

Transport

270. Mr Gregory has reviewed the evidence of Mr Carr and makes the following overall comments:

- *Ability of public transport to service the subdivision, including the design of an ODP which maximises catchment and futureproofs opportunities to develop the catchment into future development stages of northeast Kaiapoi.*
- *The intersection of Beach Road / Tuhoë Avenue, and delays in the morning peak (including delays to future public transport services), and the greater vehicle flows using Tuhoë Avenue than Beach Road, possibly suggesting need for change in intersection priority.*
- *Capacity of Williams Street / Beach Road roundabout, and the likelihood of signals being required.*
- *Public transport services would require accommodation in the design of the spine road, as well as an ODP which would provide the connectivity required to deliver public transport walkable catchments. An outcome of 90% of dwellings within the public transport catchment is a requirement of the operative District Plan. The public transport route has capacity to service commuted trips to Christchurch city, noting that half of Kaiapoi residents commute to Christchurch city.*
- *I therefore conclude that the ODP should be developed to accommodate public transport. This would also include measures to resolve delays on Tuhoë Avenue, which would also impact on public transport vehicles.*
- *In my opinion, the Williams Street / Beach Road intersection should be signalised. The evidence of Mr Carr considers a range of possible development outcomes (and subsequent development traffic), and he recommends network mitigation scaled to each outcome. However, I specify reasons why I consider that the minimum mitigation would not be effective, and further that a threshold for signals would likely occur at a point of increased demand which would be far lower than that generated by the maximum development outcome.*
- *In my opinion, a development outcome mid-way between minimum and maximum would likely require generate the need for signals, and this should be tested in modelling.*
- *Further consideration should be given to northeast Kaiapoi, and the possible need for designation to support intersection upgrades. Staging of the development and infrastructure should be planned concurrently.*

271. For the wider development area, Mr Gregory notes:

- *I would support an assessment which commits to safeguarding and developing a north-south public transport corridor, and achieving 90% of development within the public transport catchment which at least meets the operative plan requirements. I would further support inclusion of walkable neighbourhood centres, and delivery of a quality active travel connection to Kaiapoi town centre.*
- *Intersection upgrades, such as the Williams Street / Beach Road intersection should be identified. The outcome for submission #173 – which was for approximately one third of the traffic which could occur under this submission – was a signalised intersection, contained within the road boundary. In my opinion, there is a possibility that a larger*

intersection could be required if the rezoning sought in submission #208 was also granted, and this will require appropriate consideration, including use of a strategic network model.

- *In conclusion, strategic planning to develop quality multi-modal transport outcomes within the ODP (and surrounding improvements) will be the key to achieving an efficient and well-functioning transport outcome.*
- *In summary, there is a risk of subsidence due to the presence of soft alluvial soils. There is also a moderate to high risk of liquefaction. Regardless, there are geotechnical solutions that can be used to reduce the risk of these hazards occurring. While there are areas of low-medium flood hazard associated with a large overland flow path that crosses the site, based on existing WDC flood hazard modelling and the submitter's submission, I expect that with careful engineering, the effect to downstream property from any additional stormwater runoff from a future subdivision can be largely mitigated using onsite attenuation.*

Greenspace:

272. Mr Read comments:

- *In the event of a zone change and residential development of land subject to the Momentum and Suburban Estates submissions, provision of neighbourhood park greenspace is already anticipated by the applicable Structure Plan and proposed Outline Development Plan. Depending on residential density, the two parks proposed may not be adequate to meet Council's level of service requirements for neighbourhood park provision. Any required increase can be achieved by enlarging the proposed park sites, or via the addition of a further park within the proposed ODP area. Requirements can be calculated by referencing Waimakariri District Council's level of service requirements for neighbourhood park access in urban and suburban areas. This requires most residents to be within 500m, or a 10-minute walk, of a neighbourhood park; and 1.0ha of park space to be provided per 1,000 residents (approx. 420 dwellings). In addition, the minimum viable size for a neighbourhood park is 0.3ha.*
- *The priority location for parks is close to medium density areas and within required access distance of general residential sites. Connectivity with a road frontage and green off-road linkage networks is advocated. Community connection to an enhanced McIntosh Stream corridor will be important in activating recreational opportunities and environmental enhancements that promote community development and interaction.*

Greenhouse gas emissions

273. On behalf of Council BECA is reviewed the GHG evidence provided by the submitter on 2 July 2024. This may require a supplementary s42A, or be addressed at the hearing.

Applicant evidence

<u>Person/Organisation</u>	<u>Evidence type</u>
Mr Brian Putt	Planning (3 May 2024)
Mr Mark Allan	Planning (9 May 2024)
Ms Anna Sleight	Geotech
Mr Mark Morley	Contamination
Mr Geoffrey Dunham	Soils

Mr Manu Miskell	Infrastructure
Mr Andy Carr	Transport
Mr Bruce Weir	Urban Design
Mr Danny Kamo	Landscape
Mr Richard Brunton	Flooding
Mr Fraser Colegrave	Economics
Ms Annabelle Coates	Ecology
Mr Robert Wilson	Greenhouse Gas Emissions

Discussion

274. I met with consultants for the submitter Mr Chris Fowler, Mr Mark Allan, and the developer Mr Shane Fairmaid, on Tuesday 19 March 2024 in regard to the submission following the receipt of their evidence. I advised them of the potential requirement, arising from discussions with Mr Jolly, to add an additional neighbourhood park in the southern part of the development.
275. The Kaiapoi FDA is a future development area as set out in Map A, CRPS. It is currently zoned as rural, and proposed for rural lifestyle, in absence of any rezoning submissions. There is land in the middle of the northern block owned by Christine Susan Curry, John Joseph Ryan, Joseph Patrick Ryan, Mary Anne Brown, Michael John Ryan, Susan Patricia Giles, and also in the area of the Suburban Estates submission owned by John William Wakeman and Jane Patience Wakeman who have not submitted on the PDP. The Moore's, in the southern part of the block and the small southern block are joint submitters with the developer.
276. There appears to be considerable alignment amongst the expert advice received by Council and that received from the applicants, with the differences appearing to be of a technical rather than strategic nature, and what I would consider would be of the nature of the input that occurs into a subdivision consent process.
277. I consider that the two primary issues associated with the Kaiapoi FDA are flooding and airport noise. I discuss each of these below:

Flooding

278. The experts agree that the area currently has a high degree of flood risk. However, the experts also agree that the risk can be mitigated through raising of the land, much as occurred with the Beachgrove subdivision. The degree of land raising is substantial, between 1.5m-3m, but the evidence from the submitters outlines that this is feasible, given the close source of gravel from the Waimakariri River. The Beachgrove development itself shows that it is feasible.
279. The displacement modelling by Mr Brunton shows some displacement occurring as a result of the developments, particularly flowing south and east through the Kaiapoi Reserve, but that the additional effects of this over and above the amount of water that the area would already receive in a flood event are minimal. Council experts have agreed with this assessment.
280. I note that the flood risk in the area is that of ponding, or static rising water levels, rather than the velocity breakout flow that other parts of the District are exposed to. Mr Bacon notes the difference as follows:
- *I also note that the dynamics of the flood hazard in West Rangiora is very different to the flood hazard in Northeast Kaiapoi. In the Northeast Kaiapoi area the flood hazard on the*

*undeveloped land has been assessed as 'High' and is predicted to have much higher flood depths than those predicted in the West Rangiora area from the Ashley Breakout. The flood hazard in West Rangiora is largely due to fast moving water with moderate flood depths. However the flood hazard in Northeast Kaiapoi is largely due to deep ponding water with very low velocities from a combination of Localised Rainfall and Coastal Inundation.*³¹

281. As I understand it, velocity flow presents more of a risk to life, whereas slow moving ponding water presents more of a risk to property. However, regardless of the specific nature of the risk, if the area was to remain as high hazard without expert evidence suggesting it could be addressed, I could not recommend it be approved for rezoning under CRPS 6.3.12. However, the expert evidence presented shows that this risk can be reduced to low through land raising, and as such, I consider that this requirement of the CRPS can be met.
282. The area is also coastal, and sea level rise may be an issue that needs further understanding in order to finalise the level of fill required. An important component of this assessment would be understanding the nature of vertical land movement in the area, if it exists. Experts have assessed sea level rise based on current Council modelling of risk, but I consider that any subdivision consent process should take into account any updates to sea level rise assessments, an understanding of vertical land movement, and their likely timeframes, as per the advice of Mr Aramowicz.
283. I note that in any modelled flooding scenarios, these newer development that involve land raising are likely to be considerably better off than the older parts of Kaiapoi. For instance, Sovereign Palms, to the west, is of low risk due to the land raising that occurred there, as well as being on slightly higher ground.

Airport noise

284. I discussed this issue in detail in my hearing stream 10A report. I summarise the issue here in the context of rezoning. Part of the Kaiapoi FDA is subject to the 50dBA airport noise contour. However in the context of Variation 1, I am to disregard existing objectives and policies within the CRPS if they are inconsistent with a V1 medium density rezoning.
285. Whilst I note my recommendations in hearing stream 10A (under both the PDP Schedule 1 and Variation 1 ISSP processes) and my recommendations on rezoning under the PDP in respect of the various policy pathways, in the context of a V1 rezoning, I do not consider that the airport noise provisions apply at all in any initial assessment as they are restrictive upon medium density rezoning and development. They may later apply in the context of determining the content of a qualifying matter, but they do not apply as of right. The RMA in this respect disregards the CRPS in how it applies the Variation.
286. However, I note that whilst there is scope from the submission to consider a rezoning, there is not scope from the Variation itself, as this area was not proposed for rezoning at notification.

Overall consideration

287. **I consider that there is scope from the submission to consider rezoning this land.**

³¹ Memo of 12 July 2024 to Peter Wilson from Chris Bacon

288. In respect to the scope of the Variation itself, I consider that this land was not included within the Variation, and as such, extensions to it, whether as a relevant residential zone, new residential zone, or an NPSUD Policy 3 area, are not within scope of the Variation. Variation 1 proposes no changes to the zoning or associated provisions for these properties.
289. I do not consider there is scope to rezone these properties as the request is not “on” V1. Under the *Clearwater* and *Motor Machinist* tests, it is a large area of new land – not incidental and consequential - and was not notified for public submission, and as such I consider there may be affected persons who have not had an opportunity to submit on it.
290. I noted above that if I am to treat this V1 submission as a rezoning under V1, I do not consider that there is scope for it, and I recommend it is rejected.
291. If I am to treat it as a change to an ODP only, I must consider if there is scope under V1 to consider changes to ODPs. V1 did not introduce or amend any ODPs, with these being in the PDP already. Momentum have supplied a detailed ODP and design in their evidence, but I consider that that there is no scope to address this under V1.

10.1.3 Recommendations

292. That the following outcome for submissions occurs:

- Momentum Land Ltd [[V1 43.1, V1 43.2, V1 43.3] is **rejected**
- Further submissions CIAL [V1 FS 15] are **accepted**

10.1.4 Amendments

293. There are no amendments arising on the Variation as a result of these recommendations

10.2 New south Kaiapoi development area

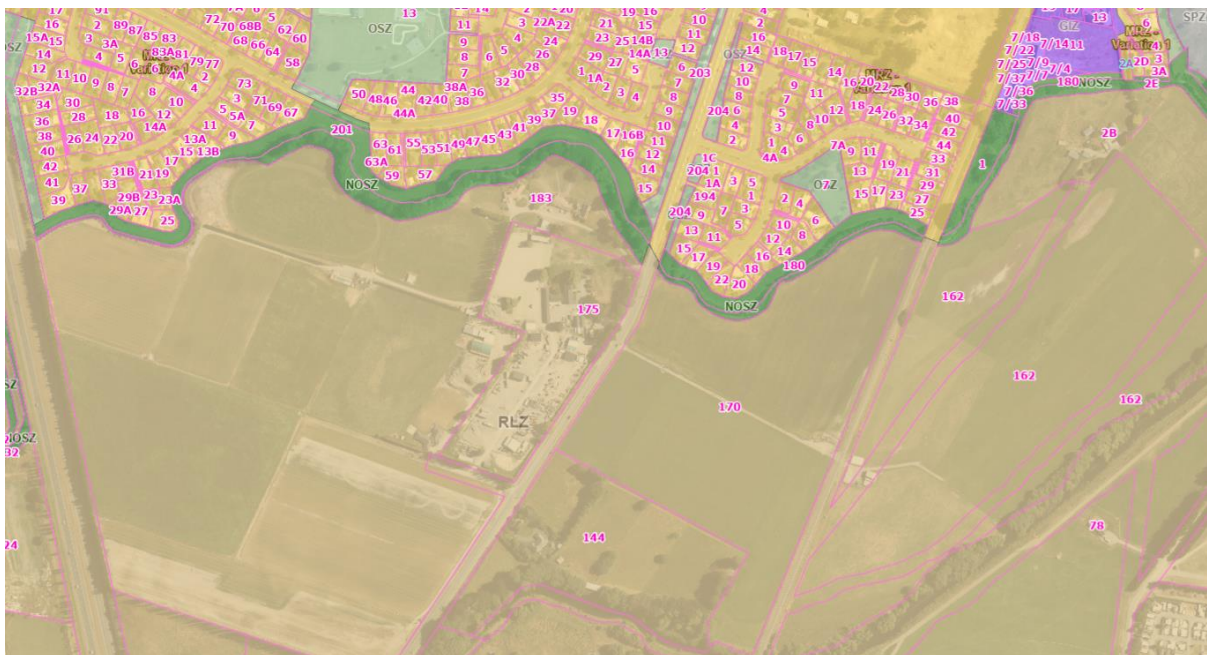


Figure 27 Proposed South Kaiapoi Development Area

10.2.1 Matters raised by submitters

294. Mike Greer Homes [V1 13.1] request an additional 14 ha proposed South Kaiapoi Development Area as an additional New Development Area. The site is located in an area in southern Kaiapoi to the east of Main North Road, west of railway line, and south of the Kaikanui Stream containing the following properties:
- Pt RS 37428 (CB701/7) limited to the land to the west of the Main Trunk Railway Line;
 - RS 39673; and
 - Lot 1 DP 19366.
295. This is opposed in a further submission by CIAL [V1 FS 23]

10.2.2 Assessment

Natural hazards & Geotechnical matters

296. Mr Aramowicz comments:
- *The application site is located at the south end of Kaiapoi. Ground levels across the site appears to fall from the northwest down to the south and southeast.*
 - *The site is bounded by Kaikanui Stream in the north, and Courtenay Stream in the south.*
 - *The south and east parts of the site are at med-high risk of inundation in a 200yr ARI event, and also from an Ashley River breakout event.*
 - *The south and southeast parts of the site were subject to liquefaction and lateral spreading in the September 2010 earthquake, with land spreading into Courtenay Stream.*
 - *The north and west parts of the site appear to be less susceptible to natural hazards.*
 - *ENGEO confirm that many parts of the site have a medium – high risk of liquefaction, and a compounding risk of consolidation settlement due to the presence of soft, saturated alluvial soils.*
 - *The DLS evidence confirms the site would need to be filled to avoid risk of inundation in a 200yr event. While this seems a reasonable approach, it is likely to contribute to an increased risk of lateral stretch and consolidation settlement at the site that will require mitigation.*
 - *Further, the site is in the ‘orange’ part of ECan’s tsunami evacuation area prepared for civil defence purposes. Environment Canterbury note “The orange zone is less likely to be affected by a tsunami and includes low-lying coastal areas that are likely to be flooded in a large tsunami that inundates land”.*
 - *The area downstream of the site that stormwater will flow into already has a high flood hazard, and appears to be influenced by the effects of coastal inundation. A rigorous flood risk assessment will need to be carried out to support a future application for subdivision consent to demonstrate how stormwater runoff from the site will need to be treated and attenuated to avoid adverse effects to downstream properties.*

Stormwater Wastewater, Potable water

297. Mr Aramowicz comments:

- *WDC agree that it is technically feasible to achieve onsite treatment, but the volume needed to attenuate peak flows and the rate at which treated stormwater that can be discharged to Courtenay and Kaikanui Streams can only be determined by hydraulic modelling of a future development. This could be carried out at time of application for subdivision consent.*
- *There is provision in the LTP for capacity to service the proposed development (KAG22) in yrs21-30 associated with the South of Kaikanui Supply Main Stage 2 works, forecast for yr 2052. Submitter identifies solution to construct developer-funded rising main to Parkham St pump station to service the site. There is sufficient capacity within the Kaiapoi WWTP for the proposed In summary, there are no known significant wastewater constraints that would prevent the proposed land use.*
- *There is provision in the LTP for capacity to service the proposed development (KAG22) in yrs21-30, associated with the South of Kaikanui Supply Main Stage 2 works.*
- *In summary, there are no known significant water supply constraints that would prevent the proposed land use.*

Summary

298. *There is a risk of subsidence due to the presence of soft alluvial sediments, a high risk of liquefaction and lateral spreading from earthquake shaking, and a high flood hazard from an Ashley River breakout event (albeit that there are technical solutions that can be used to overcome each of these hazards, such as by placing controlled, compacted fill and ground improvement, and careful hydraulic design and onsite attenuation of stormwater runoff).*
299. *Application sites s173 and s208 have a risk of subsidence from deposits of soft alluvial sediment, a moderate to high risk of liquefaction, and a moderate to high flood hazard from both an Ashley River breakout event and from coastal inundation with a mean sea level of 1.0m. These hazards can be mitigated by ground improvement and filling of the site to a suitably high level.*

Transport

300. Mr Binder makes the following comments:

- *I consider that this site is relatively well-served by public transport (bus service on Main North Road) and cycling/walking (Main North Rd path is across from the site).*
- *I note comments on other sites around future capacity constraints at the Tram Road interchange will apply in this instance, given what I understand as a relatively high likelihood of cumulative effects at the interchange from all new development served by Tram Road on both sides of the SH1 corridor. However at this time, I do not have a quantitative upper limit to the Tram Road motorway interchange.*

- *While the proposed development scheme shows a “recreation reserve” between the site and Main North Road, I consider that some degree of urbanisation of the frontage will still be necessary, potentially including a walking/cycling facility, crossing points, street lighting, street trees, and kerb/channel, and possibly widening of the road reserve.*
- *The southern access should be moved from where shown. Cross-roads intersections are not recommended due to the higher risk of conflicts from turning traffic so I would recommend two staggered t-intersections (from the paper road opposite)*
- *Research has established a pretty strong correlation between New Zealand’s high rate of driveway run-over paediatric fatalities and shared accesses with limited green space. This applies to the north-east and south-west corners of the development – Lots 16-20, 21-23, 25-33, and 180-186. In general I would not support ROW-based urban form, especially where the section sizes are so small.*
- *It is also worth noting that a ROW by definition poorly provides the functions of a road – on-street parking, street trees (with stormwater attenuation, pedestrian shading, heat island dissipation, and speed slowing effects), separated footpaths, street lighting, and sufficient sightlines – so properties that are accessed by ROWs receive a lower level of service.*

Greenspace:

301. Mr Read comments:

- *The overall level of green linkage reserve provision and associated connectivity is appropriate for a proposed medium density residential zone. In combination, the linkages provide landscape amenity and associated recreation benefits, along with the potential for revegetation and ecological enhancement of the Kaikanui and Courtenay Streams. The appropriate vested status of these sites can be confirmed at subdivision stage. Beyond boundary treatments, a well-designed amenity streetscape will be critical in breaking up the built-form dominance of the development’s interior. This is a level of service requirement for Council streetscapes.*
- *The proposed recreation reserve (neighbourhood park) in the north of the development is appropriately located in terms of setting but is under-sized based on Council parks level of service requirements for the proposed resident population. With the indicative residential lot overlay, it also has an unnecessary semi-private context. These issues can be resolved if the extended row of small residential lots is pulled back from the park space or otherwise redistributed to provide a more open and accessible feel to the neighbourhood park as a wider community destination. Council’s requirement for neighbourhood park provision is most residents to be within 500m, or a 10-minute walk, of a neighbourhood category park; and 1.0ha of park space to be provided per 1,000 residents. Given lot numbers, this suggests a park space of approximately 0.4 to 0.45 hectares at this site...exclusive of the esplanade and rail buffer margins.*

Applicant evidence

<u>Person/Organisation</u>	<u>Evidence type</u>
Mr Brian Putt	Planning
Ms Patricia Harte	Planning
Mr Neil Charters	Geotech

Mr David Robotham	Contamination
Mr Geoffrey Dunham	Soils
Mr Jamie Verstappen	Infrastructure
Mr Matthew Collins	Transport
Mr Vikram Singh	Urban Design
Mr Rory Langbridge	Landscape
Mr Gregory White	Flooding
Mr Fraser Colegrave	Economics
Ms Annabelle Coates	Ecology
Mr Robert Wilson	Greenhouse Gas Emissions
Mr William Reeve	Acoustic

10.2.3 Recommendations

302. The applicant seeks a future development area in their submission, however their evidence is focused on rezoning.
303. The applicant has provided a substantial degree of evidence, however, I note Mr Whyte’s comments³² that final flood modelling would be provided as supplementary evidence. As of Friday 12 July, I have not received that supplementary evidence to enable our Council experts to assess the design further.

Flooding

304. I note the flooding and stormwater concerns raised by Mr Aramowicz, and the potential mitigation options raised by Mr Whyte, albeit with Mr Whyte raising the issue of potential displacement flooding onto Main North Road as a result of infilling and earthworks on the site. I note that Mr Whyte in his evidence stated that he would be providing supplementary evidence to consider these effects, but at the time of publication of this report, such evidence has not been received.
305. Both the downstream capacity to receive stormwater and any displacement effects on Main North Road are critical issues for both my consideration of the submission, and as I currently lack evidence on the downstream capacity to receive stormwater, and displacement on the road, I cannot assess this at this time. Thus, I cannot satisfy the requirements in CRPS 6.3.12 on the avoidance or mitigation of natural hazards.
306. If evidence were to be received, I consider, as with other downstream receiving environment capacity issues that have emerged in assessing rezoning submissions, that I would also require planning or legal evidence on how any matters if they were of significance would be addressed prior to development beginning. This could be by way of a rule or other RMA mechanism.

Airport noise

307. I discussed this issue in detail in my hearing stream 10A report. I summarise the issue here in the context of this rezoning. “Existing residentially zoned urban areas, residential greenfield area identified for Kaiapoi, or residential greenfield priority area identified in Map A” are identified as exclusions from the overall prohibition on new development under the 50dBA

³² Para 8, Mr Whyte, EiC

contour. There is considerable contention on the nature of the “Kaiapoi exemption” as I framed it in my previous s42A report.

308. However, as this proposed area for rezoning or a new development area is outside of the areas listed in CRPS Policy 6.3.5(4), the policy overall requires that development that affects the efficient operation of the Christchurch International Airport is avoided. Whilst the criteria in 6.3.11 may provide for the creation of a new development area or rezoning outside of the shaded areas in Map A, 6.3.11(5)(h) probably links to 6.3.5 anyway, due to the requirement not to compromise the operational capacity of strategic infrastructure. The criteria in 6.3.12 for approving development within a development area explicitly references 6.3.5.
309. Thus there is no pathway using the CRPS alone to recommend approving either a new development area or rezoning it.
310. However, I note my application of policy interpretation pathway 2 which requires an assessment of the proposal against the NPSUD, before then applying the aspects of the CRPS that give effect to the NPSUD. I consider that the proposed Kaiapoi FDA, and the requests to rezone it would provide significant development capacity in the context of Policy 8 NPSUD.
311. In the context of a well-functioning urban environment I consider that the flooding and airport noise aspects would be determinative on recommending it. I consider that the CRPS gives effect to, and describes what a well-functioning urban environment is, in the Greater Christchurch context.
312. Policy 8, and the other responsive planning provisions in the NPSUD enable the consideration of development proposals on their merits, stepping outside of any prohibitive or avoidance ‘urban limit’ provisions in lower order documents³³. The responsive planning provisions were designed to step outside urban limits, however, in doing so, as I have stated elsewhere, I consider that any such provisions still have strong weighting, they just no longer require avoidance.
313. The provisions in 6.3.5(4) that prohibit development underneath the 50dBA contour can be reconsidered in their weighting with an NPSUD interpretation. Under such an interpretation, I do not consider there is any spatial prohibition on the siting of new development under the 50dBA contour, instead, the requirement shifts to avoiding the noise effects in buildings within the development. I understand that acoustic experts in their hearing 10A JWS have stated they consider that noise levels in buildings, existing and modern, would achieve 40 dBA indoors with windows ajar.
314. Thus I consider that under either interpretation, and potentially both of the interpretations together, the requirements of 6.3.12(3) to achieve 6.3.7 (the noise provisions) would be met, and the area could either be rezoned as residential, or as a new development area.
315. **However, these policies, especially the CRPS anticipate that there may be effects on affected persons, which may not have been considered in the context of the requirement within the *Clearwater* and *Motor Machinist* tests to consider real effects on affected persons.**
316. **This is a large area of new land outside of the notified medium density zoning in V1, and as such there could be potentially affected parties.**

³³ I do not think for instance that the responsive planning provisions allow natural hazard provisions to be down-weighted for instance.

317. As such I consider that this land was not included within the Variation, and as such, extensions to it, whether as a relevant residential zone, new residential zone, or an NPSUD Policy 3 area, are not within scope of the Variation. Variation 1 proposes no changes to the zoning or associated provisions for these properties.

318. As such, I make the following recommendations:

10.2.4 Amendments

319. In the absence of reviewed supplementary evidence on flooding, that the following outcome for submissions occurs:

- Mike Greer Homes [V1 13.1] is **rejected**
- CIAL [V1 FS 23] is **accepted**

10.3 1 Dale Street, Kaiapoi Qualifying Matter anomaly

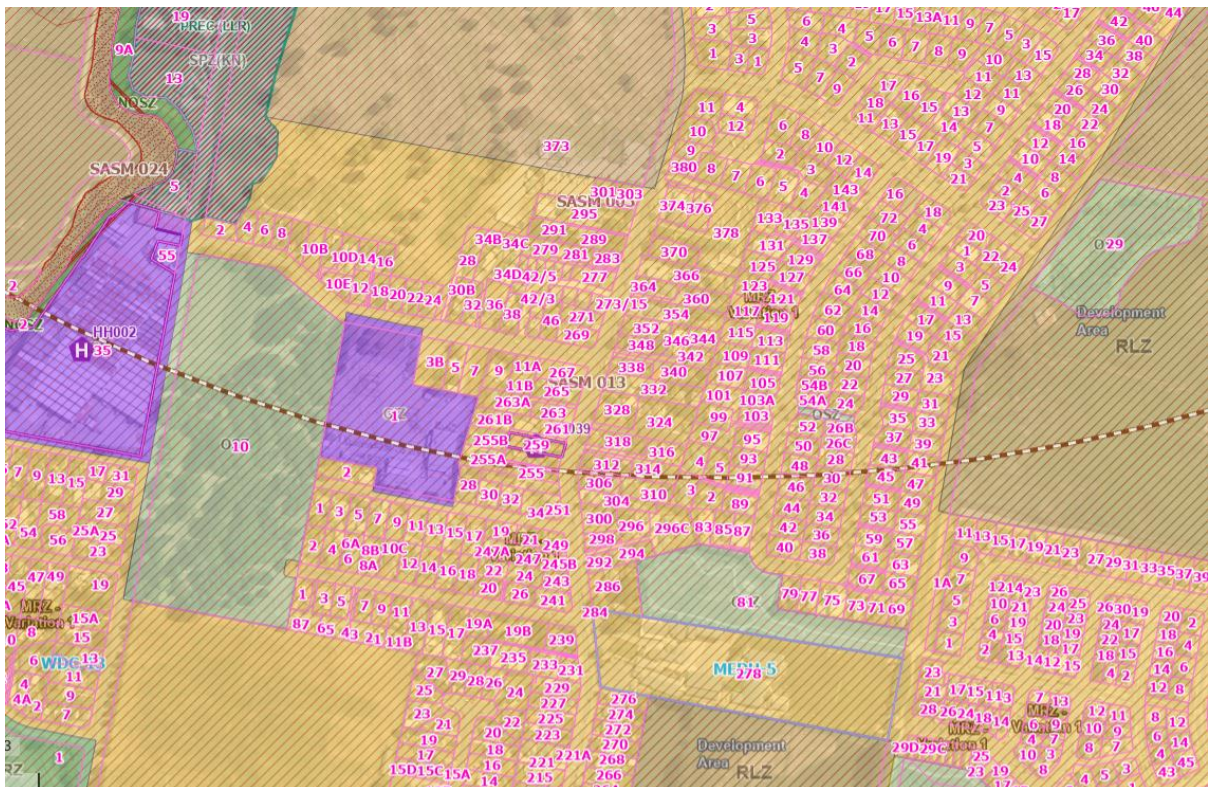


Figure 28 1 Dale Street, Kaiapoi "Sutton Tools site"

320. In considering the qualifying matters in hearing stream 10A, I noted that the airport noise qualifying matter for Kaiapoi is shown on the planning maps as applying to this business 2 zone (proposed for general industrial). Variation 1 does not apply qualifying matters to urban non-residential zones.

321. The property at 1 Dale Street, Kaiapoi is currently zoned as business 2 under the operative plan, and proposed for GIZ (general industrial) under the PDP. It is not proposed for zoning as medium density residential under V1, but still contains the airport noise qualifying matter overlay.
322. At the time of notification of the PDP and Variation, it contained a tool-making factory, owned by Sutton Tools Limited. It is a pocket of business/industrial zoned land that is now surrounded by residential houses, and a park on the western boundary. That tool-making factory has since burned down, in February 2022, and the landowners do not wish to continue with business or industrial land use on the site, having moved to a new manufacturing site in Rangiora. They wish to enable residential land use on the site, consistent with the surrounding zone³⁴.
323. I will address this substantive matter in my reports on hearing stream 7.

³⁴ From discussions with the landowners over potential options for the site following the fire.

11 Conclusions


324. Submissions have been received on Variation 1 to the Proposed Plan. Having considered these submissions and reviewed all relevant statutory and non-statutory documents, I recommend that Proposed Plan should be amended as set out in Appendix A of this report.
325. For the reasons set out in the Section 32AA evaluation included throughout this report, I consider that the proposed objectives and provisions, with the recommended amendments, will be the most appropriate means to:
- achieve the purpose of the Resource Management Act 1991 (RMA) where it is necessary to revert to Part 2 and otherwise give effect to higher order planning documents, in respect to the proposed objectives, and
 - achieve the relevant objectives of the Proposed Plan, in respect to the proposed provisions.

Recommendations:

I recommend that:

- a. The Hearing Commissioners accept, accept in part, or reject submissions (and associated further submissions) as outlined in Appendix B of this report; and
- b. The Proposed Plan is amended in accordance with the changes recommended in Appendix A of this report.

Signed:

Name and Title		Signature
Peter Wilson	Principal Policy Planner	

Appendix A. Recommended Amendments to [Chapter/s]

Where I recommend changes in response to submissions, these are shown as follows:

- Text recommended to be added to the Proposed Plan is underlined.
- Text recommended to be deleted from the Proposed Plan is ~~struck through~~.

Other notes

- [e.g. Consequential changes have been made in this chapter in response to...]

Include the additional Bellgrove North “error parcel” land within the Variation 1 medium density zoning maps.

Appendix B. Recommended Responses to Submissions and Further Submissions

The recommended responses to the submissions made on this topic are presented below:

Submitter Num	FS	Submitter_Name	Provision	Sentiment	Decision_requested	Section of this Report where Addressed	Officer's Recommendation
V1 61.1		Richard and Geoff Spark	General	Amend	<p>Rezone an area of land (approximately 56ha) located north and south of Boys Road, Rangiora from Rural Lifestyle Zone to Medium Density Residential Zone to provide approximately 836 lots. This would be a sustainable and efficient use of resources that better provides for Rangiora's social, economic, environmental well-being than continuation of its increasingly problematic use as a dairy farm. Rezoning will help achieve a compact and efficient urban form. The site is within a preferred business growth direction in the District Development Strategy, however residential growth, or both, is more appropriate. The certification process for providing development capacity is uncertain and slower than rezoning. Variation 1 does not rezone a sufficient area of land for residential to meet predicted demand; thus additional land is needed to avoid impacts on housing affordability. Rezoning the site will add further developers to promote a competitive land market, as required by the National Policy Statement on Urban Development (NPS-UD).</p> <p>The part of the site north of Boys Road is within the South East Rangiora Development Area and is a Future Development Area, thus needs to be rezoned urgently to give effect to Policy 12 of the Canterbury Regional Policy Statement (CRPS).</p> <p>The part of the site south of Boys Road, to the west of the Eastern Bypass between Boys and Marsh Roads will become isolated and thus difficult to farm so should be rezoned for residential, or BIZ, or large format/mixed use (or a mix). Rezoning this area is provided for in the NPS-UD as it provides significant development capacity, ensures there is 'at least' sufficient capacity to meet housing needs, and contributes to a well-functioning urban environment.</p> <p>This submission should be read alongside the submitter's submission on the Proposed District Plan, except where this submission provides an update to the relief sought. Rezone all land north and south of Boys Road outlined in red on Figure 1 below (refer to full submission for Figure 1) ('the site') the Medium Density Residential Zone (MDRZ). With respect to the land south of Boys Road and west of the eastern bypass, in the alternative, rezone to MDRZ, BIZ, Format Retail/Mixed Use, or a mix. The site is part of</p>	Section 8.1	Reject

				<p>the Spark dairy farm, located at 197 Boys Rd, Rangiora. The land north of Boys Road is contained in four titles (19 Spark Lane - Lot 2 DP 418207, Lot 3 DP 418207, Part Rural Section 1436, and 234 Boys Rd - Lot 1 DP 22100). It includes the Rossburn Events Centre and Northbrook Museum at 17 Spark Lane (Lot 1 DP 418207). Land south of Boys Road (approximately 30 ha) is part of the larger Sparks farm title (Lots 1, 3 DP 418207 Lot 1 DP 80780 Lot 1 DP 80781 RURAL SECS 1883 1884 2452 2512 PT RURAL SECS 316 358A 387 1436 1438 BLK VII XI RANGIORA SD 1) (refer to figure 2 of the full submission for map of Spark farm).</p>		
V1 26.3	Doncaster Development Ltd	SD-O2	<p>Requests a more appropriate provision for medium density housing for Rangiora that only applies to parts of the Rangiora located within walking distance, or 800m, from the town centre, and the balance of residential areas, including 260-282 Lehmans Rd and 32 Parrott Road, Rangiora ('the site'), being General Residential Zone.</p> <p>Requests Council identify parts of Rangiora that should remain General Residential Zone as a qualifying matter as a blanket approach to medium density housing is unsuitable in Rangiora's generally low density suburban environment with high standards of residential amenity and urban design. Medium density housing should be clustered in pedestrian proximity to the town centre and public transport hubs. However, if this is not possible, then its requested the site be considered within the scope of Variation 1 as if it was already General Residential Zone, not Large Lot Residential Zone.</p> <p>The submitter's submission on the Proposed District Plan requested the site be rezoned General Residential Zone, and further supports this submission on Variation 1.</p> <p>Considers Variation 1 will not provide for Objective 1 and 2, and Policy 1, 3 and 4 of the Medium Density Residential Standards in Schedule 3A of the Resource Management Act 1991. Variation 1 is also inconsistent with the overall provisions of the Resource Management Act, and beyond the needs of the National Policy Statement on Urban Development.</p> <p>An Outline Development Plan and Zoning Map is</p>	Section 6.1	Reject	

					<p>provided in Attachment B (refer to full submission). A Infrastructure/Servicing Report is provided in Attachment C (refer to full submission) which outlines proposed earthworks and infrastructure required for the site's development. A Infrastructure Options Report is provided in Attachment D (refer to full submission) and concludes that flood hazard and utility servicing would not be impediments to development of the site to any reasonable density of residential development. Allow in full the submitter's submission on the Proposed District Plan and include 260-282 Lehmans Rd and 32 Parrott Road, Rangiora in the General Residential Zone, along with adjacent areas of Rangiora, if Variation 1 is appropriately modified to enable that outcome.</p> <p>Alternatively, rezone 260-282 Lehmans Rd and 32 Parrott Road, Rangiora to Medium Density Residential Zone if Variation 1 proceeds in approximately its notified form.</p>		
V1 26.3	FS 23	FS Kainga Ora		Oppose			Accept
V1 26.3	FS 23	FS Transpower New Zealand Ltd		Neutral			Accept

V1 40.1		Ben Dormer	MRZ-BFS5	Amend	<p>Rezone 70 Oxford Road, Rangiora (0.81ha) ('the site') from Rural Lifestyle Zone to Medium Density Residential Zone (MDRZ) to yield 15 residential lots which would contribute towards meeting Rangiora's housing needs. It will help achieve a compact, and efficient, urban form with connectivity with multiple transport modes and will contribute to a well-functioning urban environment. Adverse effects will be minimal and mitigatable.</p> <p>The site is a logical and preferred location for Rangiora's urban growth as it adjoins existing urban development to the north and east and is located within the West Rangiora Development Area and a Future Development Area (FDA). The FDAs for Rangiora need to be rezoned now give effect to the NPS-UD and address an anticipated shortfall in residential zoned land. The NPS-UD requires provision of at least sufficient development capacity to meet expected housing demand in the medium term and this must be zoned and infrastructure ready; thus Council must rezone the site to MDRZ.</p> <p>Notes that Variation 1 only proposes to rezone 86ha of FDA land at south-west Rangiora and north-east Rangiora in the ownership of just two developers, with a yield of approximately 1000 households, which favours these developers and is inconsistent with the NPS-UD's direction to promote a competitive land market. It is also inadequate to meet Rangiora's housing needs in both the short and medium term, given there are an estimated 13,500 additional dwellings required for the period up to 2051.</p> <p>Rezoning the site is appropriate and necessary to achieve sustainable growth of Rangiora and to meet the requirements of the National Policy Statement for Urban Development (NPS-UD), will give effect to Policy 12 of the Canterbury Regional Policy Statement (CRPS), will be consistent with the objectives and policies of Strategic Directions and Urban Form and Development Chapters of the Proposed District Plan, and consistent with, and the most appropriate, efficient, and effective means of achieving the purpose of the Resource Management Act 1991. The alternatives of retaining General Rural or Large Lot Residential zones across the site are not an efficient use of land and do not give effect to Change 1 of CRPS, or the NPS-UD. Rezone 70 Oxford</p>	Section 5.2	Reject
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					Road, Rangiora (0.81ha) from Rural Lifestyle Zone to Medium Density Residential Zone.		
V1 40.1	FS 19	R J Paterson Family Trust		Support			Reject

V1 40.3		Ben Dormer	MRZ-BFS5	Amend	<p>Amend the West Rangiora Outline Development Plan to identify all residential areas as Medium Residential Density and consequential changes to the ODP narrative and other related provisions.</p> <p>Rezone 70 Oxford Road, Rangiora (0.81ha) ('the site') from Rural Lifestyle Zone to Medium Density Residential Zone (MDRZ) to yield 15 residential lots which would contribute towards meeting Rangiora's housing needs. It will help achieve a compact, and efficient, urban form with connectivity with multiple transport modes and will contribute to a well-functioning urban environment. Adverse effects will be minimal and mitigatable.</p> <p>The site is a logical and preferred location for Rangiora's urban growth as it adjoins existing urban development to the north and east and is located within the West Rangiora Development Area and a Future Development Area (FDA). The FDAs for Rangiora need to be rezoned now give effect to the NPS-UD and address an anticipated shortfall in residential zoned land. The NPS-UD requires provision of at least sufficient development capacity to meet expected housing demand in the medium term and this must be zoned and infrastructure ready; thus Council must rezone the site to MDRZ.</p> <p>Notes that Variation 1 only proposes to rezone 86ha of FDA land at south-west Rangiora and north-east Rangiora in the ownership of just two developers, with a yield of approximately 1000 households, which favours these developers and is inconsistent with the NPS-UD's direction to promote a competitive land market. It is also inadequate to meet Rangiora's housing needs in both the short and medium term, given there are an estimated 13,500 additional dwellings required for the period up to 2051.</p> <p>Rezoning the site is appropriate and necessary to achieve sustainable growth of Rangiora and to meet the requirements of the National Policy Statement for Urban Development (NPS-UD), will give effect to Policy 12 of the Canterbury Regional Policy Statement (CRPS), will be consistent with the objectives and policies of Strategic Directions and Urban Form and Development Chapters of the Proposed District Plan, and consistent with, and the most appropriate, efficient, and effective means of achieving the purpose of the Resource Management</p>	Section 5.2	Reject
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					<p>Act 1991. The alternatives of retaining General Rural or Large Lot Residential zones across the site are not an efficient use of land and do not give effect to Change 1 of CRPS, or the NPS-UD. Amend the West Rangiora Outline Development Plan (ODP) to identify all residential areas as Medium Residential Density and consequential changes to the ODP narrative and other related provisions.</p>		
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V1 54.1		John and Coral Broughton	General	Amend	<p>Rezone 113 and 117 Townsend Road, Rangiora (8.5ha) ('the site') from Rural Lifestyle Zone to Medium Density Residential Zone. The site is adjacent to existing residential development, within the West Rangiora Development Area and Future Development Area (FDA), and will accommodate approximately 127 lots. Considers the rezoning will help achieve a compact and efficient urban form, contribute to a well-functioning urban environment, and help address an anticipated shortfall in residential zoned land.</p> <p>Notes that Variation 1 rezones 86ha of FDA land, with an anticipated yield of approximately 1000 households, and in the ownership of just two major local developers. Concerned that this favours these existing developers and is inconsistent with the direction of the National Policy Statement in Urban Development's (NPS-UD) promotion of a competitive land market, and also that the anticipated yield is inadequate to meet Rangiora's housing needs in the short and medium term.</p> <p>Opposes certification process as it is an uncertain and unproven mechanism for delivering housing; rezoning is quicker and more certain process for addressing acute housing demand and escalating prices due to a supply shortage. Rezoning is also required to meet Council's requirements of the NPS-UD of providing zoned and infrastructure ready development capacity to meet demand, and give effect to Policy 12 in the Canterbury Regional Policy Statement (CRPS). Notes this submission is supported by a submitter's submission on the Proposed District Plan. Rezone 113 and 117 Townsend Road, Rangiora (8.5ha) from Rural Lifestyle Zone to Medium Density Residential Zone.</p>	Section 5.4	Reject
V1 54.1	FS 19	FS R J Paterson Family Trust		Support			Reject

V1 54.3		John and Coral Broughton	General	Amend	<p>Rezone 113 and 117 Townsend Road, Rangiora (8.5ha) ('the site') from Rural Lifestyle Zone to Medium Density Residential Zone. The site is adjacent to existing residential development, within the West Rangiora Development Area and Future Development Area (FDA), and will accommodate approximately 127 lots. Considers the rezoning will help achieve a compact and efficient urban form, contribute to a well-functioning urban environment, and help address an anticipated shortfall in residential zoned land.</p> <p>Notes that Variation 1 rezones 86ha of FDA land, with an anticipated yield of approximately 1000 households, and in the ownership of just two major local developers. Concerned that this favours these existing developers and is inconsistent with the direction of the National Policy Statement in Urban Development's (NPS-UD) promotion of a competitive land market, and also that the anticipated yield is inadequate to meet Rangiora's housing needs in the short and medium term.</p> <p>Opposes certification process as it is an uncertain and unproven mechanism for delivering housing; rezoning is quicker and more certain process for addressing acute housing demand and escalating prices due to a supply shortage. Rezoning is also required to meet Council's requirements of the NPS-UD of providing zoned and infrastructure ready development capacity to meet demand, and give effect to Policy 12 in the Canterbury Regional Policy Statement (CRPS). Notes this submission is supported by a submitter's submission on the Proposed District Plan. Delete, or alternatively amend, the certification provisions to ensure it is a fair, equitable, transparent, appealable, efficient and fast process for delivering land for housing and does not duplicate matters that can be dealt with at subdivision stage; and address any future certification concerns.</p> <p>Amend the West Rangiora Development Area provisions to remove references to the certification process, and instead rezone 113 and 117 Townsend Road, Rangiora to Medium Density Residential Zone.</p> <p>Amend the West Rangiora Outline Development Plan (ODP) to identify all residential areas as Medium Residential Density; and to give effect to the other changes to the ODP sought in the Broughton submission on the Proposed District Plan (refer to full submission for ODP map); and subsequent</p>	Section 5.4	Reject
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					amendments to the West Rangiora ODP narrative and other provisions to be consistent with these amendments.		
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V1 54.4		John and Coral Broughton	General	Amend	<p>Rezone 113 and 117 Townsend Road, Rangiora (8.5ha) ('the site') from Rural Lifestyle Zone to Medium Density Residential Zone. The site is adjacent to existing residential development, within the West Rangiora Development Area and Future Development Area (FDA), and will accommodate approximately 127 lots. Considers the rezoning will help achieve a compact and efficient urban form, contribute to a well-functioning urban environment, and help address an anticipated shortfall in residential zoned land.</p> <p>Notes that Variation 1 rezones 86ha of FDA land, with an anticipated yield of approximately 1000 households, and in the ownership of just two major local developers. Concerned that this favours these existing developers and is inconsistent with the direction of the National Policy Statement in Urban Development's (NPS-UD) promotion of a competitive land market, and also that the anticipated yield is inadequate to meet Rangiora's housing needs in the short and medium term.</p> <p>Opposes certification process as it is an uncertain and unproven mechanism for delivering housing; rezoning is quicker and more certain process for addressing acute housing demand and escalating prices due to a supply shortage. Rezoning is also required to meet Council's requirements of the NPS-UD of providing zoned and infrastructure ready development capacity to meet demand, and give effect to Policy 12 in the Canterbury Regional Policy Statement (CRPS). Notes this submission is supported by a submitter's submission on the Proposed District Plan. Delete, or alternatively amend, the certification provisions to ensure it is a fair, equitable, transparent, appealable, efficient and fast process for delivering land for housing and does not duplicate matters that can be dealt with at subdivision stage; and address any future certification concerns.</p> <p>Amend the West Rangiora Development Area provisions to remove references to the certification process, and instead rezone 113 and 117 Townsend Road, Rangiora to Medium Density Residential Zone.</p> <p>Amend the West Rangiora Outline Development Plan (ODP) to identify all residential areas as Medium Residential Density; and to give effect to the other changes to the ODP sought in the Broughton</p>	Section 5.4	Reject
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					submission on the Proposed District Plan (refer to full submission for ODP map); and subsequent amendments to the West Rangiora ODP narrative and other provisions to be consistent with these amendments.		
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V1 55.1		Miranda Hales	General	Amend	<p>Rezone 125 Lehmans Road, Rangiora (5.57ha) ('the site') from Rural Lifestyle Zone to Medium Density Residential Zone. The site is within the West Rangiora Development Area and a Future Development Area thus is recognised for future urban growth and would create at least 84 lots. It will help achieve a compact, and efficient, urban form with connectivity with multiple transport modes, a well-functioning urban environment, and supports the growth direction for Rangiora set down in the Canterbury Regional Policy Statement and Proposed District Plan. The rezoning proposed in Variation 1 is insufficient to meet the anticipated demand for housing thus additional land needs to be rezoned urgently.</p> <p>Opposes the certification process given its uncertainty, highly discretionary nature, lack of applicant objection or appeal rights, and potential lack of transparent documentation of its decision-making process. Considers Council must instead rezone land to address the shortfall in housing supply quickly and with certainty. Council needs to meet its requirements under the National Policy Statement on Urban Development (NPS-UD) of providing sufficient development capacity that is zoned and infrastructure ready to meet expected housing demand for the medium term; certification will not achieve this. Concerned that certification lapses if a Section 224(c) (Resource Management Act 1991) subdivision completion certification is not granted within three years of certification. Rezoning would only occur when the entire development area is rezoned, which may not be within the life of the Proposed District Plan. Concerned that the ability to meet the subdivision 'completion' requirement by completing a smaller subdivision is not suitable as the subdivision would be hardly underway, yet services would be allocated to potentially a significant area indefinitely, which may prejudice other subdividers if there are servicing capacity constraints. Considers there is a lack of clarity about how services will be allocated between different certification applicants (i.e. first come, first served, or priority for favoured areas). Considers Variation 1's s32AA assessment is inadequate for the above reasons.</p> <p>Notes that except where this submission provides an update to the relief sought, this submission should be read alongside and subject to the submitter's</p>	Section 5.3	Reject
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					submission on the Proposed District Plan.Rezone 126 Lehmans Rd, Rangiora (Pt RS 48562) from Rural Lifestyle Zone to Medium Density Residential Zone.		
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V1 55.3		Miranda Hales	General	Amend	<p>Rezone 125 Lehmans Road, Rangiora (5.57ha) ('the site') from Rural Lifestyle Zone to Medium Density Residential Zone. The site is within the West Rangiora Development Area and a Future Development Area thus is recognised for future urban growth and would create at least 84 lots. It will help achieve a compact, and efficient, urban form with connectivity with multiple transport modes, a well-functioning urban environment, and supports the growth direction for Rangiora set down in the Canterbury Regional Policy Statement and Proposed District Plan. The rezoning proposed in Variation 1 is insufficient to meet the anticipated demand for housing thus additional land needs to be rezoned urgently.</p> <p>Opposes the certification process given its uncertainty, highly discretionary nature, lack of applicant objection or appeal rights, and potential lack of transparent documentation of its decision-making process. Considers Council must instead rezone land to address the shortfall in housing supply quickly and with certainty. Council needs to meet its requirements under the National Policy Statement on Urban Development (NPS-UD) of providing sufficient development capacity that is zoned and infrastructure ready to meet expected housing demand for the medium term; certification will not achieve this. Concerned that certification lapses if a Section 224(c) (Resource Management Act 1991) subdivision completion certification is not granted within three years of certification. Rezoning would only occur when the entire development area is rezoned, which may not be within the life of the Proposed District Plan. Concerned that the ability to meet the subdivision 'completion' requirement by completing a smaller subdivision is not suitable as the subdivision would be hardly underway, yet services would be allocated to potentially a significant area indefinitely, which may prejudice other subdividers if there are servicing capacity constraints. Considers there is a lack of clarity about how services will be allocated between different certification applicants (i.e. first come, first served, or priority for favoured areas). Considers Variation 1's s32AA assessment is inadequate for the above reasons.</p> <p>Notes that except where this submission provides an update to the relief sought, this submission should be read alongside and subject to the submitter's</p>	Section 5.3	Reject
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				<p>submission on the Proposed District Plan. Delete, or alternatively amend, the certification provisions to ensure it is a fair, equitable, transparent, appealable, efficient and fast process for delivering land for housing and does not duplicate matters that can be dealt with at subdivision stage; and address any future certification concerns.</p> <p>Amend the West Rangiora Development Area provisions to delete all references to the certification process, and instead rezone 126 Lehmans Road, Rangiora to Medium Density Residential Zone.</p> <p>Amend the West Rangiora Outline Development Plan by identifying all residential areas as Medium Density Residential Zone.</p>		
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V1 55.4		Miranda Hales	General	Amend	<p>Rezone 125 Lehmans Road, Rangiora (5.57ha) ('the site') from Rural Lifestyle Zone to Medium Density Residential Zone. The site is within the West Rangiora Development Area and a Future Development Area thus is recognised for future urban growth and would create at least 84 lots. It will help achieve a compact, and efficient, urban form with connectivity with multiple transport modes, a well-functioning urban environment, and supports the growth direction for Rangiora set down in the Canterbury Regional Policy Statement and Proposed District Plan. The rezoning proposed in Variation 1 is insufficient to meet the anticipated demand for housing thus additional land needs to be rezoned urgently.</p> <p>Opposes the certification process given its uncertainty, highly discretionary nature, lack of applicant objection or appeal rights, and potential lack of transparent documentation of its decision-making process. Considers Council must instead rezone land to address the shortfall in housing supply quickly and with certainty. Council needs to meet its requirements under the National Policy Statement on Urban Development (NPS-UD) of providing sufficient development capacity that is zoned and infrastructure ready to meet expected housing demand for the medium term; certification will not achieve this. Concerned that certification lapses if a Section 224(c) (Resource Management Act 1991) subdivision completion certification is not granted within three years of certification. Rezoning would only occur when the entire development area is rezoned, which may not be within the life of the Proposed District Plan. Concerned that the ability to meet the subdivision 'completion' requirement by completing a smaller subdivision is not suitable as the subdivision would be hardly underway, yet services would be allocated to potentially a significant area indefinitely, which may prejudice other subdividers if there are servicing capacity constraints. Considers there is a lack of clarity about how services will be allocated between different certification applicants (i.e. first come, first served, or priority for favoured areas). Considers Variation 1's s32AA assessment is inadequate for the above reasons.</p> <p>Notes that except where this submission provides an update to the relief sought, this submission should be read alongside and subject to the submitter's</p>	Section 5.3	Accept
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				<p>submission on the Proposed District Plan. Delete, or alternatively amend the certification provisions to ensure it is a fair, equitable, transparent, appealable, efficient and fast process for delivering land for housing and does not duplicate matters that can be dealt with at subdivision stage; and to address any other concerns with certification which arise on further investigation.</p> <p>Amend the West Rangiora Development Area provisions to remove all references to the certification process, and instead rezone 126 Lehmans Road, Rangiora to Medium Density Residential Zone.</p> <p>Amend the West Rangiora Outline Development Plan by identifying all residential areas as Medium Density Residential Zone.</p>		
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V1 57.1		Miranda Hales	General	Amend	<p>Rezone [212 Johns Rd and 63 Oxford Rd, Rangiora] ('the site') from Rural Lifestyle Zone to Medium Density Residential Zone. The site is within the West Rangiora Development Area and a Future Development Area so is recognised to provide for urban growth and would create at least 297 lots. More land needs to be rezoned to help address an anticipated shortfall in residential zoned land, and give effect to the National Policy Statement on Urban Development 2020 (NPS-UD) requirement of providing zoned and infrastructure ready development capacity to meet expected demand in the short and medium term. The rezoning will help achieve a compact, and efficient, urban form with connectivity with multiple transport modes and will contribute to a well-functioning urban environment, and supports the growth direction for Rangiora set down in the Canterbury Regional Policy Statement and Proposed District Plan. Notes that Variation 1 rezones 86ha of FDA land, with an anticipated yield of approximately 1000 households, and in the ownership of just two major local developers. Concerned that this favours these existing developers and is inconsistent with the direction of the National Policy Statement in Urban Development's (NPS-UD) promotion of a competitive land market, and also that the anticipated yield is inadequate to meet Rangiora's housing needs in the short and medium term. Considers any adverse effects arising from the proposed rezoning will be minimal, if any, and mitigatable.</p> <p>Opposes the certification process as it is an uncertain and unproven method for delivering land for housing when there is an urgent need to address the supply shortfall. Considers Council must instead rezone land to address the shortfall in housing supply quickly and with certainty.</p> <p>Notes this submission should be read alongside the submitter's submission on the Proposed District Plan, except where this submission provides an update of the relief sought. Rezone [212 Johns Rd and 63 Oxford Rd, Rangiora] (19.8ha - Pt RS 903, Lot 1 DP 61800, Pt RS 48562) from Rural Lifestyle Zone to Medium Density Residential Zone.</p>	Section 5.3	Accept
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V1 57.3		Dalkeith Holdings Ltd	General	Amend	<p>Rezone [212 Johns Rd and 63 Oxford Rd, Rangiora] ('the site') from Rural Lifestyle Zone to Medium Density Residential Zone. The site is within the West Rangiora Development Area and a Future Development Area so is recognised to provide for urban growth and would create at least 297 lots. More land needs to be rezoned to help address an anticipated shortfall in residential zoned land, and give effect to the National Policy Statement on Urban Development 2020 (NPS-UD) requirement of providing zoned and infrastructure ready development capacity to meet expected demand in the short and medium term. The rezoning will help achieve a compact, and efficient, urban form with connectivity with multiple transport modes and will contribute to a well-functioning urban environment, and supports the growth direction for Rangiora set down in the Canterbury Regional Policy Statement and Proposed District Plan. Notes that Variation 1 rezones 86ha of FDA land, with an anticipated yield of approximately 1000 households, and in the ownership of just two major local developers. Concerned that this favours these existing developers and is inconsistent with the direction of the National Policy Statement in Urban Development's (NPS-UD) promotion of a competitive land market, and also that the anticipated yield is inadequate to meet Rangiora's housing needs in the short and medium term. Considers any adverse effects arising from the proposed rezoning will be minimal, if any, and mitigatable.</p> <p>Opposes the certification process as it is an uncertain and unproven method for delivering land for housing when there is an urgent need to address the supply shortfall. Considers Council must instead rezone land to address the shortfall in housing supply quickly and with certainty.</p> <p>Notes this submission should be read alongside the submitter's submission on the Proposed District Plan, except where this submission provides an update of the relief sought. Amend the West Rangiora Outline Development Plan (ODP) to identify all residential areas as Medium Density Residential; and consequential amendments to the West Rangiora ODP narrative and other provisions.</p> <p>Delete, or alternatively amend, the certification provisions so that it is a fair, equitable, transparent, appealable, efficient and fast process for delivering</p>	Section 5.3	Accept
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					<p>land for housing and does not duplicate matters that can be dealt with at subdivision stage; and addresses any other future concerns with certification.</p> <p>Amend the West Rangiora Development Area provisions to delete all references to the certification process, and instead rezone 212 Johns Rd and 63 Oxford Rd, Rangiora to Medium Density Residential Zone.</p>		
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V1 58.1		199 Johns Road Ltd, Carolina Homes Ltd, Carolina Rental Homes Ltd, Allan Downs Ltd	General	<p>Originally submitted on the Proposed District Plan (#266) seeking to rezone the site at 163, 191, 199, & 203 Johns Road, Rangiora from proposed Rural Lifestyle Zone (RLZ) to proposed General Residential Zone (GRZ) and Medium Density Residential Zone (MRZ).The previous submission is still relevant in conjunction with this submission in so far as it demonstrates the site is suitable for residential re-zoning. It is considered that Council accepts this position and now proposed re-zoning for the site as Medium Density Residential Zone.</p> <p>Support the re-zoning of the site in Variation 1: Housing Intensification through the Intensification Streamlined Planning Process and notes the rezoning of the site has “legal effect”.</p> <p>Generally support Variation 1 to the Proposed Waimakariri District Plan, the technical reports prepared which contribute to the overall findings outlined in Section 32 Report, and the overall summary which concludes “there is no impediment to rezoning North East and South West Rangiora” as Medium Density Residential Zone (MRZ) to enable the Medium Density Residential Standards. Request small amendments to proposed rules as outlined in this submission.Supports to the Council proposal to now re-zone the site at 163, 191, 199, & 203 Johns Road, Rangiora from General Residential Zone (GRZ) and Medium Residential Density Zone (MRZ) to Medium Density Residential Zone (MRZ –Variation 1) as part of the Intensification Streamlined Planning Process (ISPP).</p> <p>Where the Submitters are neutral or oppose specific provisions, these are provided.</p> <p>Specific details and reference to provisions within the Proposed District Plan Variation 1 are provided.</p>	Section 5.4	Accept in part
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V1 58.12		199 Johns Road Ltd, Carolina Homes Ltd, Carolina Rental Homes Ltd, Allan Downs Ltd			<p>Decision_requested "Amend DEV-SWR-APP1 Southwest Rangiora ODP. Amend DEV-SWR-APP1:</p> <p>""Land Use Plan The Outline Development Plan for the South West Rangiora located within Fixed Outline Development Plan Features for the South West Rangiora Development Area: - Location of a concentration of medium density residential activity (meaning a minimum ratio of 70% medium density residential zone density and a maximum 30% general residential zone density) immediately adjoining the new north/south road. - Location of the local/neighbourhood centre at the juncture of Oxford Road and the north/south road - Green link with cycleway adjoining the north/south road - Location of stormwater corridor at eastern edge of the West Rangiora Development Area - Separated shared pedestrian/cycleway at Johns Road and southern part of new north/south road - Cycleways at Oxford Road, the new north/south road, Johns Road, Lehmans Road and southern flow path - Integrated road connections with 77A Acacia Avenue, Beech Drive, Walnut Way and Sequoia Way. - Flow paths and adjoining green links and cycleways, including any required water body setbacks.""</p> <p>The Submitter's seek to have the South West Rangiora Outline Development Area included as proposed in Appendix 1 of DEV-SWR-APP1 South West Rangiora Outline Development Plan. The Submitter's request that the West Rangiora Outline Development Plan in DEV-WR-APP1 be updated accordingly to be consistent with DEV-SWR- APP1."</p>	Section 5.4	Accept in part (except for 20 and 24 Angus Place)
V1 58.12	FS 129	FS Eliot Sinclair and Partners Ltd		Support		Accept	
V1 58.12	FS 3	FS Waka Kotahi NZ Transport Agency		Oppose		Reject	

V1 58.2		199 Johns Road Ltd, Carolina Homes Ltd, Carolina Rental Homes Ltd, Allan Downs Ltd	General	Support	Supports the re-zoning of the site at 163, 191, 199, & 203 Johns Road, Rangiora as Medium Density Residential Zone to implement the Medium Density Residential Standards. Specifically, supports the change from 'South West Rangiora Development Area' to Medium Density Residential Zone.Supports rezoning from 'South West Rangiora Development Area' to Medium Density Residential Zone.	Section 5.4	Accept in part (except for 20 and 24 Angus Place)
V1 58.3		199 Johns Road Ltd, Carolina Homes Ltd, Carolina Rental Homes Ltd, Allan Downs Ltd	General	Support	Agrees that the site at 163, 191, 199, & 203 Johns Road, Rangiora should not be subject to any qualifying matters, specifically, those specified in the Amendment Act and those justified via assessment in the Amendment Act (s77G to s77R). Agrees with the assessment of District-Wide Matters as listed on Page 25 of the Variation 1 Section 32 Report and supports the inclusion of District-Wide Matters within the Proposed Waimakariri District Plan.Not specified	Section 5.4	Accept in part (except for 20 and 24 Angus Place)

V1 59.3		Eliot Sinclair	General	Support	<p>Agrees that the site at 163, 191, 199, & 203 Johns Road, Rangiora should not be subject to any qualifying matters, specifically, those specified in the Amendment Act and those justified via assessment in the Amendment Act (s77G to s77R).</p> <p>Agrees with the assessment of District-Wide Matters as listed on Page 25 of the Variation 1 Section 32 Report and supports the inclusion of District-Wide Matters within the Proposed Waimakariri District Plan. Not specified</p>	Section 5.4	Accept in part (except for 20 and 24 Angus Place)
V1 79.10		Bellgrove Rangiora Ltd			<p>The North-East Rangiora Development Area Chapter needs to be updated to reflect the proposed Medium Density Residential Zone of Bellgrove North and that the remainder of the Outline Development Plan area will assume Medium Density Residential Zone following certification. Amend the North-East Rangiora Development Area Chapter to reflect:</p> <p>(1) Land within the North East Rangiora Outline Development Plan will be rezoned Medium Density Residential Zone (refer Attachment 5)(see full submission), except for land immediately surrounding the homestead (qualifying matter);</p> <p>(2) Amend the North East Rangiora Outline Development Plan layout to reflect the Stage 1 Consent layout;</p> <p>(3) Remove reference to the ratio of medium residential density to general residential density, given this no longer aligns with the changes sought by Variation 1;</p> <p>(4) Remove reference to a 200m2 minimum lot size for the Medium Density Residential Zone given this contradicts proposed Subdivision Standard S-1;</p> <p>(5) Amend the Overall Development Plan, Land Use</p>	Section 7.2	Accept

					<p>Plan, Movement Network Plan, Open Space and Stormwater Reserve Plan and Water and Wastewater Network Plan as per Attachment 5 (see full submission); and</p> <p>(6) Remove reference to Option A for this Outline Development Plan area given it is no longer required and should be deleted to reduce confusion and improve readability of the plan.</p>		
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V1 29.1		B and A Stokes	MRZ-BFS5	Amend	<p>Requests a more appropriate provision for medium density housing for Woodend/Ravenswood/Waikuku that only applies to parts of these areas located within walking distance, or 800m, from the town centre, and the balance of residential areas, including the approximately 144ha area of Gressons Road, Waikuku shown on page 1 of Attachment B (refer to full submission) ('the site'), being rezoned to General Residential Zone.</p> <p>Requests Council identify parts of Woodend/Ravenswood/Waikuku that should remain General Residential Zone as a qualifying matter as a blanket approach to medium density housing is unsuitable in these generally low-density suburban environments with high standards of residential amenity and urban design. Medium density housing should be clustered in pedestrian proximity to the town centre and public transport hubs. However, if this is not possible, the submitter requests the site be considered within the scope of Variation 1 as if it was already General Residential Zone. The submitter's submission on the Proposed District Plan requested the site be rezoned General Residential Zone, and further supports this submission on Variation 1.</p> <p>Considers Variation 1 will not provide for Objective 1 and 2, and Policy 1, 3 and 4 of the Medium Density Residential Standards in Schedule 3A of the Resource Management Act 1991. Variation 1 is also inconsistent with the overall provisions of the Resource Management Act, and beyond the needs of the National Policy Statement on Urban Development.</p> <p>Refer to full submission for supporting documents including a background on the site's proposed development (Attachment B), which concludes the site's development would make a valuable contribution to the District's medium density residential growth, and is within an area already identified for growth, will consolidate development around Ravenswood's Key Activity Centre, and has no natural hazards that preclude the use of the land. Attachment C provides an Infrastructure Options Report which recommends the best options for water, wastewater, stormwater, power, and telecommunications. A proposed Zoning Map and Outline Development Plan is provided in Attachment D. Attachment E provides a Market Report which</p>	Section 10.1	Reject
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					<p>examines the site's development prospects. Attachment F provides a Landscape/Urban Design Assessment which examines the site's landscape character, its spatial character, and proposes an Outline Development Plan which integrates these elements. Requests that the submitter's submission on the Proposed District Plan be allowed in full and the site (the approximately 144ha area of Gressons Road, Waikuku shown on page 1 of Attachment B - refer to full submission), be rezoned General Residential Zone, along with adjacent residential areas of Ravenswood/Woodend/Waikuku, if Variation 1 is appropriately modified to enable that outcome.</p> <p>Alternatively, rezone the area of the site identified for General Residential Zone to Medium Density Residential Zone if Variation 1 proceeds in approximately its notified form.</p>		
V1 29.1	FS 1	FS Ravenswood Development Ltd		Support			Reject
V1 29.1	FS 3	Waka Kotahi NZ Transport Agency		Oppose			Accept

V1 29.2		B and A Stokes	MRZ-BFS5	Amend	<p>Requests a more appropriate provision for medium density housing for Woodend/Ravenswood/Waikuku that only applies to parts of these areas located within walking distance, or 800m, from the town centre, and the balance of residential areas, including the approximately 144ha area of Gressons Road, Waikuku shown on page 1 of Attachment B (refer to full submission) ('the site'), being rezoned to General Residential Zone.</p> <p>Requests Council identify parts of Woodend/Ravenswood/Waikuku that should remain General Residential Zone as a qualifying matter as a blanket approach to medium density housing is unsuitable in these generally low-density suburban environments with high standards of residential amenity and urban design. Medium density housing should be clustered in pedestrian proximity to the town centre and public transport hubs. However, if this is not possible, the submitter requests the site be considered within the scope of Variation 1 as if it was already General Residential Zone. The submitter's submission on the Proposed District Plan requested the site be rezoned General Residential Zone, and further supports this submission on Variation 1.</p> <p>Considers Variation 1 will not provide for Objective 1 and 2, and Policy 1, 3 and 4 of the Medium Density Residential Standards in Schedule 3A of the Resource Management Act 1991. Variation 1 is also inconsistent with the overall provisions of the Resource Management Act, and beyond the needs of the National Policy Statement on Urban Development.</p> <p>Refer to full submission for supporting documents including a background on the site's proposed development (Attachment B), which concludes the site's development would make a valuable contribution to the District's medium density residential growth, and is within an area already identified for growth, will consolidate development around Ravenswood's Key Activity Centre, and has no natural hazards that preclude the use of the land. Attachment C provides an Infrastructure Options Report which recommends the best options for water, wastewater, stormwater, power, and telecommunications. A proposed Zoning Map and Outline Development Plan is provided in Attachment D. Attachment E provides a Market Report which examines the site's development prospects.</p>	Section 10.1	Reject
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				<p>Attachment F provides a Landscape/Urban Design Assessment which examines the site's landscape character, its spatial character, and proposes an Outline Development Plan which integrates these elements. Requests that the submitter's submission on the Proposed District Plan be allowed in full and the site (the approximately 144ha area of Gressons Road, Waikuku shown on page 1 of Attachment B - refer to full submission), be rezoned General Residential Zone, along with adjacent residential areas of Ravenswood/Woodend/Waikuku, if Variation 1 is appropriately modified to enable that outcome.</p> <p>Alternatively, rezone the area of the site identified for General Residential Zone to Medium Density Residential Zone if Variation 1 proceeds in approximately its notified form.</p>		
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V1 29.3		B and A Stokes	MRZ-BFS5	Amend	<p>Requests a more appropriate provision for medium density housing for Woodend/Ravenswood/Waikuku that only applies to parts of these areas located within walking distance, or 800m, from the town centre, and the balance of residential areas, including the approximately 144ha area of Gressons Road, Waikuku shown on page 1 of Attachment B (refer to full submission) ('the site'), being rezoned to General Residential Zone.</p> <p>Requests Council identify parts of Woodend/Ravenswood/Waikuku that should remain General Residential Zone as a qualifying matter as a blanket approach to medium density housing is unsuitable in these generally low-density suburban environments with high standards of residential amenity and urban design. Medium density housing should be clustered in pedestrian proximity to the town centre and public transport hubs. However, if this is not possible, the submitter requests the site be considered within the scope of Variation 1 as if it was already General Residential Zone. The submitter's submission on the Proposed District Plan requested the site be rezoned General Residential Zone, and further supports this submission on Variation 1.</p> <p>Considers Variation 1 will not provide for Objective 1 and 2, and Policy 1, 3 and 4 of the Medium Density Residential Standards in Schedule 3A of the Resource Management Act 1991. Variation 1 is also inconsistent with the overall provisions of the Resource Management Act, and beyond the needs of the National Policy Statement on Urban Development.</p> <p>Refer to full submission for supporting documents including a background on the site's proposed development (Attachment B), which concludes the site's development would make a valuable contribution to the District's medium density residential growth, and is within an area already identified for growth, will consolidate development around Ravenswood's Key Activity Centre, and has no natural hazards that preclude the use of the land. Attachment C provides an Infrastructure Options Report which recommends the best options for water, wastewater, stormwater, power, and telecommunications. A proposed Zoning Map and Outline Development Plan is provided in Attachment D. Attachment E provides a Market Report which examines the site's development prospects.</p>	Section 10.1	Reject
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				<p>Attachment F provides a Landscape/Urban Design Assessment which examines the site's landscape character, its spatial character, and proposes an Outline Development Plan which integrates these elements. Requests that the submitter's submission on the Proposed District Plan be allowed in full and the site (the approximately 144ha area of Gressons Road, Waikuku shown on page 1 of Attachment B - refer to full submission), be rezoned General Residential Zone, along with adjacent residential areas of Ravenswood/Woodend/Waikuku, if Variation 1 is appropriately modified to enable that outcome.</p> <p>Alternatively, rezone the area of the site identified for General Residential Zone to Medium Density Residential Zone if Variation 1 proceeds in approximately its notified form.</p>		
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V1 48.1		Woodwater Ltd	Airport	Amend	<p>This submission relates to the following land:</p> <p>21 Judsons Road, Woodend, Waimakariri District (Lot 2 Deposited Plan 2567 and Part Rural Section 689)</p> <p>320 Woodend Beach Road, Woodend, Waimakariri District (Lot 2 Deposited Plan 75359)</p> <p>1 Judsons Road, Woodend, Waimakariri District (Part Lot 1 Deposited Plan 2567)</p> <p>328 Woodend Beach Road, Woodend, Waimakariri District (Part Lot 1 Deposited Plan 2567)</p> <p>36 Judsons Road, Woodend, Waimakariri District (Part Rural Land 689 and Part Rural Land 689)</p> <p>40 Judsons Road, Woodend, Waimakariri District (Part Rural Section 689)</p> <p>46 Judsons Road, Woodend, Waimakariri District (Part Rural Section 689)</p> <p>50 Judsons Road, Woodend, Waimakariri District (Part Rural Section 689)</p> <p>52 Judsons Road, Woodend, Waimakariri District (Part Rural Section 689, Part Rural Section 689, Part Rural Section 367A and Part Rural Section 689)</p> <p>60 Judsons Road, Woodend, Waimakariri District (Parcel ID: 3401266)</p> <p>62 Judsons Road, Woodend, Waimakariri District (Part Rural Section 689)</p> <p>Copper Beech Road, Woodend, Waimakariri District (Lot 1, 101 Deposited Plan 503969)</p> <p>43 Petries Road, Woodend, Waimakariri District (Part Rural Section 367A and Part Rural Section 689)</p> <p>In the Proposed Plan the above land is zoned Rural Lifestyle Zone (RLZ). The surrounding zoning includes General Residential to the north, and Special Purpose Kainga Nohoanga Zone (SPZ-KN) to the west. To the east and south, land has been rezoned as either Open Space Zone (OSZ) or Large Lot Residential Zoning (LLRZ). The net outcome is that the above land will essentially be an island of rural land surrounded by urban land which is undesirable as it is likely to result in significant constraints on any rural activities that can be undertaken and may render it incapable of reasonable use. Seeks that the subject land be rezoned Medium Density Residential Zone.</p>	Section 9.1	Reject
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V1 48.2		Woodwater Ltd	Woodend	Amend	<p>This submission relates to the following land:</p> <p>21 Judsons Road, Woodend, Waimakariri District (Lot 2 Deposited Plan 2567 and Part Rural Section 689)</p> <p>320 Woodend Beach Road, Woodend, Waimakariri District (Lot 2 Deposited Plan 75359)</p> <p>1 Judsons Road, Woodend, Waimakariri District (Part Lot 1 Deposited Plan 2567)</p> <p>328 Woodend Beach Road, Woodend, Waimakariri District (Part Lot 1 Deposited Plan 2567)</p> <p>36 Judsons Road, Woodend, Waimakariri District (Part Rural Land 689 and Part Rural Land 689)</p> <p>40 Judsons Road, Woodend, Waimakariri District (Part Rural Section 689)</p> <p>46 Judsons Road, Woodend, Waimakariri District (Part Rural Section 689)</p> <p>50 Judsons Road, Woodend, Waimakariri District (Part Rural Section 689)</p> <p>52 Judsons Road, Woodend, Waimakariri District (Part Rural Section 689, Part Rural Section 689, Part Rural Section 367A and Part Rural Section 689)</p> <p>60 Judsons Road, Woodend, Waimakariri District (ParcelID: 3401266)</p> <p>62 Judsons Road, Woodend, Waimakariri District (Part Rural Section 689)</p> <p>Copper Beech Road, Woodend, Waimakariri District (Lot 1, 101 Deposited Plan 503969)</p> <p>43 Petries Road, Woodend, Waimakariri District (Part Rural Section 367A and Part Rural Section 689)</p> <p>In the Proposed Plan the above land is zoned Rural Lifestyle Zone (RLZ). The surrounding zoning includes General Residential to the north, and Special Purpose Kainga Nohoanga Zone (SPZ-KN) to the west. To the east and south, land has been rezoned as either Open Space Zone (OSZ) or Large Lot Residential Zoning (LLRZ). The net outcome is that this land will essentially be an island of rural land surrounded by urban land which is undesirable as it is likely to result in significant constraints on any rural activities that can be undertaken and may render it incapable of reasonable use. Seeks that the subject land be rezoned Medium Density Residential Zone.</p>	Section 9.1	Reject
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V1 13.1		Mike Greer Homes Ltd	SD-O2	Amend	<p>Amend to add in the proposed South Kaiapoi Development Area as an additional New Development Area. The site is located in an area in southern Kaiapoi to the east of Main North Road, west of railway line, and south of the Kaikanui Stream containing the following properties:</p> <ul style="list-style-type: none"> - Pt RS 37428 (CB701/7) limited to the land to the west of the Main Trunk Railway Line; - RS 39673; and - Lot 1 DP 19366. <p>The 14ha site is referred to as the South Kaiapoi Development Area. Refer to full submission for Attachment A - location plan, Attachment B - draft chapter provisions, Outline Development Plan and a planning assessment. This site is the subject of submission #332 lodged by Mike Greer Homes Ltd on the Proposed District Plan.</p> <p>The land area generally satisfies relevant national, regional and district level policy. While the site is outside Kaiapoi's urban limits, it meets the relevant criteria for the residential growth of Kaiapoi as it adjoins the south-eastern boundary. It is a logical and efficient extension of the residential area of southern Kaiapoi, maintaining its compact nature. The proposed South Kaiapoi Outline Development Plan (refer to Attachment B) provides for integration of the development with Kaiapoi with transport links and reserves. The proposed Medium Density Residential Zone development will yield approximately 200 lots, resulting in improved housing choice for Kaiapoi.</p> <p>The proposed development will require upgrades to services and Main North Road access, and mitigation for localised flooding. There are opportunities for open space and it will integrate with Kaiapoi via transport links and reserves. The proposed development will significantly alter the site's rural character however some existing trees could be incorporated into reserves which would retain a connection to the original site's character.</p> <p>Adjoining land uses are currently residential to the north, farming to the east, and industrial to the south; however these will not cause adverse effects on residents of the site. The site is within the 50dBA and 55dBA Christchurch International Airport noise contour, however this contour covers a large proportion of Kaiapoi thus would not create</p>	Section 11.2	Reject
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				<p>additional potential for reverse sensitivity. While the site's versatile soils would not be utilised for rural production, they could still be utilised by the development for reserves and gardens.</p> <p>The planning assessment concludes that the proposed rezoning of the site is generally consistent with relevant high-level policy of the Proposed District Plan. Demand for housing has grown significantly and it is necessary to develop additional blocks of land to enable housing choice and achieves Policy 1, 2, and 8 of the National Policy Statement on Urban Development. The proposal partially aligns with the Draft National Policy Statement for Highly Productive Land as the Waimakariri 2048 District Development Strategy identifies the sites for urban growth. In terms of consistency with the provisions of Chapter 5 and Chapter 6 of the Canterbury Regional Policy Statement, while there is sufficient infrastructure capacity, and it will implement the requirements of consolidation and integration, it is inconsistent with the requirements for future residential development areas to be identified on Map A. Add a new Residential Development Area (SK – South Kaiapoi Development Area) for South Kaiapoi over the following land:</p> <ul style="list-style-type: none"> - Pt RS 37428 (CB701/7) limited to the land to the west of the Main Trunk Railway Line - RS 39673 - Lot 1 DP 19366 <p>Refer to Plan A in full submission for map of area above. Refer to Attachment B for Development Area document, Outline Development Plan, and Planning Assessment.</p> <p>Refer to submission #332 lodged on the Proposed District Plan which contains this rezone request and supporting documentation.</p>		
V1 13.1	FS 15	FS Christchurch International Airport Ltd		Oppose		Accept

V1 26.2		Doncaster Development Ltd	SD-O2	<p>Requests a more appropriate provision for medium density housing for Rangiora that only applies to parts of the Rangiora located within walking distance, or 800m, from the town centre, and the balance of residential areas, including 260-282 Lehmans Rd and 32 Parrott Road, Rangiora ('the site'), being General Residential Zone.</p> <p>Requests Council identify parts of Rangiora that should remain General Residential Zone as a qualifying matter as a blanket approach to medium density housing is unsuitable in Rangiora's generally low density suburban environment with high standards of residential amenity and urban design. Medium density housing should be clustered in pedestrian proximity to the town centre and public transport hubs. However, if this is not possible, then its requested the site be considered within the scope of Variation 1 as if it was already General Residential Zone, not Large Lot Residential Zone.</p> <p>The submitter's submission on the Proposed District Plan requested the site be rezoned General Residential Zone, and further supports this submission on Variation 1.</p> <p>Considers Variation 1 will not provide for Objective 1 and 2, and Policy 1, 3 and 4 of the Medium Density Residential Standards in Schedule 3A of the Resource Management At 1991. Variation 1 is also inconsistent with the overall provisions of the Resource Management Act, and beyond the needs of the National Policy Statement on Urban Development.</p> <p>An Outline Development Plan and Zoning Map is provided in Attachment B (refer to full submission). A Infrastructure/ Servicing Report is provided in Attachment C (refer to full submission) which outlines proposed earthworks and infrastructure required for the site's development. A Infrastructure Options Report is provided in Attachment D (refer to full submission) and concludes that flood hazard and utility servicing would not be impediments to development of the site to any reasonable density of residential development. Allow in full the submitter's submission on the Proposed District Plan and include 260-282 Lehmans Rd and 32 Parrott Road, Rangiora in the General Residential Zone, along with adjacent areas of Rangiora, if Variation 1 is appropriately modified to enable that outcome.</p>	Section 6.1	Reject
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					Alternatively, rezone 260-282 Lehmans Rd and 32 Parrott Road, Rangiora to Medium Density Residential Zone if Variation 1 proceeds in approximately its notified form.		
V1 26.2	FS 23	FS Kainga Ora		Oppose			Accept
V1 26.2	FS 2	FS Transpower New Zealand Ltd		Neutral			Accept
V1 43.1		Momentum Land Ltd	General	Amend	Oppose the Rural Lifestyle zoning of Lot 2 DP 83191, Lot 2 DP 4532, Lot 1 DP 5010 and Lot 5 DP 313322. Rezone Lot 2 DP 83191, Lot 2 DP 4532, Lot 1 DP 5010 and Lot 5 DP 313322 to Medium Density Residential.	Section 11.1	Reject
V1 43.1	FS 15	FS Christchurch International Airport Ltd		Oppose			Accept

V1 43.2		Momentum Land Ltd	General	Amend	Oppose the Rural Lifestyle zoning of Lot 2 DP 83191, Lot 2 DP 4532, Lot 1 DP 5010 and Lot 5 DP 313322.Rezone Lot 2 DP 83191, Lot 2 DP 4532, Lot 1 DP 5010 and Lot 5 DP 313322 to Medium Density Residential.	Section 11.1	Reject
V1 43.3		Momentum Land Ltd			Oppose the notified Kaiapoi ODP DEV-K-APP1, as it does not reflect submitter's development intentions for development of the site.Amend the notified Kaiapoi Outline Development Plan (ODP) to reflect the ODP prepared by submitter and contained in Appendix 3 (see full submission).	Section 11.1	Reject

Appendix C. Report Author's Qualifications and Experience

I hold the following qualifications:

- Master of Planning (MPlan) and Bachelor of Physical Geography (BSc) from the University of Otago.

I am an intermediate member of the New Zealand Planning Institute. I am a certified hearings commissioner. I have 17 years' experience in working as a planner for local, central government, private consultancy, and a range of non-government organisations.

My work experience includes:

- Statutory, RMA, and recreation planning for the Department of Conservation.
- Consent planning for the Waitaki District Council.
- Extensive affected party, policy planning, Environment Court case management and litigation, central government liaison, and freshwater science experience with regional Fish and Game Councils and the New Zealand Fish and Game Council.
- Principal advisor (water) for Federated Farmers of New Zealand.
- Private consultancy, primarily on conservation and recreation planning issues to a range of non-government organisation and trust clients.
- Private aquaculture and geospatial businesses.

I have worked on planning matters across all New Zealand.

I have been employed by the Waimakariri District Council between August 2022 and December 2023 as a senior planner, and since January 2024 as a principal planner.

Conflict of interest statement

In my role at Federated Farmers of New Zealand, I was the primary author of its submission on the PDP. I understand that this is a potential conflict of interest that requires declaration. Whilst I have no direct interest or benefit or gain from the outcome of the submission, not being from a farming background and also being a new resident to the district (and region) since employment by Council, I have undertaken to:

- a) Not be the reporting officer on the rural chapter
- b) Ensuring that any other work that handles the Federated Farmers submission is checked and reviewed.
- c) Not participating in consultation and engagement with Federated Farmers, except with another staff member present.

I notified my employer, the Waimakariri District Council, of this prior to employment

Qualifications in respect of geospatial modelling

I have 15 years of experience in geospatial modelling and programming, particularly open source techniques and spatial SQL, and 25 years of experience in associated computer programming.

Appendix D. Legal Advice on Scope of Variation

30 May 2023

To

Peter Wilson
Waimakariri District Council
215 High Street
Rangiora 7400

Copy to

Matthew Bacon

From

Cedric Carranceja
Jenna Silcock

By Email

Dear Peter

Proposed Waimakariri District Plan and Variation 1 – Advice on scope

1. Waimakariri District Council (**Council**) has appointed hearings panels to hear submissions and further submissions, and make recommendations to the Council on:
 - (a) The Proposed Waimakariri District Plan (**PDP**), to be heard by the PDP Hearings Panel;
 - (b) Variation 1 (Housing Intensification) to the PDP (**Variation 1**), to be heard by the Independent Hearings Panel (**IHP**); and
 - (c) Variation 2 (Financial Contributions) to the PDP (**Variation 2**), to be heard by the PDP Hearings Panel.
2. The PDP and Variation 2 are progressing through the standard plan review/variation process pursuant to Schedule 1 of the Resource Management Act 1991 (**RMA**).
3. Variation 1 is an Intensification Planning Instrument (**IPi**) that is progressing through a new process introduced by the Resource Management (Enabling Housing Supply and other matters) Amendment Act 2021 (**Amendment Act**), called the Intensification Streamlined Planning Process (**ISPP**). This process is primarily set out in clause 95(2) of Part 6 of Schedule 1 of the RMA.
4. On 13 April 2023, the PDP Hearings Panel and IHP jointly issued Minute 2 requesting the Council prepare a memorandum, preferably informed by legal advice, regarding the scope of Variation 1 and the applicability of clause 16B of Schedule 1 of the RMA to Variation 1. You have asked that we provide legal advice to accompany your memorandum.
5. We understand you will identify specific PDP and Variation 1 submissions that fit the categories set out at paragraph 19(a) of Minute 2 and outline the scope of Variation 1. Accordingly, our advice addresses the following matters identified in Minute 2:
 - (a) The relevant tests for determining whether Variation 1 submissions are within or outside the scope of Variation 1, including advice on consequential and/or incidental amendments;

- (b) The IHP's powers to make recommendations on Variation 1; and
 - (c) The applicability of clause 16B of Part 1 of Schedule 1, and in particular, can submissions on the PDP be deemed to be on Variation 1, and if so, what are the relevant applicable tests.
6. In preparing this advice, we have had regard to Minute 1, the Memorandum of Counsel from Chapman Tripp dated 24 March 2023 (**Chapman Tripp Memo**), and Minute 2.

The relevant tests for determining whether submissions are within scope of Variation 1

7. A variation (or plan change) is distinct from a full plan review, as the former only seeks to change an aspect of a proposed plan. In the case of a variation, case law has confirmed that Council has no jurisdiction to consider a submission point if it falls outside the scope of the variation due to it not being "on" a variation.¹
8. For a submission to be "on" a variation or plan change, the Courts have required that it satisfies the following two limbs of what has been referred to as the "Clearwater test":²
- (a) First, the submission must reasonably fall within the ambit of the variation by addressing the extent to which the plan change or variation changes the pre-existing status quo.³
 - (b) Second, the decision-maker should consider whether there is a real risk that persons potentially affected by changes sought in a submission have been denied an effective opportunity to participate in the decision-making process.⁴ This second limb is directed to asking whether there is a real risk that persons directly affected by the additional change being proposed in a submission have been denied an appropriate response.⁵
9. Whether a submission is "on" a variation or plan change is a question of fact and degree to be decided in each case in a robust and pragmatic way.⁶
10. In *Motor Machinists Limited v Palmerston North City Council*, the High Court provided the following useful observations to assist in identifying whether a submission is "on" a plan change, including in relation to submissions seeking zoning extensions:

[80] For a submission to be on a plan change, therefore, it must address the proposed plan change itself. That is, to the alteration of the status quo brought about by that change. The first limb in Clearwater serves as a filter, based on direct connection between the submission and the degree of notified change proposed to the extant plan. It is the dominant consideration. It involves itself 2 aspects: the breadth of alteration to the status quo entailed in the proposed plan change, and whether the submission then addresses that alteration.

[81] In other words, the submission must reasonably be said to fall within the ambit of the plan change. One way of analysing that is to ask whether the submission raises matters that

¹ *Paterson Pitts Limited Partnership v Dunedin City Council* [2022] NZEnvC 234 at [66] to [68].

² The test was identified by the High Court in *Clearwater Resort Limited v Christchurch City Council* HC Christchurch AP34/02, 14 March 2003.

³ *Ibid* at [69](a).

⁴ *Albany North Landowners v Auckland Council* [2016] NZHC 138 at [119] to [128]; *Palmerston North Industrial and Residential Developments Limited v Palmerston North City Council* [2014] NZEnvC 17 at [34] to [36]; *Palmerston North City Council v Motor Machinists Limited* [2013] NZHC 1290 at [90]; *Clearwater Resort Limited v Christchurch City Council* HC Christchurch AP34/02, 14 March 2003.

⁵ *Albany North Landowners v Auckland Council* [2016] NZHC 138 at [127]; *Palmerston North City Council v Motor Machinists Limited* [2013] NZHC 1290 at [82]

⁶ *Sloan v Christchurch CC* [2008] NZRMA 556 (EnvC).

should have been addressed in the s 32 evaluation and report. If so, the submission is unlikely to fall within the ambit of the plan change. Another is to ask whether the management regime in a district plan for a particular resource (such as a particular lot) is altered by the plan change. If it is not then a submission seeking a new management regime for that resource is unlikely to be "on" the plan change... Yet the Clearwater approach does not exclude altogether zoning extension by submission. Incidental or consequential extensions of zoning changes proposed in a plan change are permissible, provided that no further s 32 analysis is required to inform affected persons of the comparative merits of that change.

[82] But that is subject then to the second limb of the Clearwater test: whether there is a real risk that persons directly or potentially directly affected by the additional changes proposed in the submission have been denied an effective response to those additional changes in the plan change process. . . . To override the reasonable interests of people and communities by a submissional side-wind would not be robust, sustainable management of natural resources.

[our underlining for emphasis]

Consequential and incidental amendments

11. The Panel has requested advice on consequential and/or incidental amendments.
12. We have understood the Panel's query to be regarding whether submission requests for rezoning of land not specifically covered by Variation 1 could be considered permissibly within scope as "*incidental or consequential extensions of zoning changes proposed in a plan change*" as mentioned by the High Court in *Motor Machinists* (see quotation at paragraph 10 above).
13. The High Court in *Motor Machinists* confirmed that the Clearwater test for determining whether a submission is on a variation or plan change does not prevent submissions from seeking zoning extensions altogether. However, a "precautionary approach" is required when determining that a submission proposing rezoning of land beyond the areas being rezoned by a notified variation is within scope as an incidental or consequential further change.⁷ Robust sustainable management of natural and physical resources requires notification of a section 32 analysis of the comparative merits of a proposed variation to persons directly affected by the proposals.⁸ Incidental or consequential extensions of zoning changes proposed in a variation are permissible given that no section 32 analysis is required to inform affected persons of the comparative merits of the change.⁹
14. The High Court's reference to an "extension" of a zoning change proposed in a variation implies that a proposed rezoning that is separated from, rather than adjacent to, land proposed to be rezoned in a variation, cannot be considered within scope as a consequential and incidental zoning extension. On the facts of *Motor Machinists*, the Court held that a submission seeking that the submitter's land be rezoned was outside the scope of a plan change that proposed to rezone a different area of land that was ten lots away from the submitter's land.
15. However, the fact that a submitter's proposed rezoning is adjacent to land proposed to be rezoned in a variation does not automatically mean that the submitter's request should be considered within the scope of the variation as an incidental or consequential rezoning extension.¹⁰ Any proposed zoning extension must still meet the second limb of the Clearwater test (see paragraph 8(b) above),

⁷ *Palmerston North City Council v Motor Machinists Limited* [2013] NZHC 1290 at [91](c).

⁸ *Palmerston North City Council v Motor Machinists Limited* [2013] NZHC 1290 at [91](c).

⁹ *Palmerston North City Council v Motor Machinists Limited* [2013] NZHC 1290 at [81].

¹⁰ *Option 5 Inc v Marlborough District Council* (2009) 16 ELRNZ 1 (HC) at paragraph [41].

and that necessitates a judgement call. It is a question of fact, scale and degree to be decided in each case in a robust and pragmatic way.

16. As an illustration of making a judgement call, in *Option 5 Inc v Marlborough District Council*¹¹ the appellant argued that once the Council notifies a variation to extend the area of a Central Business Zone (**CBZ**), any submission which seeks to add directly to that zone in immediately contiguous areas would also be “on” the variation. That argument was rejected by the High Court. Rather, the High Court considered that whether a rezoning submission is “on” a plan change or variation will involve a question of scale and degree, and when considering that question, it is relevant to take into account:
 - (a) the policy behind the variation;
 - (b) the purpose of the variation; and
 - (c) whether a finding that the submissions were on the variation would deprive interested parties of the opportunity for participation.¹²
17. The Court concluded it was relevant to consider the scale and degree of the difference between a variation and the submission's rezoning request. Scale and degree was also important when considering the extent to which affected property owners are shut out of the consultation process for the purpose of determining whether the submission on a variation.¹³
18. In the circumstances before it, the Court considered that:
 - (a) The policy and purpose of the variation was modest compared to the submission. The intention of the variation was simply to support the Blenheim central business district and to avoid commercial developments outside the CBZ. By contrast, the theme of the submission was to seek a long-term expansion of the CBZ, involving over 50 properties.
 - (b) The submission to extend the CBZ beyond the area covered by the notified variation would shut potentially affected property owners out of the consultation process. In particular, there was nothing to advise potentially affected property owners that the submission could affect property interests in another zone adjoining the area which was the subject of the variation.
19. The Court was satisfied, as a matter of scale and degree, the submitter's proposed 50 property expansion of the CBZ was not within scope of the Council's more modest variation to extend the CBZ.
20. In summary, and for the reasons given above, we consider that if a rezoning request relates to land that has not had its management regime (e.g. zoning) altered by Variation 1, then:
 - (a) If that land is not adjacent to land that has had its management regime (e.g. zoning) altered by Variation 1, then it will fall outside the scope of Variation 1.

¹¹ *Option 5 Inc v Marlborough District Council* (2009) 16 ELRNZ 1 (HC).

¹² *Ibid* at [41].

¹³ *Ibid* at [43].

- (b) If that land is adjacent to land that has had its management regime (e.g. zoning) altered by Variation 1, then it can be considered as falling within the scope of Variation 1 only if, on a precautionary assessment of fact, circumstances, scale and degree, it can be considered as an "*incidental or consequential extension of zoning changes*" proposed by Variation 1. Factors relevant to consider when making the precautionary assessment include:
- (i) the policy behind a variation;
 - (ii) the purpose of the variation;
 - (iii) whether the request raises matters that should have been addressed in the s32 evaluation and report;
 - (iv) the scale and degree of difference between the submission request and the variation;
 - (v) whether the request gives rise to a real risk that persons potentially affected by changes sought have been denied an effective opportunity to participate in the decision-making process.

The IHP's powers to make recommendations

21. The IHP's powers to make recommendations of Variation 1 are set out in clause 99, schedule 1 of the RMA which states:
- (1) *An independent hearings panel must make recommendations to a specified territorial authority on the IPI.*
 - (2) *The recommendations made by the independent hearings panel—*
 - (a) *must be related to a matter identified by the panel or any other person during the hearing; but*
 - (b) *are not limited to being within the scope of submissions made on the IPI.*
 - (3) *An independent hearings panel, in formulating its recommendations, must be satisfied that, if the specified territorial authority were to accept the panel's recommendations, sections 85A and 85B(2) (which relate to the protection of protected customary rights) would be complied with.*
- [our underlining for emphasis]
22. Clause 99 does not provide the IHP with an unfettered discretion to make recommendations that fall outside the scope of Variation 1.¹⁴ Clause 99(1) makes it clear that the IHP's recommendations must still be "on" the IPI (Variation 1). We consider that the scope principles discussed at paragraphs 7 to 20 above regarding the need for a submission to be "on" a variation or plan change, equally apply to the scope of the IHP's recommendations being "on" the IPI.
23. Clause 99(2)(b) provides the IHP with an ability to make recommendations that have not been raised within the scope of submissions made on the IPI, but the recommendations must still be "on" the IPI pursuant to clause 99(1). Thus:
- (a) The IHP could make recommendations "on" (within scope of) Variation 1, even if no submitter specifically sought that recommendation in their submission, provided that it relates to a

¹⁴ As addressed in Minute 2 at paragraph 13 and the Chapman Tripp memo.

matter identified by the IHP or any other person during the hearing (as required by clause 99(2)(a)).

- (b) Submitters are able to raise matters at a hearing that were not raised in their submission, but are "on" (within the scope of) Variation 1, for the IHP to consider.

- 24. Natural justice considerations will remain relevant. The IHP also needs to turn its mind to whether any recommendations it makes are within or outside the scope of submissions. In accordance with clauses 100(2)(b) and (c) of the First Schedule of the RMA, the Panel's recommendations report needs to remain cognisant of scope matters which are outside the scope of submissions as their recommendation report needs to identify any recommendations that are outside the scope of the submissions made on Variation 1 and set out their recommendations on the matters raised in submissions.

The applicability of clause 16B

- 25. The IHP has requested advice regarding the applicability of clause 16B of Schedule 1 of the RMA to the PDP and Variation 1. In particular, the Panel queries whether submissions on the PDP can be deemed to be on Variation 1, and if so, what are the relevant applicable tests.

- 26. Clause 16B of Schedule 1 states:

- (1) *Every variation initiated under clause 16A shall be merged in and become part of the proposed policy statement or plan as soon as the variation and the proposed policy statement or plan are both at the same procedural stage; but where the variation includes a provision to be substituted for a provision in the proposed policy statement or plan against which a submission or an appeal has been lodged, that submission or appeal shall be deemed to be a submission or appeal against the variation.*
- (2) *From the date of... notification of a variation, the proposed policy statement or proposed plan shall have effect as if it had been so varied.*
- (3) *Subclause (2) does not apply to a proposed policy statement or plan approved under clause 17(1A).*

[our underlining for emphasis]

- 27. Clause 16B(1) is in two parts, separated by a semi-colon:

- (a) The first part provides for the merger of a variation with the proposed plan when they both reach the same procedural stage.
- (b) The second part is intended to protect the position of a proposed plan submitter whose submission was lodged before a variation substituted a provision against which that submission had been lodged.¹⁵ It does this by deeming the submission on the proposed plan provision to be a submission against the variation.

- 28. Clause 16B ordinarily applies to a variation being progressed through the standard procedures set out in Schedule 1 of the RMA. However, Variation 1 is an IPI that the RMA requires to be

¹⁵ *Shaw v Selwyn District Council* [2001] NZRMA 399

progressed under a modified planning process (the ISPP), rather than the standard Schedule 1 procedure.¹⁶

29. As mentioned above, the ISPP is primarily set out in clause 95(2) of Part 6 of Schedule 1 of the RMA. Clause 95(1) provides that Council "must" prepare, notify, and progress an IPI by following the relevant processes described in subclause (2). Clause 95(2) then lists a number of clauses of Schedule 1 which apply to the ISPP, to the extent they are relevant. Notably, the list in clause 95(2) does not specifically refer to clause 16B.
30. The Chapman Tripp memo asserts that as clause 95(2) does not refer to clause 16B as applying to an IPI, clause 16B does not apply to Variation 1, and therefore it is not possible under the RMA to merge the PDP with Variation 1. Two reasons are provided as follows:
 - (a) Variation 1 is not a carte blanche rezoning exercise with a substitution of zoning across the board. The extent of rezoning through Variation 1 is confined to incorporating the Medium Density Residential Standards (**MDRS**) and National Policy Statement on Urban Development 2020 (**NPS-UD**) intensification policies.
 - (b) It would be inappropriate to merge the two processes given the inherent differences in procedure (e.g. cross examination), the different appeal rights, and the express exclusion of clause 16B from clause 95(2).
31. We consider the position taken by Chapman Tripp is reasonably arguable for the reasons given in the Chapman Tripp memo. The exclusion of a reference to clause 16B in clause 95(2) suggests a mandatory merger of a PDP Schedule 1 procedure with the Variation 1 ISPP procedure was not intended by the Amendment Act. In a standard process, a mandatory merger when a variation reaches the same procedural stage as a proposed plan is workable because the two procedures align – they are both progressed using the same Schedule 1 procedure.
32. By contrast, differences between the Schedule 1 procedure for the PDP and the ISPP procedure for Variation 1 make a mandatory merger between these two procedures confusing at best, and potentially conflicting at worst, with misalignment between the two procedures in terms of (for example) cross-examination, the constitution of hearings panel, differing appeal rights, and the potential for recommendations under the ISPP process needing to go to the Minister.
33. In our view these factors suggest that clause 16B was not intended to apply to Variation 1, and its absence from clause 95(2) was intentional.
34. While we consider the Chapman Tripp position is reasonably arguable, in our view there remains sufficient uncertainty introduced by the Amendment Act into the RMA to support counter arguments that clause 16B does apply to the PDP and Variation 1. For example, it could be argued that:
 - (a) Clause 95(2) makes express reference to clause 16A applying to an IPI (Variation 1).

¹⁶ Section 80F(3)(a) of the RMA.

- (b) Clause 16A(2) states "*[t]he provisions of this schedule, with all necessary modifications, shall apply to every variation as if it were a change*". The phrase "provisions of this schedule" is a reference to the provisions of Schedule 1.
 - (c) As clause 16B is a provision of Schedule 1, clause 16B would still apply to an IPI by virtue of being referred to in clause 16A, which is referred to in clause 95(2).
35. In our view, what the above illustrates is that there is uncertainty in the legislation regarding whether or not clause 16B applies to an IPI (Variation 1). We understand the IHP will be obtaining and considering the views of submitters regarding the applicability of clause 16B before deciding whether clause 16B should be applied.¹⁷ Without the benefit of considering submitter views on the issue, it appears the argument against clause 16B applying to the PDP and Variation 1 is stronger than the argument in favour of clause 16B applying.
36. A consequence of clause 16B not applying to the PDP and Variation 1 is that there is no automatic (or mandated) protection of the position of a PDP submitter (or further submitter) whose submission was lodged before Variation 1 substituted the PDP provision that was submitted on (see paragraph 27(b) above). In effect, clause 16B is unavailable to deem the submission on the PDP provision to be a submission against Variation 1 that varies that PDP provision. This gives rise to the potential for PDP submitters being disenfranchised from pursuing their original relief on the PDP in the context of the provisions as varied by Variation 1.

Pragmatic considerations

37. If the IHP determines that clause 16B does not apply to the PDP and Variation 1, then that does not mean it is impossible to:
- (a) obtain benefits of managing the PDP procedure and the Variation 1 procedure so as to enable integrated decision-making and hearing efficiencies; and/or
 - (b) protect the position of a PDP submitter whose submission was lodged before Variation 1 substituted the PDP provision against which that submission had been lodged.
38. We understand the PDP Hearings Panel and IHP are regulating their procedures so that PDP and Variation 1 hearings can occur simultaneously, with the intended outcome being an integrated set of recommendations. We also understand that the Panels are taking care to ensure there is no full merger of the two procedures into a single procedure. Rather, as the Panel has identified, there are different decision-making requirements and appeal rights for the PDP and Variation 1 that are to be maintained. By way of example:
- (a) Although there will be an integrated set of recommendations, the Panels will clearly differentiate which recommendations are made under the standard Schedule 1 procedure (and thus able to be appealed to the Environment Court), and those made under the ISPP (with no right of appeal).¹⁸

¹⁷ Minute 2, paragraphs 21 to 22.

¹⁸ Minute 1, paragraph 18.

- (b) There will be no cross-examination of witnesses by other submitters, except as provided for on submissions on Variation 1.¹⁹
 - (c) The hearing, deliberations and recommendation processes will be managed to ensure PDP Hearings Panel members Commissioners Mealings and Atkinson do not play a role in respect of Variation 1 (i.e. only the IHP will be involved on Variation 1).²⁰
39. However, there is potential for protecting the position of a PDP submitter through alternative means. The IHP has the discretion to accept late submissions pursuant to clause 98(3) of the First Schedule of the RMA. Although the clause does not specify criteria to consider when exercising that discretion, guidance can be taken from sections 37 and 37A of the RMA which provides Council with a discretion to waive compliance with time limits for lodging submissions. There is potential for the discretion to be exercised in a way that enables PDP submissions that could have been deemed as a Variation 1 submission under clause 16B (had it applied) to instead be "carried over" as a late Variation 1 submission.
40. In determining whether to waive compliance with time limits, section 37A requires Council to take into account:
- (a) the interests of any person who, in its opinion, may be directly affected by the extension or waiver; and
 - (b) the interests of the community in achieving adequate assessment of the effects of a proposal, policy statement, or plan; and
 - (c) its duty under section 21 to avoid unreasonable delay.
41. Should PDP submitters claim prejudice or disenfranchisement from having assumed an ability to comment on the PDP provision originally submitted on that has since been substituted by Variation 1, then those submitters could request the IHP to exercise its discretion under clause 99(3) to carry over their PDP submission point as a late submission on Variation 1. If PDP submission points in respect of a PDP provision being substituted by Variation 1 can be carried over as late submissions, then that may cure any disenfranchisement that would otherwise occur if clause 16B does not apply. PDP submitters would be able to retain the ability to pursue their original relief on the PDP in the context of the provisions as varied by Variation 1.

Concluding comments

42. The Panel has requested that Council identifies the following categories of submissions:
- (a) PDP submissions on "relevant residential zones";
 - (b) PDP submissions on provisions of the PDP substituted by Variation 1;
 - (c) PDP submissions in relation to land that is now proposed new residential zones in Variation 1;

¹⁹ Minute 1, paragraphs 95, 111 to 117.

²⁰ Minute 2, paragraph 7.

- (d) PDP submissions seeking new residential zoning outside of relevant residential zones and proposed new residential zones in Variation 1; and
 - (e) IPI submissions seeking new residential zones.
43. We understand you are preparing a memorandum identifying the submissions fitting the above categories. Assuming submissions are identified as falling within the above categories, and that the PDP submissions are capable of becoming submissions on Variation 1 (whether by deeming under clause 16B, or "carried over" as a late Variation 1 submission), then an issue arises as to whether submissions fitting the above categories would fall within the scope of Variation 1.
44. Without having reviewed submissions being allocated to the above categories, from a broad conceptual perspective, we anticipate that:
- (a) Submission points fitting categories (a) to (c) should fall within the scope of Variation 1 on the understanding that such points would clearly and directly be impacted by the alteration to the status quo brought about by Variation 1, and should not raise a "submissional side wind" that gives rise to a real risk of denying potentially affected person an effective opportunity to participate. For example, PDP submissions on "relevant residential zones" should be within scope of Variation 1 because the RMA requires Variation 1 to change all "relevant residential zones" by applying MDRS or introducing a qualifying matter to make MDRS less enabling in those zones.²¹
 - (b) Submission points fitting categories (d) and (e):
 - (i) Will not fall within the scope of Variation 1 if seeking new residential zoning that is separated from (rather than adjacent to) relevant residential zones and proposed new residential zones in Variation 1.
 - (ii) May fall within the scope of Variation 1 if they are seeking new residential zoning that is adjacent to relevant residential zones or proposed new residential zones in Variation 1. However, a determination will be required on a case by case basis as to whether particular rezoning requests are permissibly within scope as "*incidental or consequential extensions of zoning changes proposed in a plan change*" (see paragraphs 11 to 20 above).

Yours faithfully
Buddle Findlay



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²¹ See for example sections 77G, 77I.

Appendix E. External expert evidence

**Before the Hearings Panel
At Waimakariri District Council**

Under Schedule 1 of the Resource Management Act 1991

In the matter of the Proposed Waimakariri District Plan

Between **Stream 12e submitters requesting Residential Medium
Density (RMD)
No. 183
No. 2990
No. 173 and 208**

And **Waimakariri District Council**

**Statement of evidence of Mark Gregory on behalf of Waimakariri District
Council, Transportation Planning**

Date: 5th July 2024

INTRODUCTION:

- 1 My full name is Mark Andrew Gregory. I am employed as a Principal Transport Planner at WSP New Zealand.
- 2 I have prepared this statement of evidence on behalf of the Waimakariri District Council (**District Council**) in respect of technical related matters arising from the submissions and further submissions on the Proposed Waimakariri District Plan (**PDP**).
- 3 Specifically, this statement of evidence relates to the matter of Submissions relating to rezoning sought by the four submissions named in paragraph 9.
- 4 I am authorised to provide this evidence on behalf of the District Council.

QUALIFICATIONS AND EXPERIENCE

- 5 I hold the qualifications of Master of Engineering in Transportation (University of Canterbury, 2016) and BA (Hons) Planning with Transport (University of the West of England, 2007). I am a Chartered Transportation Planning Professional (CTPP).
- 6 I have worked for WSP as a Principal Transport Planner for two years, having previously been employed as a Transport Network Planner for Christchurch City Council for nine years. I have fifteen years' experience in the transport planning and engineering field, including considerable experience in preparing and assessing transport assessments, assisting formal hearing processes on multiple occasions and substantial contributions to the Christchurch District Plan Review (2015 – 18).
- 7 I am a Chartered Member of the Institute of Highways and Transportation, as a Chartered Transportation Planning Professional (CTPP). I am the vice chair of the Engineering New Zealand Transport Group national committee, a member of the national committee for

Transportation Modelling and a Board Member of the Trips Database Bureau, since 2017.

8 I have had assistance from the following people in forming my view while preparing this evidence:

8.1 Shane Binder, Senior Traffic Engineer, who has provided advice relating to WDC transportation projects, and the Long Term Plan (LTP).

Code of conduct

9 I have read the Code of Conduct for Expert Witnesses set out in the Environment Court's Practice Note 2023. I have complied with the Code of Conduct in preparing my evidence and will continue to comply with it while giving oral evidence before the Environment Court. My qualifications as an expert are set out above. Except where I state I rely on the evidence of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

SUMMARY

10 My statement of evidence addresses the submissions in Table 1 from a transportation perspective.

Table 1: Submissions reference

Submission No.	Submitter name	Site
183	Richard and Geoff Spark	Southeast Rangiora
290	Doncaster Developments	Corner Lehmans and Parrot Road, Rangiora
173	The Moore's and Momentum Development	147 & 177 Ferry Road, Kaiapoi and 310 Beach Road, Kaiapoi
208	Suburban Estates Ltd	Northeast Kaiapoi

11 In summary:

11.1 I support in part submission #183 subject to conditions

11.2 I support #173 subject to conditions

11.3 I cannot yet support #208

11.4 I cannot yet support #290.

12 My reason for support includes:

12.1 For Southeast Rangiora (submission #183), split into three distinct blocks:

12.1.1 Block A proposed a small commercial centre (a café) with a modest trip generation outcome proposed. The proposal would be fitting of a local centre, with environmental outcomes such as short-trips, including walking and cycling. However, alternative activities could establish which would value prime access to and from the Rangiora Eastern Link Road, such as a fast-food outlet. In my opinion, further investigation is required into the potential effects of more

intensive activities than the café proposed by Ms Williams.

12.1.2 Block B proposes 290 dwellings, which I could be able to support, providing the Outline Development Plan (ODP) road network adopts suitable network management practices. I don't support more intersections on the REL Road, including a roundabout suggested in the evidence of Ms Williams. In my opinion, main access points to the REL Road should be facilitated via a roundabout on Boys Road. In my opinion further investigation is required to establish the design requirements of the proposed REL Road / Boys Road roundabout with the additional demands from Block B, and the adequacy of planning to date to accommodate.

12.1.3 Block C proposes a Light Industrial zone potentially accommodating an activity of 20,000 m². In my opinion, the trip generation potential of this activity may have been underestimated by Ms Williams, noting alternative published trip generation values which are six times greater than those applied in the submission... Therefore, I consider that more information be sought to allow for an appropriate assessment of Block C.

12.2 For 144 and 177 Ferry Road, Kaiapoi (Submission #173), I support the change of zoning to Residential Medium Density, subject to mitigation at the Williams Street / Smith Street / Beach Road intersection being specified as signals. I do not support alternative forms of mitigation suggested in the evidence of Mr Carr. I also strongly recommend requirements that public transport connections be designed

for, through suitable design of the spine road, and ensuring catchments are allowed for in the ODP, in accordance with the Operative District Plan requirements. As part of ensuring public transport connectivity, I would support further work into the Beach Road / Tuhoë Avenue intersection to avoid public transport vehicles being caught up in delays forecast in the transportation evidence of Mr Carr.

12.3 For 310 Beach Road, Kaiapoi (Submission #173) I support the proposal on the same grounds as above (same submission), noting that Mr Carr's analysis and evidence considers all addresses listed under submission #173 together. I also support the upgrade of the Beach Road frontage, including the kerb and footpath, and request that attention be paid to providing seamless connectivity to the surrounding active travel network.

13 My reasons for not supporting at this stage:

13.1 For Suburban Estates (Submission #208), I have not seen a transport assessment and therefore have no opportunity to draw firm opinions yet.

13.2 For Lehman's Road, Rangiora (Submission #290), I cannot yet support the Medium Density Residential outcome for the location, based on the submitted ODP and lack of consideration of connectivity to Rangiora town. It relies on traffic filtering through local roads to reach key destinations in the town, and does not consider opportunity to encourage active travel into town which could partially mitigate this concern. There is no collector road connection available west of West Belt; practically this cannot be resolved due to the existing road network. There is a proposed route (the Northwest arterial) which would join up with Lehman's Road, however in my opinion this offers only partial mitigation,

given that it doesn't connect the site to the town. The supporting evidence of Mr Edwards is also acknowledged to be 'preliminary'.

INVOLVEMENT WITH THE PROPOSED PLAN

14 I have been involved in the PDP since December 2023.

SCOPE OF EVIDENCE

15 My statement of evidence addresses potential transportation effects arising from submissions seeking rezoning to more intensive land use than in the Proposed District Plan (PDP). The effects relate to impacts on the receiving environment, as well as the planning outcomes of the proposal itself, such as connectivity, level of service and accessibility.

16 The scope of my evidence does not extend to policy alignment matters.

GENERAL ASSESSMENT – ACCESSWAYS

17 A common theme in the submissions suggests accessways are intended to be increasingly relied upon to provide access, presumably as a lower cost option than the provision of a road. In terms of high usage of laneways, I have two concerns:

17.1 Private accessways generally operate as shared areas, and tend not to enjoy amenities comparable to a road environment, such as planting which can improve the quality of the environment by providing shade, visible amenity, and other benefits associated with psychological health and wellbeing.

17.2 There is also a demonstrable hazard associated with children in conflict with vehicles on shared accessways, and specific design outcomes identified to avoid this outcome, including

avoiding the overreliance of private accessways in subdivision design¹. Other design responses would include clear segregation of outdoor living areas (play areas) from locations which accommodate vehicles.

- 18 Furthermore, accessways are not vested in Council, meaning that upkeep and maintenance will be required of the community. The Christchurch City Council Infrastructure Design Standard (IDS Part 8, Rooding), Section 8.12 recommends a balance of the 'long term maintenance costs for the residents against the benefits of providing access through a vested road².'
- 19 The Operative Plan (Chapter 30, Utilities) provides instances where accessway are managed - for example making provision for 3 – 6 dwellings to be accessed via a right of way, including the required width (Table 30.3), and specifies the outcome of common ownership (30.6.1.15).
- 20 The District Plan Review provides an opportunity to place limits around the use of laneways for access.

ASSESSMENT OUTCOMES

Southeast Rangiora (Submission #183)

- 21 The submission relates to multiple sites including:
- 21.1 17 and 19 Spark Lane
- 21.2 197 and 234 Boys Road

¹ Safekids New Zealand (2011) Safekids New Zealand position paper: Child driveway run over injuries. Auckland: Safekids New Zealand.

² For avoidance of doubt, I did not find an equivalent statement in the Waimakariri Engineering Code of Practice

22 The land parcels are referred to in Ms Williams' transport evidence as Blocks A - C, shown in Figure 1.

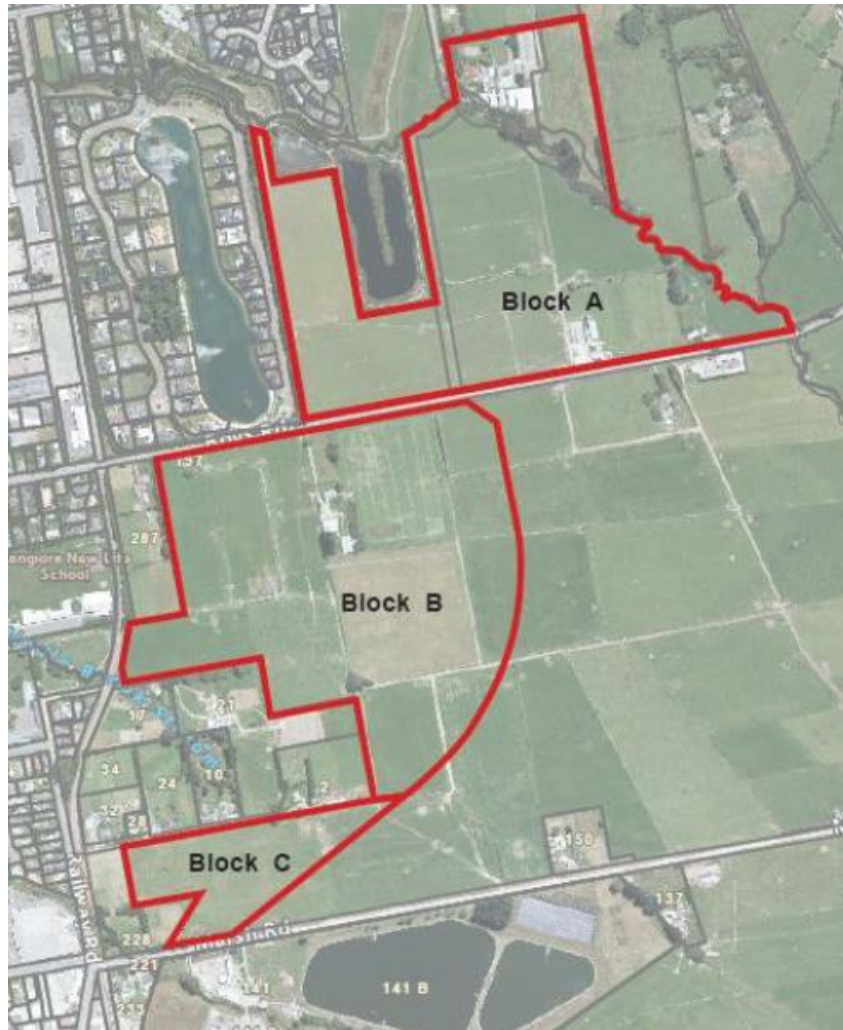


Figure 1: Location of Blocks A – C, Submission #183 (evidence of Ms Lisa Williams, Figure 1, reprinted).

23 The specific changes sought for each block are described as:

23.1 Block A: changes to the Rangiora South East Outline Development Plan (RSEODP) to reflect updated alignment of the proposed Rangiora Eastern Link Road³, however I am advised that this change is no longer proposed. Block A proposes to make provision for a 'local centre to

³ Evidence of Ms Williams, paragraph 9 (a)

accommodate a small café or similar,' with an expected gross floor area (GFA) of 650 m².

- 23.2 The evidence of Ms Williams⁴ anticipates the café would generate 33 trips per peak hour (equivalent of 5.5 trips per 100 m²). This assessment is based on an empirical source⁵. I consider this estimate to be low, for the reasons specified below, but the actual figure would likely to be within a range where potential effects would be manageable.
- 23.3 Block B: rezone from general rural to residential medium density, including approximately 290 residential dwellings and connections supporting potential future development at 287 Boys Road, (shown in Figure 1 as the block of land not included in the Block B area, to the northwest). The evidence of Ms Williams estimates trip generation outcome of 261 peak hour vehicle movements⁶, which are similar to my own calculations.
- 23.4 Block C: future rezoning for purposes of Light Industry. The evidence of Ms Williams suggests a premises of 20,000 m² GFA,⁷ and a potential trip production capacity of 100 – 200 peak hour trips.⁸

Assessment of Block A

- 24 I have considered the local centre identified by Ms Williams, and the example of a café which could establish there. However, there are

⁴ Evidence of Ms Williams, paragraph 20 (e)

⁵ RTA Guide to Traffic Generating Developments

⁶ Evidence of Ms Williams paragraph 21

⁷ Evidence of Ms Williams paragraph 24

⁸ RTA Guide to Traffic Generating Developments

other activities which may establish (depending on zoning), with potential greater effects than a café.

- 25 The node is currently proposed within the Medium Density Residential zone. I recommend that zoning, and accompanying subsequent investigation be undertaken, both in relation to the location and potential effects of more transport intensive activities which could establish.
- 26 The small commercial node could include activities of a more transport intensive nature, for example a fast-food premises. This could occur if the node was zoned as a Neighbourhood Centre, which allows for 'convenience activities.' Direct access to the REL Road could perpetuate this outcome.
- 27 Whilst Ms Williams estimates 33 trips for a cafe⁹, I have undertaken a check using the Trip Rate Information Computer System online database (TRICS), which returns a range of approximately 8-13 trips per 100 m², corresponding to 53 – 80 trips. Whilst TRICS provides a range (albeit with caveats and limitations), it does suggest that the value of 33 trips could be considered low.
- 28 In my opinion, site access to and from the REL Road should not be allowed, favouring a network management strategy instead where site and local road intersections are provided on collector roads. This frees up the purpose of the arterial road, which is to provide efficient connectivity between suburbs and towns. (The need for a well-managed network outcome is also a key theme for Block B (below) and detailed in paragraphs 36 - 44).

⁹ Evidence of Ms Williams, paragraph 20 (e)

- 29 A desirable outcome for a local centre would be one where all trips are walkable, reducing the need for car travel and allowing for the repurposing of space other than for car parking.
- 30 Within the location currently proposed, the commercial node would require:
- 30.1 Access to the REL Road, and subsequent access management which would undermine the primary purpose of the REL Road as an arterial road
 - 30.2 Connectivity with the proposed education/community area, including a crossing of the REL Road and a potential crossing of Northbrook Road.
- 31 Were Block B to be approved, a more accessible location might be closer to the centre of the combined Block A and Block B residential areas.
- 32 I recommend that the zoning of the commercial node be undertaken as part of the development of a finalised ODP. This would include investigation and assessment of potential transportation effects of a broader range of activities which could establish. A further outcome of this process should include identifying appropriate network mitigation.

Assessment of Block B

- 33 The proposal for Block B, and the resulting approximate 261 vehicle movements per hour¹⁰, represents a significant addition in network demands.

¹⁰ Evidence of Ms Williams paragraph 21

- 34 Based upon previous planning work which I have undertaken for the REL Road, the proposed trip generation potential is the equivalent of approximately 13% of the Rangiora East growth area.
- 35 In my opinion it is possible that development could be accommodated within residual transport capacity, based upon:
- 35.1 The outcomes of modelling included in Appendix 4 in the evidence of Ms Williams
- 35.2 Modelling investigations into the REL Road, previously undertaken by WSP and summarised by Ms Williams¹¹
- 35.3 Potential for active travel and public transport accessibility.
- 36 However, I disagree with the proposed access plan to Block B, including the design of intersections on the REL Road servicing Block B. Ms Williams notes¹² that for priority intersections onto REL Road, all movements would operate with a good level of service, except for the right turn movement (from the side road), which must give way to all other movements, which would require mitigation for safety reasons.
- 37 In my opinion the forecast delays of 10 minutes per vehicle also indicates an anticipated crash problem, based on research which connects delays at priority intersections with crash outcomes, (i.e. drivers taking risks)¹³. Without specifically relating to safety issues¹⁴, the evidence of Ms Williams refers to the outcome as 'poor performance'.

¹¹ Evidence of ss Williams, paragraphs 19 - 28

¹² Evidence of Ms Williams, paragraph 89

¹³ Tupper et.al (2011); Connecting Gap Acceptance Behaviour with Crash Experience

¹⁴ Evidence of Ms Williams paragraph 89

38 Ms Williams considers design mitigation, in the form of either restricting right turn movements, ('left in – left out' intersection design) and/or a roundabout. Neither of these configurations have been investigated further by Ms Williams. I do not support another roundabout on the REL Road.

39 In my view, the potential effects of mitigation should be considered more fully. For example, based on Ms Williams's analysis, an additional roundabout onto the REL Road would slow and delay the movements of more than 2,000 people per hour (a flow of approximately 1,700 vehicles per hour (vph)), to support turning demands serving less than 100 vph.

40 This is highlighted in Figure 2, which an extract from the Austroads Guide to Traffic Management, which guides design in New Zealand and Australia. It generally indicates against a roundabout control type between a local street and primary or secondary arterial road.

Road type	Primary arterial	Secondary arterial	Collector and local crossing road	Local street
Roundabouts				
Primary arterial	A	A	X	X
Secondary arterial	A	A	A	X
Collector & local crossing road	X	A	A	O
Local street	X	X	O	O
Traffic signals				
Primary arterial	O	O	O	X
Secondary arterial	O	O	O	X
Collector & local crossing road	O	O	X	X
Local street	X	X	X	X
Stop signs or give way signs				
Primary arterial urban/(rural)	X(X)	X(O)	A	A
Secondary arterial urban/(rural)	X(O)	X(O)	A	A
Collector & local crossing road	A	A	A	A
Local street	A	A	A	A

A = Most likely to be an appropriate treatment
 O = May be an appropriate treatment
 X = Usually an inappropriate treatment.

Figure 2: Austroads Guide to Traffic Management Part 6, Intersections, Interchanges and Crossing Management. Table 3.6

41 In my view, a better network management approach is based on hierarchies, to improve efficient operating outcomes. The use of a roundabout control would be useful to accommodate right turn

demands, and therefore provide network capacity. A collector road would be the appropriate location for a roundabout with a local road. Therefore, a roundabout would be best included on the Boys Road corridor. The efficiency of this outcome has not been tested.

42 Access to the site could still be included from the REL Road, where it results in an intersection which does not impact on the REL Road flow.

43 Boys Road requires upgrading to support Block A. The requirement must also meet the needs of Block B, and be developer-led and funded. Block B would also require inclusion within the REL Road Development Contribution area.

44 My recommended approach to network management (alternative to Ms William's) would have consequences on the design efficiency of the REL Road/Boys Road roundabout, which should be tested and understood, and necessary design identified (and potentially made a requirement), before I could support it.

Assessment of Block C

45 On Block C, I do not consider there is enough information in order to support future rezoning at this stage. The trip generation assumed in the evidence of Ms Williams is very low, and in my opinion further assessment is required based on higher figures.

46 Although detailed traffic assessment would be 'required at a later date'¹⁵, an estimate of 100 – 200 vehicles per hour is suggested, based on a range of 0.5 – 1 trips¹⁶ per 100 m². In my own assessment, referring to an alternative source widely used in the industry¹⁷, there

¹⁵ Evidence of Ms Williams, paragraph 24

¹⁶ RTA Guide to Traffic Generating Developments

¹⁷ NZTA Research Report 453 (2011): Trips and Parking related to land use

are a range of three activities which could feasibility establish in the proposed site, generating between 1 and 6.2 vehicle movements per 100 m². The potential difference of 1,000 vehicles per hour could result in effects of a more than minor degree of severity.

47 The difference in potential vehicle generation, including heavy vehicles would likely result in a different scale of environmental effects, including:

47.1 The proposed REL Road / Marsh Road intersection is a priority intersection, which may not have sufficient capacity to support safe and appropriate access.

47.2 The Marsh Road carriageway is narrow and would require upgrading.¹⁸ This would require design changes to the level crossing. I would recommend that conditions or rules should be imposed based on upgrading Marshes Road. However, aspects of the design outcomes would be ultra vires, depending on the support of KiwiRail as a key stakeholder.

48 The proposed District Plan does include a High Trip generator rule (TRAN MD-11) which includes some assessment matters which could address some of the above potential effects.

49 However, the rule would be applied only through individual resource consents. In my opinion, an Integrated Transport Assessment (ITA) of the potential activities on the site should be prepared in order that the full potential transport effects can be understood, and necessary mitigations (e.g. road widening, intersection improvements) identified.

¹⁸ Evidence of Ms Williams, p41 (para 104)

Lehmans Road, Rangiora (Submission #290)

- 50 The site is 11.6 hectares¹⁹. Mr Edwards' transportation assessment²⁰ is based on an understanding of a yield of 110 dwellings on an area of 10.5 ha²¹. I calculate this to be in the order of 9.5 dwellings per hectare²². Whilst the zoning in the proposed plan would result in approximately 23 dwellings, the estimate of 9.5 dwellings per hectare would be lower than 15 dwellings per hectare (or more) proposed through the other Medium Density Residential submissions.
- 51 For context, an outcome of 15 dwellings per hectare would result in 174 dwellings.
- 52 Mr Edwards has estimated a trip generation rate of 10.9 trips per unit per day,²³ which is the estimated number of trips for rural dwellings and slightly higher than the 8.2 vehicles per day expected of suburban households.
- 53 Accounting for the differences in expected yields (households per hectare) and trip rate (trips per dwelling per day), Mr Edwards predicts a daily generation of 1,199 trips, whereas I would suggest 1,427 trips could be a possible outcome, were a yield of 15 households per hectare to materialise, at a slightly lower trip rate of 8.2 vehicles per household.
- 54 The hierarchy of the receiving network is shown²⁴ which appears based on the Northwest Rangiora Outline Development Plan (ODP), map 155.²⁵

¹⁹ Submission #290, page 1

²⁰ Submission #290, Appendix H (p160)

²¹ Submission #290, Appendix H (p154)

²² Assuming a site of 11.6ha divided by 110 dwellings

²³ NZTA Research Report 453 (2011) Trips and Parking related to Land use

²⁴ Submission #290, Appendix H, Figure 3, (page 156)

²⁵ https://www.waimakariri.govt.nz/__data/assets/pdf_file/0012/141420/sht155-dp2005.pdf

These routes have not been included on the operative District Plan Road hierarchy.²⁶

- 55 There appears to be a gap in the collector road network towards the town, of approximately 375 m, where Belmont Avenue is identified as a local road. Belmont Avenue is also designed as a local road, including a 6.6 m wide carriageway plus a parking lane. It would not meet the requirements of a collector road under either the operative or proposed District Plan,²⁷ including a single footpath and parking lane, instead of the required two. It also includes traffic calming devices, including ‘tight’ geometry with the intersection on Oakwood Drive. Oakwood Drive includes a ‘throttle’ on approach to Belmont Avenue.
- 56 These design circumstances are characteristic of a local road, intended to deter “through traffic”. However, the design requirement of a collector road is to carry through traffic, including some heavy traffic for local access, and public transport.
- 57 There are limited opportunities within the existing network to provide for collector road requirements in order to appropriately connect the site to the surrounding town.
- 58 Forecast vehicle trip generation is estimated by Mr Edwards (Submission, Appendix H) for the receiving environment, and an estimate of daily traffic is estimated based on observation (‘existing environment’) and with the effects of the submission scenario. It concludes an outcome whereby these roads would be subjected to a small amount of traffic, and that the resulting traffic flows would be ‘imperceptible within ambient traffic volumes’.

²⁶ https://www.waimakariri.govt.nz/__data/assets/pdf_file/0011/141401/sht136-dp2005.pdf

²⁷ WDC District Plan, Section 30, Utilities and Traffic Management, Table 30.1

- 59 I cannot yet support the traffic assessment because:
- 59.1 The base counts were undertaken at a time when network demands were suppressed by the COVID pandemic.
 - 59.2 The most direct connection to Rangiora (via Belmont Avenue) is assigned just 20% of total demand, whereas I would expect this to be higher.
 - 59.3 I also note the proposed yield at less than 10 dwellings per hectare. If a higher density outcome were a reasonable consideration, then additional traffic generation would result.
- 60 The existing environment was based on traffic surveys undertaken during November 2021. In my opinion, qualified by substantial research into the effects of the COVID pandemic on the transport system, data gathered during this time period is almost certainly unreliable for purposes of establishing an existing environment.
- 61 November 2021 coincided with the rise of the Delta variant resulting in a spike of people both self-isolating and concerned to go out. In a significant survey conducted by NZTA²⁸, the September – December 2021 period saw a spike in the numbers of respondents partially or fully self-isolating (72%), and a statistically significant 50% increase in those concerned to go out for fear of either infection or transmission.
- 62 To resurvey the network during a more ‘representative’ period would likely elevate the level of the traffic environment baseline. The difference in assessment outcome might be consequential in terms of

²⁸ Waka Kotahi Covid 19 transport impact (March 2022), Fieldwork waves 1-27 core report

quantifying the environmental impacts of routing development traffic through the adjoining local road network.

- 63 The 'environmental capacity' is a research-based consideration²⁹ developed in Christchurch, with an estimated threshold of between 1,500 – 2,000 vehicle per day. Beyond this threshold, the research describes that the amount of traffic results in changes in how residents perceive their street, which further results in outcomes such as 'retreating' from the street front (e.g. constructing high boundary fences, locating the living room in the rear of the house), or perceiving safety effects as a pedestrian.
- 64 Environmental capacity is not an exact science. I have successfully applied it in the past, in a situation where the amount of additional traffic proposed was well above the threshold range.
- 65 In this case, if the difference in the baseline flows for Belmont Avenue were increased by 20% (to compensate for the 'COVID effect' on the traffic counts), the resulting situation with development would increase from 1,332 to 1,532 vpd, or into the 1,500 – 2,000 range of environmental capacity noted above.
- 66 I have included the traffic generation estimate from the Submission document, see Figure 3:

²⁹ Chesterman and Koorey, 2010, "Assessing the environmental capacity of local residential streets"

Figure 3: Submission #290, Appendix H (Mr Ray Edwards), Table 3, with Belmont Avenue highlighted

Network Link	Existing Volume	Future Volume
Lehmans Road	1610	2090
Huntington Drive	1500	1680
Charles Upham Drive	1500	1680
Sandown Boulevard	500	1220
Belmont Avenue	1092	1332
West Belt (north of High St)	6449	6749
West Belt (north of Seddon)	3327	3627
Oxford Road (west of Lehmans)	5823	5943
Oxford Road (east of Lehmans)	6519	6579
High Street (east of West Belt)	6892	6952

- 67 The Appendix H traffic assessment includes assumptions of route choice in the surrounding network, which support the overall effects based conclusions. Appendix H does underline its status as ‘preliminary’ advice.
- 68 Usually, route choice and network effects associated with larger housing developments are tested in transport models, which can predict the traffic patterns and delays associated with proposed development. The models work by predicting the quickest path between the development site and key destinations.
- 69 In this case, a logic-based estimate is presented by Mr Edwards, including an assumption that 60% of trips are made to/from the ‘south or southeast’. The definitions of the compass point zones are not clarified, and I assume that south-east includes the town centre and most schools, and the south includes connections to Christchurch City. The remaining 40% cover the north, west and east.
- 70 The method behind assigning weightings is not set out. Weightings should be based on the locations of key destinations, or using census data (or using a mathematical algorithm which takes these into account, plus also accounting for the probable journey length).

71 The route towards the town centre and most schools may be both actually and perceived to be more direct via Belmont Avenue, which would result in more traffic using it than suggested in Figure 3.

72 Based on the above factors, including adjusting the baseline to account for the ‘COVID factor,’ I have developed Figure 4 to demonstrate alternative possible traffic demands on Belmont Avenue. As a reminder, the theoretical environmental capacity of a local road is between 1,500 and 2,000 vehicles per hour (vph) and it can be seen that the predictions are within the range of this threshold. This means that the effects of the rezoning could potentially noticeably change amenity within the surrounding road network.

Figure 4: Alternative possible outcomes on Belmont Avenue

% traffic to Belmont Ave	Dwelling Yield	Development traffic (vpd)	Total traffic (vpd)
			1,310
20%	10 / hectare	240	1,550
20%	15 / hectare	285	1,595
40%	10 / hectare	480	1,790
40%	15 / hectare	571	1,881

73 The design of the ODP concept does limit site access to the local road network, via the Sandown Bvd, showing other eastbound connections as ‘green links’. Parrott Road is shown as providing access to Lehmans Road at the southernmost extent of the site.

74 Lehmans Road is proposed by WDC to be developed as a freight route, with some improvements included in the Long Term Plan (LTP) such as the Lehmans Road / Johns Road roundabout included for 2031³⁰. This route would also include the ‘northwest arterial,’ shown on the ODP as the Parrot Road. As an arterial road, it might provide a freight bypass around Westbelt. The mix of an arterial road with medium density

³⁰ LTP finalised on 25th June 2024

housing would not be ideal, and if approved, I would recommend a suitable access management response be reflected within a revised ODP, which could include restricting access

75 The route is also identified in the Waimakariri walking and cycling plan as providing a route for low confidence / family riders. This facility would take the form of a dedicated path, following the line of the northeast primary road shown on the concept ODP. However, it is not indicated on the ODP.

76 In my opinion, the inclusion of the northeast arterial would not fully mitigate the lack of Collector road access serving the site from the east.

77 I also note that, within the current 80 km/h zone, the distance between the two proposed primary road intersections onto Lehmans Road, at approximately 400 m, would not meet the requirements of the operative District Plan³¹ of 550 m. Under the proposed District Plan, the requirements would increase to 800 m.

78 A mitigation could be to reduce the speed limit, however this would be both an ultra vires requirement (requiring gazetting by NZTA) and would need to be considered in the context of possible friction with other intended functions of Lehmans Road, including the movement of freight.

79 I also note the issues of active travel connectivity between the site and the town. The closest school, Ashgrove School, would be 2 km away, limiting walking and cycling opportunities.

80 For reasons set out in paragraphs 17 to 20, roads provide comparably better service, whereas long shared driveways rely on private maintenance and are associated with toddler deaths.

³¹ WDC District Plan, Section 30, Utilities and Traffic Management, Table 30.7

81 Overall, I consider the submission requires amendments to support the Residential Medium Density zoning it seeks, including:

81.1 Consideration of active travel connectivity between the site and the town centre/schools and opportunities to provide this;

81.2 Review of the internal ODP layout to encourage a connected road network, rather than encouraging shared driveways/accessways;

81.3 Including the walking/cycling path on the ODP along Lehmans Road and the northwest arterial;

81.4 Measures to prohibit driveways onto Lehmans Road / the northwest arterial.

82 There are existing constraints in the Rangiora road network which are difficult to address as the town is already established. I note my high level of assessment of Belmont Avenue suggests it has capacity for increased traffic. However, I consider there are some network improvements and updates to the ODP which could assist the connectivity of the site to the main activity centres in town.

83 I also note that the transport advice of Mr Edwards accompanying the submission is defined as 'preliminary,' suggesting scope for changes and updates, which could include addressing the matters in paragraph 81.

144 & 177 Ferry Road, Kaiapoi (Submission #173)

84 The combined site area of 144 and 147 Ferry Road is 28.5 ha. The evidence of Mr Carr³² considers that between 600 and 900 dwellings

³² Evidence of Mr Carr, paragraph 17

could result. Based on my calculation, this would equate to 21 - 32 dwellings per hectare.

85 I have not found a definitive trip generation value in Mr Carr's evidence. I would normally expect the vehicle generation to be in the order of between 4,725 and 7,200 vehicle movements per day (corresponding to the above possible development yields) based on 8 trips per household.³³ The peak hour demands could range between 450 – 750 vehicle movements. I note Mr Carr's comments that the outcome would 'vary for a variety of reasons³⁴,' which I agree with.

Assessment of ODP concept

86 Mr Carr's assessment includes identifying some roading upgrades, as well as specifying the suitability to accommodate a bus service "if appropriate"³⁵. In my opinion, it is appropriate to provide for a bus service through the site, given the scale of the proposal. Designing to accommodate choice of travel options is an outcome sought by the Proposed District Plan.

87 I understand that Environment Canterbury (ECan) has historically indicated interest in providing a public transport service in east Kaiapoi. There is also an ongoing programme to increase frequencies of public transport (the 'PT Futures' programme), which includes increasing frequencies to Kaiapoi. Mr Carr notes the existing service frequencies of 30 minutes (Rangiora – Cashmere) and 60 minutes (Pegasus – City).³⁶

88 The benefits of rerouting public transport via the subdivision would include increased patronage, relative to the existing Williams Street

³³ Based on NZTA Research Report 453: Trips and Parking related to land use.

³⁴ Evidence of Mr Carr, Appendix A, paragraph 6.1.1

³⁵ Evidence of Mr Carr, Appendix A, paragraph 7.2.7

³⁶ Evidence of Mr Carr, Appendix A, paragraph 4.2.2

route, which is abutted on one entire length by a golf course. If rerouted, the route catchment could potentially increase by up to approximately 1,000 dwellings.³⁷

89 I cannot identify an alternative viable public transport route available in the existing Suburban Estates subdivision.

90 Including public transport in the ODP would also require roading design considerations, as noted by Mr Carr (ibid). It also requires an ODP outcome reflective of ensuring walkable catchments. This is demonstrated in the Operative Plan, requiring 'not less than 90% of dwellings....within 500 m of a proposed bus route.' (Engineering Code of Practice Part 8, Roothing, s8.15.1), partially demonstrated in Figure 5:

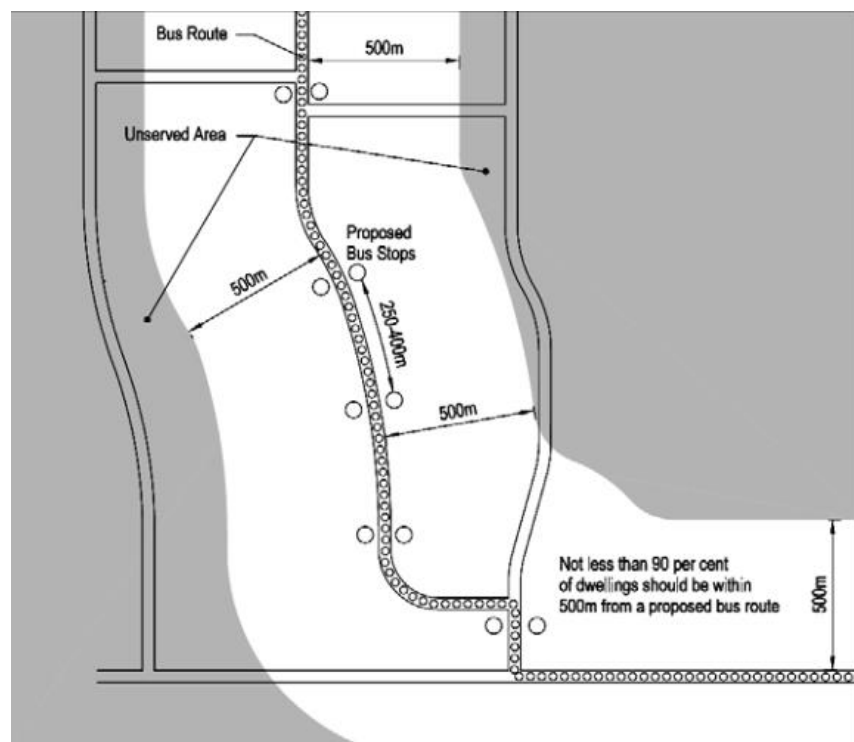


Figure 5: Engineering Code of Practice Part 8, Roothing, s8.15.1, Figure 8.3

³⁷ Including the proposed subdivisions and approximate number of dwellings currently not included within the

91 The proposed ODP concept, shown in Figure 6, appears to reflect a connected network layout, which is likely to support a walkable public transport catchment.



Figure 6: "Illustrative Masterplan", extract from Evidence of Mr Carr, Appendix A, Figure 9

92 The layout shown in the proposed ODP does include some undesirable outcomes, which would require investigation, including:

92.1 Some obtuse intersection alignments

92.2 Commonality of four-way priority intersections, which are less safe than 'staggered T' alternatives. Four arm intersections. Four-way intersections include 24 possible vehicle trajectory conflict points, whereas 'staggered T' intersections include 18.

92.3 Possible design geometry constraints of the roundabout.

93 These details could be resolved through a formal ODP development process, subject to conditions requiring the inclusion of public transport.

Assessment of proposed network mitigation measures

- 94 I do not agree with all of the network mitigation options proposed by Mr Carr.
- 95 Mr Carr's evidence shows count data (turning movements observed in 'February 2024' and 'March 2023') in Figure 3 and 4 of Appendix A. The specific dates and circumstances of collection are not specified, but I trust the count data has been sourced appropriately.
- 96 The count data does not take into account some of the uncompleted developments in the area, henceforth not representing the consented environment. Mr Carr states the incomplete development as 308 residences and further the equivalent vehicle generation outcomes by applying additional traffic including a rate of 1 peak hour vehicle trip per dwelling, a rate based on 'previous assessments'³⁸.
- 97 No combined future turn count data (i.e. estimated 'receiving environment' plus estimates of traffic generation associated with this submission) is included.
- 98 Intersection capacity analyses for the receiving environment estimates (morning and evening peak hour operations) are included and predict good to excellent levels of service.³⁹
- 99 Mr Carr estimates the additional trip generation associated with the submission, adding the traffic to his estimated receiving environment, and performs intersection capacity analysis to estimate the effects of development on all intersections servicing the development, and the Smith Street / Williams Street / Beach Road roundabout.

³⁸ Evidence of Mr Carr, Appendix A, paragraph 4.1.3 – 4.1.6

³⁹ Evidence of Mr Carr, Appendix A, Table 1 and Table 2.

100 Mr Carr undertakes intersection capacity analysis, based on the ranges of demands which may result, depending on development outcome (as summarised above in paragraphs 84 - 85).

101 Most of the assessment pertains to the Smith Street / Williams Street / Beach Road roundabout, which is found to have insufficient capacity to support the development.

Assessment of Smith Street / Williams Street / Beach Road roundabout

102 Mr Carr clearly sets out in Appendix A Table 4 that he predicts that during the morning peak hour, the Beach Road approach loaded with development traffic would experience significant delays and queuing. He does not specify the exact values, only that the delays per vehicle would exceed 4 minutes 10 seconds, and the 95th percentile⁴⁰ queue would exceed 100 m long.

103 The morning peak is the worst expected period, given that most traffic would rely on the same intersection to exit the area. During the evening peak, most development traffic is returning, dispersed across more of the approaches, and raising delays, but not to the same extent.

104 I offer a simplified table (Table 2) showing Mr Carr's forecast outcomes for the Smith Street / Williams Street / Beach Road roundabout, by scenario and showing the category levels of service relating to delays ("A" being excellent, "F" being "failed").

⁴⁰ That is, there would be a 5% probability of the maximum queue length exceeding this. The 95th percentile is the industry accepted queue length for design purposes.

Table 2: Summary table of Mr Carr's modelling outcomes of Smith Street / Williams Street / Beach Road roundabout

Scenario	Level of Service, Time Period	
	Morning Peak	Evening Peak
Receiving environment	A	B
Plus development traffic (low estimate)	F	C
Plus development traffic (high estimate)	F	F

- 105 Mr Carr proposes and models mitigation for each trip generation estimate outcome, including:
- 105.1 Low development outcome – a second, short Beach Road approach lane
 - 105.2 High development outcome – transformation from roundabout to traffic signals.
- 106 For the low development outcome, I would question the effectiveness of this proposal. I have not seen the detailed analysis behind it.
- 107 The concept second lane is reprinted below in Figure 7 for convenience:



Figure 7: Evidence of Mr Carr, Appendix A, Figure 16: concept second lane to accommodate 'low' development scenario traffic

- 108 Space for the second lane is created by removing kerb build outs which contribute to the safe roundabout design geometry as well as reducing pedestrian crossing widths. This is a crossing which would conceivably be used by residents of a retirement village at 310 Beach Road, were the submission successful. (Please note that although I separate out the assessment of 310 Beach Road (submission #173), Mr Carr does cover this in conjunction with submission #144 and #177 in his evidence).
- 109 Mr Carr's modelling predicts a transformative outcome, from ">250 seconds" to 37 seconds delay for the east approach, based on providing an additional short approach lane. However, models are tools used by transport engineers and sometimes require interrogation.
- 110 I question the effectiveness of a short lane intended on serving left turn movements only – or approximately 25%⁴¹ of the total flow 'arriving' at the roundabout. An average queue of four vehicles would include a single left turn demand, and if placed towards the end, would be unable to reach the short lane.

⁴¹ Calculated from Mr Carr's turning count estimates

111 This is further evidenced in modelling for the ‘maximum’ traffic scenario, which includes the short second lane scenario. This is shown in Mr Carr’s evidence, Appendix A, Table 8, reprinted below in Table 3. For the Beach Road approach through and right turn movements, the forecast delay is “>250 seconds”. For the left turn movement, it is 15 seconds.

Table 3: Extract from Evidence of Mr Carr, Appendix A, Table 8

Road and Movement		Morning Peak Hour			Evening Peak Hour		
		Avg Delay (secs)	95 %ile Queue (veh)	Level of Service	Avg Delay (secs)	95 %ile Queue (veh)	Level of Service
Williams Street (south)	L	35	11	D	71	47	F
	T	35	11	D	71	47	F
	R	38	11	D	74	47	F
Beach Road	L	15	3	B	9	1	A
	T	>250	>100	F	7	2	A
	R	>250	>100	F	11	2	B
Williams Street (north)	L	15	13	B	47	23	D
	T	15	13	B	46	23	D
	R	18	13	B	50	23	D
Smith Street	L	8	2	A	>150	65	F
	T	8	2	A	>150	65	F
	R	11	2	B	>150	65	F

Table 8: Peak Hour Levels of Service at the Williams Street / Beach Road / Smith Street Roundabout (Maximum Practical Yield, Short Second Lane on Beach Road Approach)

112 The difference between Beach Road turning movements delays per movement seems unlikely, considering that all left turn traffic is required to negotiate a queue predicted to be 100 m long prior to arriving at the intersection.

113 The modelling outcomes for the high development scenario (defined in paragraph 84) shown above indicates capacity issues on two of the approaches, although not at the same time.

114 Mr Carr identifies traffic signals as a means of providing extra capacity, providing an example of the Glandovey Road / Idris Road intersection in Christchurch, which was upgraded from roundabout to traffic signals in 2016.

115 In my view, signal control would be the most appropriate solution, given that it can provide additional capacity in a compact format. The

alternative would be a larger roundabout, which would require the purchase and demolition of four properties to achieve. The signals option, if mimicking the outcome at the Glandovey Road / Idris Road intersection would not require land purchase.

- 116 At this stage, a detailed feasibility assessment of intersection design layout has not been undertaken, which could identify key effects (e.g. on surrounding properties) or site characteristics which could impact upon cost. However, I agree that it is an appropriate means to accommodate development.
- 117 Mr Carr offers two distinct development scenarios of 600 and 900 dwellings, respectively, and a form of mitigation for each. The outcome may lie between these two thresholds. Conditions specifying developer-sponsored upgrades are usually specified by the number of dwellings.
- 118 In my opinion, the threshold for signal controls is lower than 900 dwellings, noting that:
- 118.1 I disagree with the likely effectiveness of the proposed mitigation for the 'low' development scenario (600 dwellings).
- 118.2 The level of service 'F' ('Fail') category is already passed under the 'Minimum' scenario, for one approach.
- 118.3 The medium development scenario Level of Service (LOS) F applies to delays of 80 seconds or more. The average delay per vehicle specified by Mr Carr for both the medium and high development scenarios is ">250 seconds,' equivalent of four minutes.
- 118.4 I have conducted an analysis shown below which suggests the operational 'tipping point' at which signals would be

required would occur more closely to the minimum than the maximum development scenario.

119 I have analysed Mr Carr's evidence and data to develop Figure 8. It shows the relationship between modelled demand (vehicles per hour) and delay, and the pattern between the outcomes of the receiving environment, the minimum and maximum development scenarios. Although this samples the outcome for a single movement at the intersection, the pattern would be the same for any other movement. It is typical in traffic engineering that each additional vehicle added will increase the overall delay at an escalating rate.

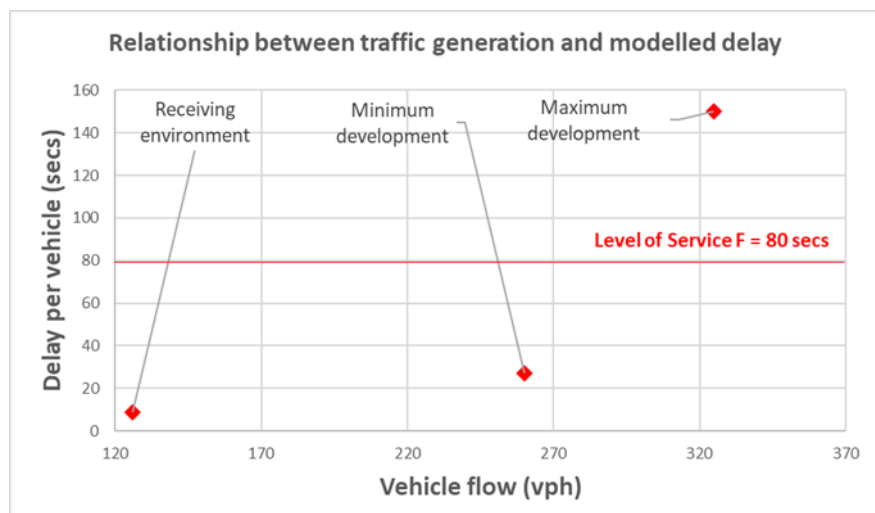


Figure 8: Relationship between traffic generation and delays, derived from Mr Carr's evidence and models

120 Figure 8 is developed as a reference, rather than a tool on which to base a detailed position. I note that the true value of the highest delay is not known, as it is reported by Mr Carr as ">150" seconds. For convenience, I shall treat it as 150 seconds.

121 Figure 9 shows an application of the relationship shown in Figure 8, to intercept the point in flow at which LOS F would be reached. It is an aid to demonstrate that, in addition to the Beach Road approach which is shown to have 'failed' at the minimum development outcome, the

Smith Street and Williams Street approaches would like 'fail' prior to the 'maximum development' outcome.

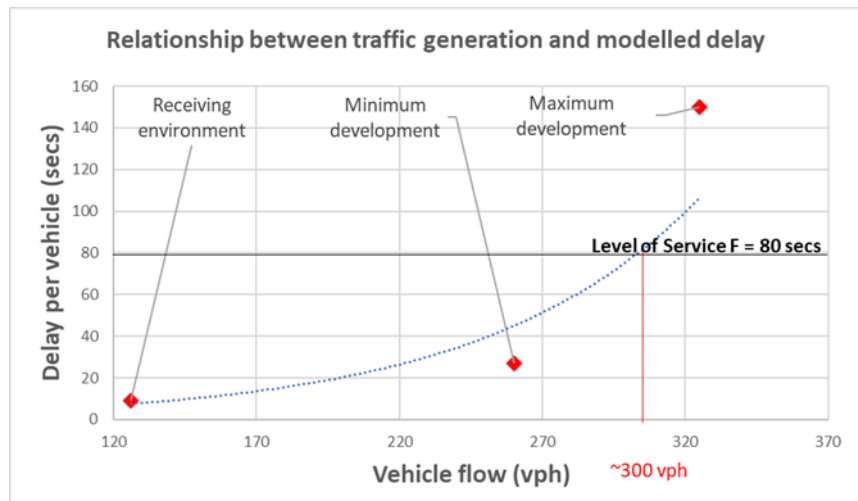


Figure 9: Intercepting the point at which Level of Service F would be triggered.

122 Figure 9 is oversimplified, but does highlight the classic exponential relationship between demand and delay. It shows interception of the exponential trend (which notably isn't a perfect fit) at around 300 vehicles per hour. If the relationship between vehicle generation and development is approximately linear, then 300 vph represents about 60% of the maximum traffic outcome. This could be interpreted to mean that LOS F would be reached under a development scenario of approximately 780 dwellings.

123 I also note that Level of Service F is a 'worst case' target. Delays of 1 minute would be reached at around 715 dwellings, following the same approach shown in Figure 9.

124 I question the use of 'present day' design flows on which to base network design decisions. Detailed design outcomes should be able to accommodate growth. For context, if the demands at the intersection were to grow 2% per year, the 300 vehicles per hour shown in Figure 9 would be reached by year 8.

- 125 In my opinion, an appropriate requirement for the Smith Street / Williams Street / Beach Road roundabout is to require an upgrade to signals, because:
- 125.1 There is indication of level of service failure at the minimum development scenario, and I have included above my reasons for why a mitigation options of a short second lane would not be effective.
 - 125.2 I am of the opinion that the trigger for the intersection reaching Level of Service F (a universally accepted 'fail' point) would like occur well within the maximum development scenario.
 - 125.3 The actual development outcome would likely be within the identified minimum and maximum ranges. Based on this assumption, my own and Mr Carr's analysis, I conclude that signals would probably be an eventual requirement.
 - 125.4 The impact on the existing community, without signals, would represent a more than minor effect.
- 126 I agree with Mr Carr's identification of a signals scheme, and suggest it is a requirement of the rezoning if the rezoning request is granted. I recommend the requirement identify that the scheme be designed in full and implemented at full cost to the developer, to the satisfaction of the road controlling authority.
- 127 Mr Carr specifies a subsequent planning stage where Restricted Discretionary assessment could be used to assess network mitigation.

He acknowledges that 'if no improvement scheme is possible, consents can be declined.'⁴²

128 In my opinion, a rule attached to the re-zoning should be included which requires signals at the Smith Street / Williams Street / Beach Road roundabout, because a signalised intersection represents a significant change to the local environment, and should be indicated as early as possible.

Assessment of Beach Road / Tuhoe Drive

129 Mr Carr's evidence indicates that for the 'full' development scenario, the right turn side movement from Tuhoe Avenue would experience high demands and a poor level of service during the morning peak.

130 A poor level of service outcome can result in poor safety outcomes, as high delays are associated with driver risk taking.⁴³

131 The outcome caused by a combined 594 vehicles attempting to turn right from the subdivision, giving way to 425 vehicles. By applying first principles methods, it is possible to calculate that the rate of arrival for the right turners is one vehicle per 6 seconds, whereas the 'processing' rate would be 19 seconds. This results in snowballing of delays.

132 This outcome is a different context to the Smith Street / Williams Street / Beach Road roundabout, noting that:

132.1 It is a matter which affects one movement, at one time of the day, not multiple movements across different times of the day.

⁴² Evidence of Mr Carr, Appendix A, paragraph 7.1.19

⁴³ Tupper et.al (2011); Connecting Gap Acceptance Behaviour with Crash Experience

- 132.2 The network context is different: it is a side road from the subdivision. A much smaller portion of the community would be affected. However, there is a desire to include public transport. The outcome would undermine public transport journey time reliability in the mornings.
- 132.3 There are other opportunities to address this issue, including the enhancement of active travel and public transport measures.
- 132.4 Mr Carr notes⁴⁴ that a reduction of 53 households could result in an improved Level of Service outcome.
- 133 During the morning peak, the flow rate out of the subdivision would be greater than the flow rate opposing it. This would suggest two options, based on the design flows:
- 133.1 Reversing the intersection priority
- 133.2 A small roundabout.
- 134 Either option would result in increased delays on Beach Road, including traffic from Pines Beach. Furthermore, a good level of service is forecast for all other periods of the day.
- 135 Either option would also support public transport services.
- 136 I recommend that this be considered further in an Integrated Transport Assessment, and that the scope of this work should be focussed in part through the requirement to provide for a public transport service through the subdivision.

⁴⁴ Evidence of Mr Carr, Appendix A, paragraph 7.1.15

310 Beach Road, Kaiapoi (Submission #173)

- 137 This site has been considered by Mr Carr in conjunction with 144 and 177 Ferry Road (Submission #173). My conclusion drawn for the upgrades to the Smith Street / Williams Street / Beach Road roundabout also relate to this submission.
- 138 The traffic generation for the combined two submissions has not been separated out by Mr Carr.
- 139 Mr Carr again considers a range of development outcomes, being 100 and 145 residences for the minimum and maximum ranges, respectively. For peak hour movements, he applies 1 vehicle movement per dwelling.
- 140 The site is self-contained, with no other network connection options other than to and from Beach Road. There is a paper road running on the eastern boundary and provision indicated for future connectivity from the site, should it be formed.⁴⁵
- 141 The main intersection serving the site would appear to form a four-arm intersection with Meadow Street. Four arm intersections are undesirable outcomes owing to the relatively high number of vehicle conflict points and therefore poor safety outcomes (see paragraph 92).
- 142 Beach Road on the site frontage includes an open drain, and no footpath. There is a proposal to include kerb and footpath on the Beach Road frontage. I recommend that this should be a requirement of the final ODP. I further recommend that attention should be paid to the connections into the existing active travel infrastructure, so that it is part of a seamless network.

Suburban Estates (Submission #208)

143 I have not seen a Transport Assessment in relation to this submission.

144 The ODP area is shown within the red polygon in Figure 10. It covers an area of approximately 30 ha, which is a similar area of that covered by Submission #173.

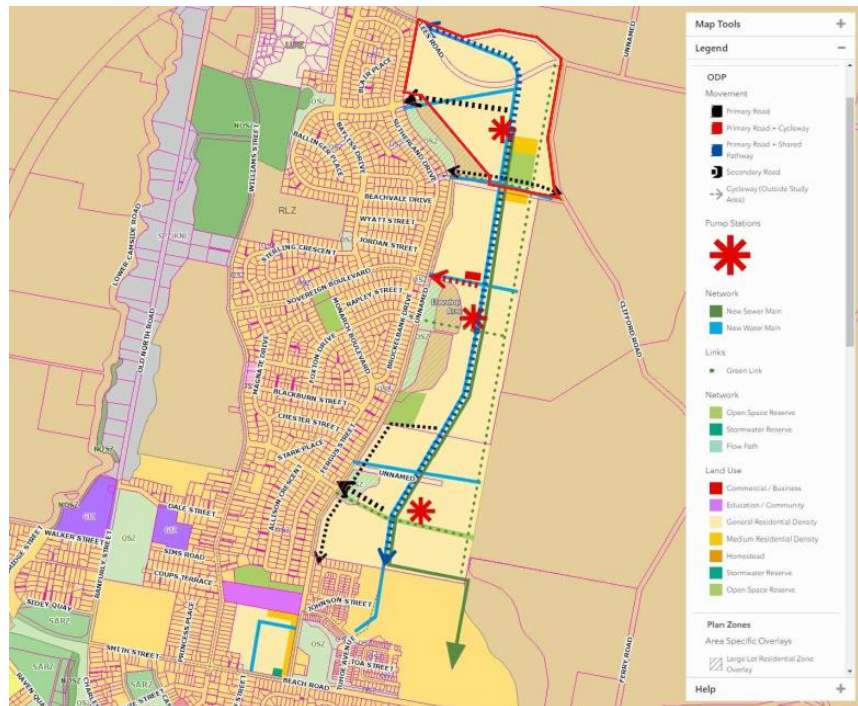


Figure 10: Concept ODP, Submission statement, Appendix 3

145 For context, the mitigations recommended for submission #173 include the transformation of the Smith Street / Williams Street / Beach Road intersection from roundabout to signals.

146 The ranges of development assumed by Mr Carr for submission #173 represented in excess of 20 dwellings per hectare. If developed at the same rate, the area could yield more than 600 dwellings.

- 147 I calculate the trip generation rate of 600 dwellings to be approximately 4,800 vehicle trips per day⁴⁶, or a peak hour generation rate of 450 – 540 vehicle movements per hour.
- 148 The proposed area is located within the wider ODP (shown in Figure 10, above), which includes a total of 100 ha and a potential cumulative vehicle generation of 16,000 vehicle trips per day.
- 149 In my opinion, the potential for public transport services to mitigate cumulative transportation effects cannot be overstated. Approximately half of commuted trips from Kaiapoi are destined for Christchurch city. There is potential to run Bus Route 1 (Kaiapoi – Cashmere) through the spine road of the ODP. Given that approximately 25% of all trips are commuting, public transport connections to Christchurch could serve 2,000 trips per day (resulting from the entire Figure 10 ODP area) which would otherwise have been driven by car.
- 150 The development can also accommodate a local commercial centre, well connected by active travel opportunities.
- 151 The submission does not include an assessment of potential transportation effects. Further information should be provided
- 151.1 Commitment to network design which allows for a quality Public Transport service, with 90% of dwellings located within public transport catchments.
 - 151.2 Active travel network connectivity to Kaiapoi town centre.
 - 151.3 The capacity of intersections on the existing network. For context, the Williams Street / Beach Road signals concept proposed by Mr Carr to mitigate the submission #173 traffic

⁴⁶ NZTA Research Report 453 (2011) Trips and Parking rates for Land use

was developed within the road corridor. This design may not provide sufficient capacity to accommodate the additional development.

151.4 Network upgrades, including Lees Road.

152 Mr Carr suggested that submission #173 would add up to approximately 839 vehicles per hour (vph) to the Williams Street / Beach Road intersection, requiring its upgrade. Cumulative effects resulting from submission 208 have the potential to further increase the design requirements of the upgrade. In my opinion, this could potentially trigger requirement for a larger intersection, including land acquisition.

153 I cannot form an opinion as no transport assessment has been provided. Given the large development area proposed, I recommend that a combined land use / transport infrastructure plan, aimed at minimising vehicle generation is developed, after which the appropriateness of the development could be assessed from a transport perspective.

CONCLUSION

154 For each submission, I have identified specific effects to be avoided or mitigated. I therefore recommended:

Southeast Rangiora (Submission #183)

Block A

155 In my opinion the residual issue is the nature and type of activities which could eventuate in the 'small commercial node,' and that the potential transportation effects should be tested.

156 Ms Williams describes a café generating 33 trips per hour, which might be considered low in term of both estimates from alternative empirical sources, and the large gross floor area of 650 m².

157 In my opinion, an activity of 33 trips per hour could be easily accommodated, as a local centre. However, the zone which could include this centre may also make provision for more transport intensive activities than the café example offered by Ms Williams.

158 The proposed commercial node location is within proximity to the REL Road, presumably implying direct access to the REL Road. I have set out the network management principles (including extracts from Austroads) in the above assessment of Block B, qualifying my opinion as to why direct access to the REL Road should be limited (paragraphs 38 - 42).

159 A local centre would predominantly serve the surrounding residential area, and would attract trips within easy walking and cycling distance. A well planned local centre could support outcomes of a walkable community, which is also associated with public health and quality of place.

160 I therefore conclude that the small commercial centre would likely be accommodated within the network, without effects, provided it is located and designed to serve local needs. This outcome would avoid the necessity for direct access from the REL Road.

Block B

161 I have not identified Block B in growth strategies to date. Henceforth my support for Block B would be based on an ODP which supports the existing objectives, including the functionality of the REL Road as an Arterial Road.

162 In practice, this means avoiding further intersections or points of delay for REL Road traffic. Ms Williams has suggested an additional roundabout could be included to facilitate some turning movements which would otherwise operate with a poor level of service. I do not support another roundabout on the REL Road.

163 A roundabout would slow around 1,700 vehicles per hour, for the benefits of facilitating around 100 turning movements. The Austroads design guidelines does not recommend a roundabout at an arterial / local road intersection, partly to avoid a disproportionate impact on the arterial road network.

164 I would prefer an outcome which facilitates access onto Boys Road, which could include another roundabout. In my opinion, this constitutes an appropriate network management response.

165 Consequently, the REL Road designation and/or concept design should be checked for adequacy of sufficient design geometry to accommodate this additional demand, including at:

165.1 The roundabout at REL Road / Boys Road

165.2 The roundabout at Lineside Drive / REL Road.

166 I could support Block B upon determination of sufficient network design capacity.

Block C

167 In my opinion the assumed trip generation which has supported assessment is unrealistically low, given that published values include generate rates in order of magnitude 6 times greater than those applied.

168 I recommend requiring an assessment of effects which reflects higher trip generation outcomes.

Lehmans Road, Rangiora (Submission #290)

169 In my assessment, I consider that the site is disconnected from the town, served by residential streets which are intentionally designed to deter through traffic, including Belmont Avenue. These roads are clearly intended to service residential access, and are not designed to fulfil the role of collector roads.

170 Local roads have an 'environmental capacity', beyond which the ambient traffic levels are believed to cause deterioration of interactions between the households and the street. This manifests itself in 'retreat' from the street, including the development of high fences and a decline in neighbourly interactions. The approximate range at which this occurs is considered to be 1,500 – 2,000 vehicles per day⁴⁷.

171 In my opinion, the proposal could increase traffic levels on Belmont Avenue from under this threshold to well within it.

172 Although the submission indicates that the development impacts would not meet this threshold, I consider the supporting assessment uncertain because:

172.1 The counts used to establish the baseline were undertaken in November 2021, as the Delta Covid variant was causing people to remain at home out of caution, and henceforth skewing traffic surveys downwards

⁴⁷ Chesterman and Koorey, 2010, "Assessing the environmental capacity of local residential streets"

- 172.2 The assumptions for future traffic patterns associated with the development are not clear, and assign a modest proportion to Belmont Avenue, noting its role as the most direct road connection to the town, town centre and schools,
- 172.3 The Medium Density Residential zone can make provision for higher development yields than the hypothetical 9.6 households per hectare offered in support of the submission (roughly the equivalent of quarter acre sections).
- 173 Accounting for either one of the above three factors has potential to increase Belmont Avenue traffic levels noticeably, and possibly to the longer term detriment of residential amenity.
- 174 In my opinion, the combination of all three parameters could take effect: that is, increasing the baseline to account for the 'Covid effects', the outcome of a higher share of traffic wanting to use Belmont Avenue, and a higher development density.
- 175 Furthermore, the site is remote, being 2 km from the nearest school, and borders a route that is being developed to potentially carry freight.
- 176 The development of the Northeast arterial would not provide direct access towards the town, and would not therefore fully mitigate the lack of accessibility stated above. The cycle way identified in the Waimakariri walking and cycling plan (following the alignment of the Northeast arterial) has not been identified.
- 177 If the proposal were approved, I would recommend access management, to avoid direct access to Lehmans Road and the northwest arterial. I would also recommend more provision for access, including development of active travel networks.

144 & 177 Ferry Road, Kaiapoi (Submission #173) and 310 Beach Road, Kaiapoi (Submission #173)

- 178 I consider there to be three key matters in this submission:
- 178.1 Ability of public transport to service the subdivision, including the design of an ODP which maximises catchment and futureproofs opportunities to develop the catchment into future development stages of northeast Kaiapoi.
 - 178.2 The intersection of Beach Road / Tuhoe Avenue, and delays in the morning peak (including delays to future public transport services), and the greater vehicle flows using Tuhoe Avenue than Beach Road, possibly suggesting need for change in intersection priority.
 - 178.3 Capacity of Williams Street / Beach Road roundabout, and the likelihood of signals being required.
- 179 Public transport services would require accommodation in the design of the spine road, as well as an ODP which would provide the connectivity required to deliver public transport walkable catchments. An outcome of 90% of dwellings within the public transport catchment is a requirement of the operative District Plan. The public transport route has capacity to service commuted trips to Christchurch city, noting that half of Kaiapoi residents commute to Christchurch city.
- 180 I therefore conclude that the ODP should be developed to accommodate public transport. This would also include measures to resolve delays on Tuhoe Avenue, which would also impact on public transport vehicles.
- 181 In my opinion, the Williams Street / Beach Road intersection should be signalised. The evidence of Mr Carr considers a range of possible development outcomes (and subsequent development traffic), and he

recommends network mitigation scaled to each outcome. However, I specify reasons why I consider that the minimum mitigation would not be effective, and further that a threshold for signals would likely occur at a point of increased demand which would be far lower than that generated by the maximum development outcome.

182 In my opinion, a development outcome mid-way between minimum and maximum would likely require generate the need for signals, and this should be tested in modelling.

183 Further consideration should be given to northeast Kaiapoi, and the possible need for designation to support intersection upgrades. Staging of the development and infrastructure should be planned concurrently.

Suburban Estates (Submission #208)

184 I have not seen a transport assessment included in this submission

185 I would support an assessment which commits to safeguarding and developing a north-south public transport corridor, and achieving 90% of development within the public transport catchment which at least meets the operative plan requirements. I would further support inclusion of walkable neighbourhood centres, and delivery of a quality active travel connection to Kaiapoi town centre.

186 Intersection upgrades, such as the Williams Street / Beach Road intersection should be identified. The outcome for submission #173 – which was for approximately one third of the traffic which could occur under this submission – was a signalised intersection, contained within the road boundary. In my opinion, there is a possibility that a larger intersection could be required if the rezoning sought in submission #208 was also granted, and this will require appropriate consideration, including use of a strategic network model.

187 In conclusion, strategic planning to develop quality multi-modal transport outcomes within the ODP (and surrounding improvements) will be the key to achieving an efficient and well-functioning transport outcome.

Date: 05/07/24

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.

.....

Appendix F. Council internal expert evidence

**Before the Hearings Panel
At Waimakariri District Council**

Under Schedule 1 of the Resource Management Act 1991

In the matter of the Proposed Waimakariri District Plan

Between **Various**

Submitters

And **Waimakariri District Council**

Respondent

Statement of evidence of Shane Binder (Transport), John Aramowicz (Servicing, Hazards), Christopher Bacon (Hazards), Jon Read (Green Space) on behalf of Waimakariri District Council.

Date: 15 July 2024

INTRODUCTION:

Mr Shane Isaac Binder (Transport)

1 My full name is Shane Isaac Binder. I am employed as the Senior Transportation Engineer for Waimakariri District Council.

2 I have prepared this statement of evidence on behalf of the Waimakariri District Council (**District Council**) in respect of technical related matters arising from the submissions and further submissions on the Proposed Waimakariri District Plan (**PDP**).

3 Specifically, this statement of evidence relates to transportation technical advice, identifying any significant constraints.

4 I am authorised to provide this evidence on behalf of the District Council.

Mr John Thomas Aramowicz (Servicing, Hazards)

5 My full name is John Thomas Aramowicz. I am acting as a consultant engaged to provide technical advice on behalf of the Waimakariri District Council.

6 I have prepared this statement of evidence on behalf of the Waimakariri District Council (**District Council**) in respect of technical related matters arising from the submissions and further submissions on the Proposed Waimakariri District Plan (**PDP**).

7 Specifically, this statement of evidence relates to civil, hazards and geotechnical engineering advice, identifying any significant constraints in relation to the various submissions that seek an alternative zoning to that originally put forward by WDC's Proposed District Plan.

8 I am authorised to provide this evidence on behalf of the District Council.

Mr Christopher Paul Bacon (Hazards)

9 My full name is Christopher Paul Bacon. I am employed as a Network Planning Team Leader at Waimakariri District Council. In this position I am involved with planning for infrastructure growth and flood modelling.

10 I have prepared this statement of evidence on behalf of the Waimakariri District Council (**District Council**) in respect of technical related matters arising from the submissions and further submissions on the Proposed Waimakariri District Plan (**PDP**).

11 Specifically, this statement of evidence relates to servicing and hazards technical advice, identifying any significant constraints.

12 I am authorised to provide this evidence on behalf of the District Council.

Mr Jonathan Spencer Read (Green Space)

13 My full name is Jonathan Spencer Read. I am employed as a Green Space and Community Facilities Planner.

14 I have prepared this statement of evidence on behalf of the Waimakariri District Council (**District Council**) in respect of technical related matters arising from the submissions and further submissions on the Proposed Waimakariri District Plan (**PDP**).

15 Specifically, this statement of evidence relates to Proposed District Plan rezoning requests.

16 I am authorised to provide this evidence on behalf of the District Council.

QUALIFICATIONS AND EXPERIENCE

Mr Shane Isaac Binder (Transport)

- 17 I hold the qualifications of Bachelor of Science in Civil Engineering from Pennsylvania State University (USA), and a Master of Science degree in Civil Engineering from the University of Colorado (USA), both with specialisations in transport.
- 18 I have more than 22 years' experience as a professional traffic engineer and road safety specialist, both in New Zealand and abroad. I have had the position of Waimakariri District Council Senior Transportation Engineer for the last three years. In this role I manage the District's transport planning, strategy, and engineering functions, including road safety, traffic modelling, parking, and public transport elements.
- 19 Although this matter relates to a District Council hearing, I have read the Code of Conduct for Expert Witnesses set out in the Environment Court's Practice Note 2023. I have complied with the Code of Conduct when making my brief summary statements. My qualifications as an expert are set out above.
- 20 I am a Chartered Professional Engineer (CPEng), a Professional Engineer (Colorado and Washington State, USA), and a Road Safety Professional (Level 1) certified by the Institute of Transportation Engineers. I am a Chartered Member of Engineering New Zealand. I am also a member of the Transportation Group of Engineering New Zealand and am on the steering committee of the Safety Practitioners Sub-group.

Mr John Thomas Aramowicz (Servicing, hazards)

- 21 I am a Chartered Professional Engineer in the practice areas of civil and geotechnical engineering. I gained a Bachelor of Engineering in Mining Engineering from Curtin University in 1994.

- 22 I have over 20 years of experience as a civil and geotechnical engineer in Canterbury where I have consulted on numerous land development projects, insurance claims, and build projects.
- 23 I was employed by Eliot Sinclair from April 2004 until April 2022. I was a Principal of Eliot Sinclair from 2015 to 2022, and was elected as a Director of Eliot Sinclair in mid-2019 before resigning from the role in November 2021.
- 24 Subsequently was employed by the Waimakariri District Council from August 2022 to December 2022 on a part-time basis, and then as a casual employee up to January 2024.
- 25 I was also employed by Miyamoto International New Zealand Limited (MINZ) on a casual basis from September 2022 to January 2024. Each of the projects I assisted MINZ with were located outside the Waimakariri District Council area.
- 26 My main area of technical expertise is the assessment and management of risk from natural hazards, such as flooding, liquefaction, rock fall, land slippage, and subsidence. I also have experience with the design and construction of stormwater, water and wastewater systems in both rural and urban environments.
- 27 I am contracted by the Waimakariri District Council to provide civil and geotechnical engineering advice in relation to the various submissions that seek an alternative zoning to that originally put forward by WDC's Proposed District Plan.
- 28 Although this matter relates to a District Council hearing, I have read the Code of Conduct for Expert Witnesses set out in the Environment Court's Practice Note 2023. I have complied with the Code of Conduct when making my brief summary statements. My qualifications as an expert are set out above.

29 I note that several submissions have included technical reporting that was undertaken by Eliot Sinclair.

30 Two of Eliot Sinclair's submissions, submission #224 and submission #266, contain technical reports from 2021 that I had reviewed and signed in my former role with Eliot Sinclair.

31 The *Natural Hazards Risk Assessment* report for 2 Ashworths Road (submitter #224) was reviewed and signed by me on 19 July 2021. This submission was part of Stream 12C, and my assessment of the submission was included in my memo prepared for that stream.

32 The following documents were reviewed and signed by me during my former role with Eliot Sinclair, and have been included with submission #266 which is part of Stream 12E. My assessment of submission #266 was included in my memo prepared for that stream:

32.1 *"Pre-Purchase Ground Contamination Assessment. 163 Johns Road, Rangiora"* dated 26 February 2018,

32.2 *"Pre-Purchase Geotechnical Desktop Report, 163 Johns Road, Rangiora"* dated 26 February 2018,

32.3 *"Pre-Purchase Ground Contamination Assessment. Preliminary Site Investigation (PSI) for 199 Johns road, Fernside, Rangiora"* dated 7 June 2019, and

32.4 *"Risk of Natural Hazards & Soil Contaminations at 163 ~ 203 Johns Rd, Rangiora"* summary letter, dated 25 November 2021.

33 To ensure I have provided a fair and unbiased review, and to minimise the risk of unintentional bias, I have committed to assessing each submission on its merits, regardless of the author, and have taken steps to mitigate any potential conflict of interest. To achieve this, I have

discussed each submission I reviewed, including the Eliot Sinclair reports that I have previously signed, with other Council engineers to reach agreement on any significant matters.

34 My brief summary statements are based on information presented in the Applicants Evidence, from mapping information shown on the Waimakariri District Council's 'Waimaps' geographical information system (GIS), and from my discussion with WDC engineers.

35 Except where I state I rely on the evidence of another person, I confirm that the issues I have reviewed and any statements that I have made in my summary are within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

Mr Christopher Paul Bacon (Servicing, Hazards)

36 I am a Chartered Professional Engineer and hold a Bachelor Degree in Civil Engineering. I have over 20 years of experience in civil engineering.

37 My summary statement has predominantly been based on modelling data shown on the Waimakariri District Council's 'Waimaps' geographical information system (GIS), much of which I was responsible for coordinating and managing, and from my discussion with other WDC engineers.

38 Although this matter relates to a District Council hearing, I have read the Code of Conduct for Expert Witnesses set out in the Environment Court's Practice Note 2023. I have complied with the Code of Conduct when making my brief summary statements. My qualifications as an expert are set out above.

39 Except where I state I rely on the evidence of another person, I confirm that the issues I have reviewed and any brief summary statements that I have made are within my area of expertise, and I have not omitted to

consider material facts known to me that might alter or detract from my expressed opinions.

Mr Jonathan Spencer Read (Green Space)

40 I hold the qualifications of Bachelor Degree in Resource Studies.

41 I have worked for 30 years in the local authority field of parks, recreation and open space planning.

Code of conduct

42 I have read the Code of Conduct for Expert Witnesses set out in the Environment Court's Practice Note 2023. I have complied with the Code of Conduct in preparing my evidence and will continue to comply with it while giving oral evidence before the Environment Court. My qualifications as an expert are set out above. Except where I state I rely on the evidence of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

SUMMARY

Mr Shane Isaac Binder (Transport)

43 My name is Shane Isaac Binder.

44 I have been asked by the Council to provide transportation evidence in relation to rezoning requests.

45 My statement of evidence addresses transportation.

Mr John Thomas Aramowicz (Servicing, hazards)

46 My name is John Thomas Aramowicz.

47 I have been asked by the Council to provide civil, hazard and geotechnical engineering evidence in relation to rezoning requests.

Mr Jonathon Spencer Read (Green Space)

48 My name is Jonathan Spencer Read.

49 I have been asked by the Council to provide Green Space evidence in relation to rezoning requests.

50 My statement of evidence addresses various submission and evidence in relation to green space matters, as requested by the Report Writer.

INVOLVEMENT WITH THE PROPOSED PLAN

Mr Shane Isaac Binder (Transport)

51 I have been involved in the PDP since March 2021, providing advice when requested on general transport rules and activity standards.

Mr John Thomas Aramowicz (Servicing, hazards)

52 I have been involved in the PDP since March 2024.

Mr Jonanthan Spencer Read (Green Space)

53 I have been involved in the PDP since 2018.

SCOPE OF EVIDENCE

54 This statement of evidence addresses matters raised by submitters in relation to transport, civil, hazards and geotechnical engineering.

55 Attachment A includes memoranda from John Aramowicz, Chris Bacon and Jon Read.

56 Attachment B includes expert transportation evidence provided by Mark Gregory (WSP).

Date: 15 July 2024

Statement of Qualification and Expertise of

Edward Jolly

Dated 18 July 2024

Qualifications and Experience

1. My full name is Edward Lewis Jolly. I am an Associate Principal and Senior Urban Designer for the architecture and design company Jasmox, based in Christchurch. I have a Bachelor's Degree (with Honours) in Landscape Architecture (BLA) from Lincoln University and a Master's Degree in Urban Design (MAUD) from the University of Westminster, U.K.
2. My experience includes over 24 years' working in urban design and landscape architecture in both the public and private sector, in both the UK and in New Zealand. I have previously provided urban design evidence and or advice for District Plan review, Environment Court Proceedings, Outline Development Plans, Notice of Requirements, Housing Accord Special Housing Area hearings, and resource consent hearings. My experience also includes 3 years as a Principal Urban Designer for Auckland Council, where I was involved in providing urban design expertise for strategic plans and in the assessment of resource consent applications.
3. My current role is lead of Urban Design and Landscape Architecture at Jasmox's office in Christchurch, although my role includes work across New Zealand. Jasmox specialises in architecture, interior design, landscape architecture, urban design and master planning. It has a history spanning 47 years across many notable local, national and international projects.
4. My most recent relevant experience includes:
 - (a) Engaged by Waimakariri District Council (**WDC**) for expert urban design advice and preparation of the Residential Character and Intensification Guidance as part of the District Plan review process;

JASMAX

Architects
Urban Designers
Landscape Architects
Interior Designers
Brand Designers

Auckland
Wellington
Christchurch
Sydney

jasmox.com

- (b) Engagement by Christchurch City Council (**CCC**) to provide expert evidence on urban design issues relating to the CCC Replacement District Plan provisions on Residential Medium Density, and the city centre Guest Accommodation and Special Purpose (Hospital) zones;
- (c) Engagement by Selwyn District Council (**SDC**) to provide expert urban design advice for the Selwyn District Plan Review, Transport Chapter Assessment;
- (d) Engagement by Queenstown Lakes District Council (QLDC) to provide expert evidence on urban design issues for the direct referral to the Environment Court hearing of the Skyline Gondola in Queenstown;
- (e) Engagement by the University of Canterbury to provide expert evidence on urban design issues relating to the CCC Replacement District Plan provisions on the Specific Purpose (Tertiary Education) zone;
- (f) Engagement by Queenstown Lakes District Council for the Housing Accord Special Housing Area hearing of the Bridesdale Farms development;
- (g) Engagement by Queenstown Lakes District Council for the urban design assessment review for both the Northlake Investments, and the Allenby Farms Outline Development Plans; and
- (h) Engagement by Auckland Transport and KiwiRail for expert urban design in regard to the Auckland City Rail Link, in the preparation of the rail and station reference design and expert evidence for the Environment Court in regard to the Notice of Requirement proceedings.

Code of Conduct

5. I confirm that I have read the Code of Conduct for Expert Witnesses as contained in the Environment Court Practice Note dated 2023. I agree to comply with this Code. The urban design advice I have given is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Memo

To: Peter Wilson

From: Ed Jolly

Date: 25/03/2024

Subject: Doncaster Development ODP UD Review

Greetings Peter

This memo outlines my initial comments in relation to the proposed Doncaster Development ODP. In general the ODP outlines a logical and efficient approach to future development. The proposal is consistent with the structure set out in Northwest Rangiora ODP. The lot layout plan is useful to understand an indicative subdivision outcome of the ODP.

My initial comments are as follows:

- The proposal provides a good contextual analysis identifying connectivity with existing surrounding neighbourhoods and relationship to wider township context.
- The internal layout is logical and will provide a good level of connectivity and wayfinding to and through the ODP site for vehicle based movement. Access into the site is off Lehmans Rd and future Parrott Rd which is consistent with the Northwest Rangiora ODP.
- It is noted that access to future properties adjacent to Lehmans Rd will be direct from Lehmans Rd. This approach is supported from an urban design perspective. When considering the Indicative Site Development Plan provided there are a number of lots on the western side of the ODP site accessed via rear lots and cul-de-sacs. The numerous rear lots are not considered good practise urban design. Larger lots with access directly off Lehmans Road will mitigate the rear lot development. The proposed ODP approach of access of Lehmans Rd is therefore supported from a urban design perspective.
- Footpaths and cycle facilities are well established within the ODP, footpaths both sides of each road (as shown in the Indicative Site Development Plan) is supported and the two cycle / footpath access points off Stratford Way and Helmore St are sufficient to provide connectivity with adjacent residential neighbourhoods when considering the infrastructure constraints of the transmission lines. It is noted that these locations are indicative, they should be firmed up for the ODP to give clarity of outcome for future development.
- It is noted that street trees are proposed in the Indicative Site Development Plan, this is supported and will assist in providing urban tree coverage. However the potential coverage is limited to the minimal street provision and open space within the ODP site. It is also noted that tree cover will be limited within the proposed local purpose reserve due to the proximity of the pylons. See below for recommendations for additional streets and openspace.
- Open space provision within the site is limited and therefore it is recommended that an additional open space is provided internally within the ODP which becomes a neighbourhood focus. The current proposed open space (local purpose reserve) is aligned to the transmission pylons along the southeast boundary of the site. In this location the open space serves as a buffer to the infrastructure development restriction and less of a targeted recreational or placemaking asset for the future community. The reserve therefore will have a reduced opportunity for use from future residents. Consequently, it is recommended that an additional open space is provided within the site to complement the reserve and provide greater amenity, greenspace and urban tree coverage. Below is an indicative location for the additional park.

Memo

To: Peter Wilson

From: Ed Jolly

Date: 12/04/2024

Subject: Momentum Development ODP_ Beach Rd, Kaiapoi_ UD Review

Greetings Peter

This memo outlines my initial comments in relation to the proposed Momentum Development ODP, Beach Road Kaiapoi. In general, the ODP outlines a logical and efficient approach to future development. The proposal is generally consistent with the structure set out in the East Kaiapoi ODP. The lot layout plans are useful to understand an indicative subdivision outcome of the ODP.

My initial comments are as follows:

Northern Area

- Collector roads seem to be different from East Kaiapoi ODP with the main 25m collector further to the east than in the ODP. There is no urban design concern for this change. It is recommended that transport provides a response.
- Lot orientation is good with majority of sites are orientated east-west making best use of morning and evening sun aspect.
- The approach of clustering higher density residential lots around the mixed use local centre and lower density further away is a good response.
- The mixed use / local retail centre is clustered around a roundabout which should be reviewed (figure 1 below). Roundabouts are generally not conducive to good pedestrian access and hence the adjacency benefits for retail will be reduced. It is also noted that this will be the busiest collector in the ODP in terms of traffic.
- An alternative (see figure 2 or similar) is recommended where the mixed use lots are clustered together on one side of the main road (or potentially over one street but not all four sides quarters of the roundabout). The local centre could also be combined with a small reserve or park that brings some of the surrounding landscape quality into the development.



Figure 1 - Proposed Local Centre



Figure 2 Potential alternative local centre

- The green link is consistent with the Kaiapoi ODP, potentially it could directly engage with the mixed use local centre as well.
- The secondary (20m) collector will be an important connection through to the Kaiapoi North School.
- An additional connection between the two ODP sites and Beach Road should be considered with council (see figure 3 below). This road link would provide improved connectivity within the area as well as to the school from future residential neighbourhoods.



Figure 3 Potential road link

South Block

- The south block is orientated well to provide east-west lots and make the most of the morning and afternoon sun aspect.
- The green boundary treatment / buffer zone around the perimeter of the site is unclear in its purpose. Potentially this space is not very usable and may result in CPTED concerns if it is accessible for pedestrians (as it will have minimal overlooking and lighting etc). The use of the buffer zone land is not very efficient.



Figure 4 Proposed layout

- It is recommended that residential lots could back on to existing adjacent residential lots and school site without the buffer zone. This would allow a more efficient utilisation of the land, potentially less roads and opportunity to reconsider the open space provision so it is more usable for the community.
- Potentially this could allow a central reserve to be developed that is more usable for the neighbourhood providing a community focus (see figure 5 below).



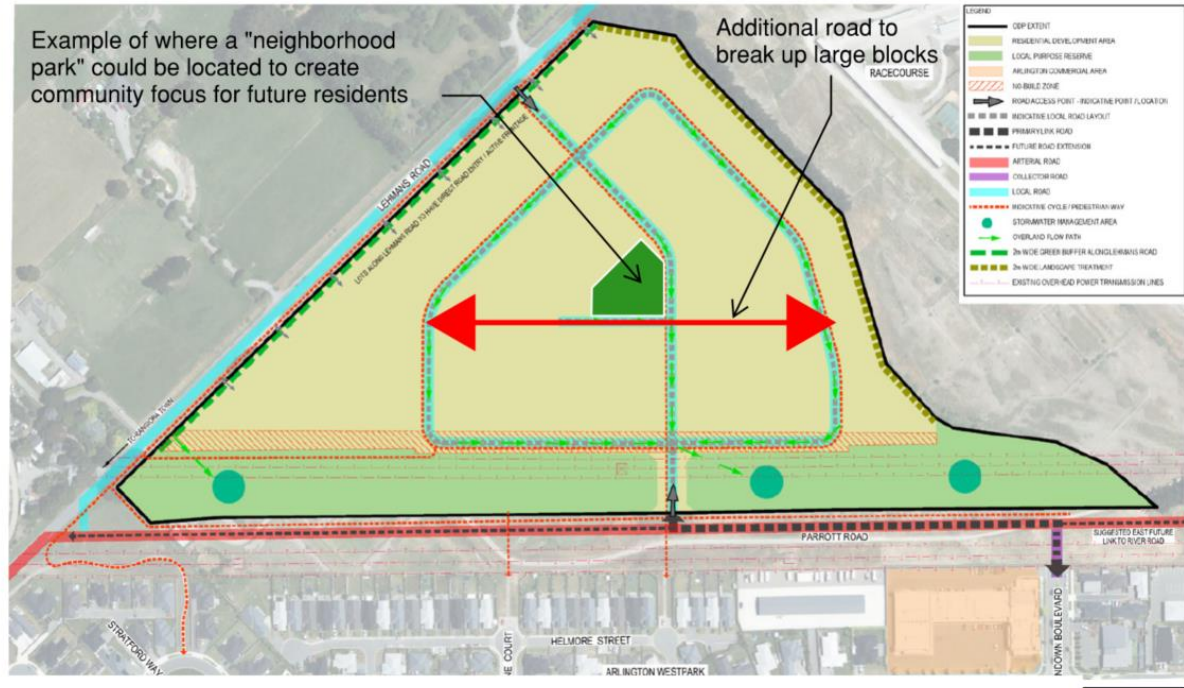
Figure 5 Potential alternative layout

- Properties along Beach Road could be accessed off Beach Road rather than an internal road. It is noted there is a current stormwater 'ditch' in this location which would need to be considered in terms of access however access off Beach Road would reinforce the future suburban character of the street with footpaths and street lighting as opposed to the existing rural layout.
- Alternatively, the front portion of the Beach Road interface could be given over to stormwater attenuation similar to the adjacent Beach Grove subdivision further east.

End.

- The street layout establishes a structure of large development blocks. These large blocks create constraints to pedestrian and cycle permeability, accessibility and wayfinding. Residential blocks of over 200-250m do not generally result in good outcomes often leading to vehicle orientated neighbourhoods. A tighter block structure will encourage greater pedestrian and cycle activity and connectivity within the neighbourhood. It is recommended that an additional street is introduced as shown in the red arrow below to provide a tighter block structure.

Outline Development Plan



- Although indicative the site development plan does indicate two sizes in lots with smaller sites located to the south and closest to existing residential neighbourhoods and larger lots towards the northern urban fringe. This approach is logical and supported from an urban design perspective.

End.

Memo

To: Peter Wilson
From: Ed Jolly
Date: 06/06/2024
Subject: Woodend Beach Road ODP_ Woodend_ UD Review

Greetings Peter

This memo outlines initial comments in relation to the proposed Woodend Beach Road ODP, Woodend. The proposed ODP is a basic layout for an area of rural activity land located between existing residential neighbourhood to the north and larger lot lifestyle lots to the southeast and Woodend Beach Road to the south. The site is not subject to an existing ODP. It is reasonable to assume that the land within the area north of Woodend Beach Rd of which this ODP occupies (in part) is appropriate for residential development.

My initial comments are as follows:

- The proposed ODP has been submitted as two variants. The basic structure is repeated with the change between the two variants being in the landuse zoning either all General Residential Zone GRZ or all Medium Density Residential Zone MRZ. From a context integration perspective, the MRZ is more appropriate as it ties into the zoning proposed in the PDP to the north of the site.
- One of the key features that runs through the site is a water course / McIntosh Stream and associated wetlands which requires restoration. From the proposed ODP drawings and aerial photography it is difficult to ascertain the exact location of the wetlands. The ODP proposes residential zoning in this area. It is recommended that this water course is enhanced and reinforced with further stormwater management area. See diagram below (figure 2)

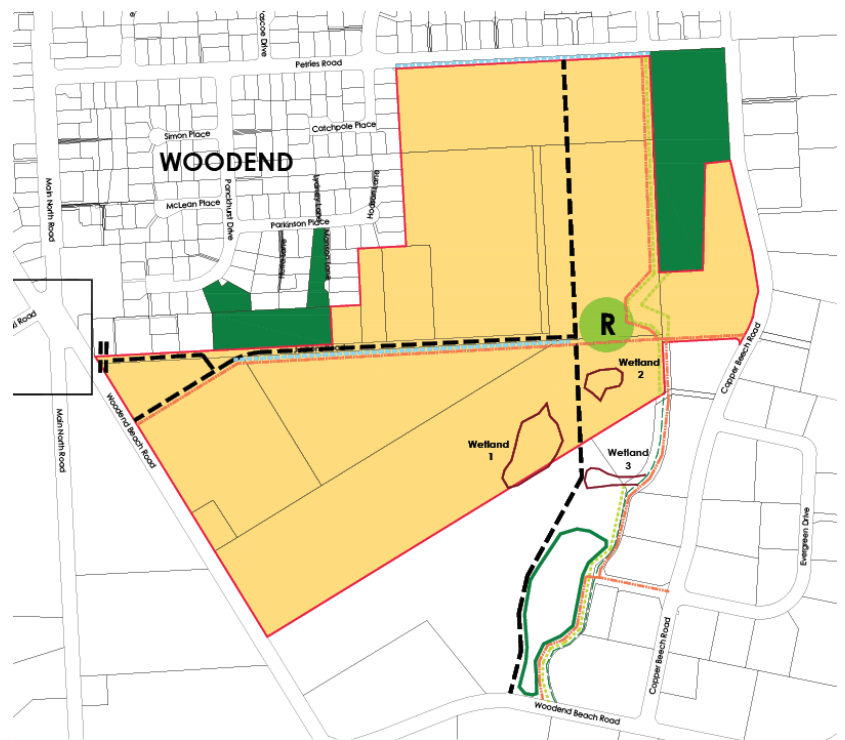


Figure 1 Proposed MRZ variant

on how land can be attributed to enhancement of Stormwater and the stream environment such that the stream environment both ecologically and for recreation purposes can be enhanced within this ODP site. Stream margins will require protective setbacks as well.

- The proposals provide very little in the way of public open space reserve. Medium density residential development will require higher demand on public open space and reserves therefore it is recommended to provide a centrally located large reserve with the site which will become a community focus and opportunity for passive recreation and play within the new neighbourhood. The alternative layout (figure 2) identifies a potential location for the reserve that will service new residential development within the ODP site. Its central location and size (approximately 1.5ha) allows it to provide access for the whole ODP site as it is within a 500m / 10minute walking distance from the majority of future homes. An alternative would be two smaller 0.75ha reserves, one located centrally in the northern area and one in the southern.

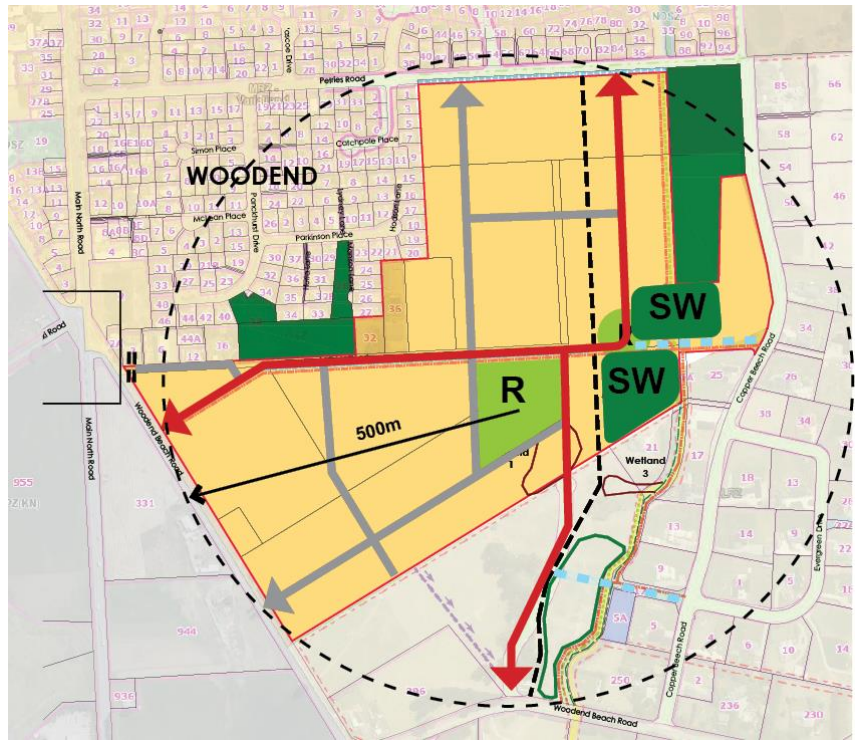


Figure 2 Alternative layout with central openspace reserve and additional stormwater aligned with water course and wetlands.

- The proposed ODP identifies 'primary roads' however in reality these should be secondary roads with Woodend Beach Road and Petries Road being the two primary roads in the area. The ODP identifies minimal secondary and local road connectivity within the ODP. It is recommended that further roads and means of connectivity are established. The diagram opposite (figure 2) provides a solution for road layout and connectivity within the site and connectivity back to the primary network. Consideration should also be given to how land is accessed and connectivity established into the site directly south of the ODP and north of Woodend Beach Road in the future.
- The pedestrian and cycle links identified in the ODP (and previously in the adjacent East Woodend ODP) are supported and will provide good connection across the stream and connectivity with the established residential areas off Copper Beach Road to the east of the site.

End.

Memo

To: Peter Wilson
From: Ed Jolly
Date: 07/06/2024
Subject: Winter and Sons, Main North Road_ South Kaiapoi_ UD Review

Greetings Peter

This memo outlines initial comments in relation to the proposed Winter and Sons subdivision proposal, Main North road Kaiapoi. The proposal is a subdivision layout for the area of rural activity land located between Main North Road, Main Trunk Railway, Kaikainui Stream and Courtenay Stream. The site is not subject to an existing ODP and is zoned rural/lifestyle in the operative and PDP respectively. It is reasonable to assume that the land within the site is appropriate for residential development as an extension of Kaiapoi township.

My initial comments are as follows:

- The proposed layout of the streets is logical and will provide good legibility and wayfinding for future residents and visitors. However from the drawing provided (figure 1 opposite) there seems to be little street hierarchy and all streets seem to be of the same dimension. This lack of hierarchy may potentially lead to undesirable traffic on local access streets as cut throughs. Potentially a simple loop road (based on the proposed street layout geometry) could be introduced which connects at both ends to Main North Road. The road would be wider than the other local roads reflecting its traffic role. It would provide the main structure to movement and access for the local roads within the site. Refer to Figure 2 for how this layout could be realised on the site. The southern connection onto Main North Road should be reconsidered as proposed it exits onto the existing bus stop and also creates a 4 way intersection across Main North Road which would require traffic management.



Figure 3 Proposed Plan

- The proposal does not identify any cycleways or key pedestrian routes which would provide benefit including connectivity within the site and with adjacent destinations such as Kaiapoi township. Figure 2 below shows a potential solution for the movement structure for the site and connectivity with its surrounding context.
- The two streams are key features adjacent to the site but have not been integrated into the proposal. There is opportunity for the neighbourhood to engage with these features through a series of interconnected walking and cycling routes that provide a unique feature of the development.

- The proposal provides a local reserve located in the protrusion of land to the north of the site between Kaikainui Stream and the main rail line. This is a poor location for open space as it is on the periphery of the site, it is hard to get to and is located through a cul-de-sac. The location of reserve openspace should be reconsidered in the proposal. Figure 2 illustrates an alternative where two openspace reserves are located centrally within the residential development. These locations will provide common openspace and potential to be a community gathering space and focus for the neighbourhood. They also have the potential to connect back through to the walking and cycling routes as previously identified overall creating a network of openspace and recreational opportunities for the site.

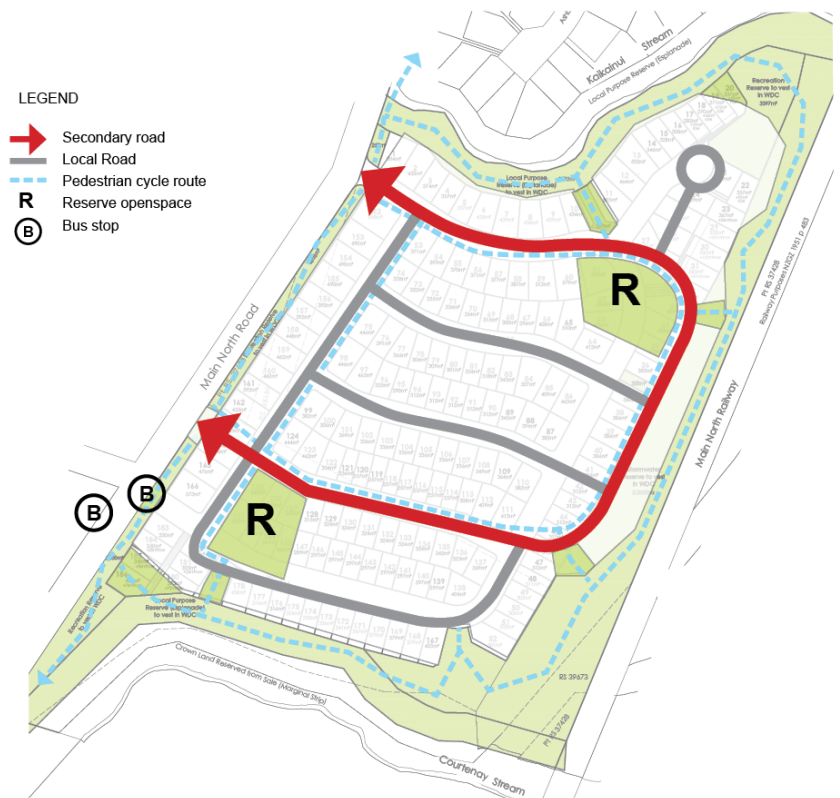


Figure 4 Potential alternative layout

- The proposed blocks will allow for a mixture of lot sizes and density consistent with the MRZ. Further north south lanes between the local streets could be introduced to provide access to smaller lots as required.
- The proposal includes a number of rear lots. These are not considered a great outcome for greenfield development particularly when they are attached to the end of a cul-de-sac as in the proposal. They don't provide good street address and can result in conflicts between vehicles and pedestrians. The rear lot approach should be reconsidered. Figure 2 illustrates a layout where rear lots are not required. A short cul-de-sac is retained in the northeast area and further design development will be required to avoid rear lot development in this area. The esplanade reserve could be increased in depth and larger lots could be used in this area for example.
- The proposal provides a variety of reserve setbacks (stormwater and recreational) as previously identified these provide great opportunity for walking and cycling opportunities as well as ecological enhancement along the stream edges. The stream setbacks should be generous enough to achieve appropriate ecological enhancement opportunities. The setback from Main North Road is consistent with established neighbourhoods north of Kaikainui Stream and therefore is supported as an approach. Again maximising the opportunity by providing walking and cycling routes connecting along the road edge is recommended and also to provide good connection with the bus stops on Main North Road.

End.

Memo

To: Peter Wilson

From: Ed Jolly

Date: 08/07/2024

Subject: Stokes, Gresson Road, Ravenswood_ Woodend_ UD Review

Greetings Peter

This memo outlines initial urban design comments in relation to the proposed Stokes Outline Development Plan, Gressons Road, Ravenswood. The proposal is for future development of the area of rural activity land located between Ravenswood and the Waikuku settlement adjacent to the Main North Road to the east and Gressons Rd to the North. The site is not subject to an existing ODP and is zoned rural in the operative and PDP.

My initial comments are as follows:

- The ODP is effectively a greenfield development that bridges between the Ravenswood and the Waikuku settlement. From an urban design perspective this could be a useful transition of residential development from Ravenswood Town Centre. For example medium density residential adjacent to Ravenswood Town Centre, suburban density residential to the north of the proposed ODP site and then the low density of the rural residential lifestyle within Waikuku. However it is recognised this may also result in loss of legibility and character of Waikuku as a stand-alone settlement with rural pastoral land separating it from the urbanised fringe of Ravenswood.



Figure 5 Proposed Plan in context with surrounding settlements.

- From a connectivity perspective the proposed layout of the north/south primary streets will provide good legible connection to the emerging Ravenswood Town Centre, a key focus for retail and employment in the area. These connections also align with streets/vehicle access routes within the Waikuku settlement. The connectivity into Ravenswood provides potential alternative vehicle routes to State Highway 1 as well as cycle and pedestrian connectivity opportunities. It is noted that an area of stormwater management has been developed with the Ravenswood ODP between the future town centre and the Sparks site. Therefore the success of stitching the two ODPs together with these north/south connections is reliant on changes to the layout of the stormwater management area within the Ravenswood site.
- The overall street hierarchy proposed with primary connectors supported by secondary streets at regular intervals sets up a logical and effective grid for development which will promote good legibility and wayfinding internally within the ODP. It is noted that from the 'sketch' plans provided (figures 1&2) that due to lack of a

legend to the plans and clear description the extents of the street network not completely clear. It is assumed that the black dashed lines are primary routes, the red dashed lines are secondary streets and the dotted yellow/brown lines are pedestrian and cycle routes. The diagram also illustrates where local streets and lanes will be located within each block in thick black solid and dashed lines (figure 3).

- In addition to the network of north-south and east-west streets proposed there are a number of pedestrian and cycle routes that follow riparian corridors, green links and openspaces. The result is a potential high quality active movement opportunities for future residents.
- In terms of the water courses identified in the proposed ODP (light and mid blue colours) it is unclear if these are daylighted streams, drainage 'swales' or culverted stormwater diversions. Hence the quality of the proposed 'blue-green corridors' is uncertain. It is also unclear in terms of proposed setbacks if they are in addition to councils' standards and wide enough to result in ecological enhancement and allow pedestrian and cycle paths.
- The proposal provides two public openspace reserves as well as 'green space' setback from the state highway. The larger 3.0 Ha centrally located reserve will provide a focus for future community residents. It is well located and benefits from connecting to the proposed green corridor and link. The smaller reserve is an elongated space which straddles the green corridor. This space could be improved and planned such that it has a more useable footprint, a more regular shape rather than the proposed lineal space. The green space adjacent to the state highway is generous and has the potential to provide passive recreational opportunities for future residents as well as stormwater management. Limited detail is provided in the ODP in terms of how activity is planned for this space. It is noted that the



Figure 2 Proposed layout

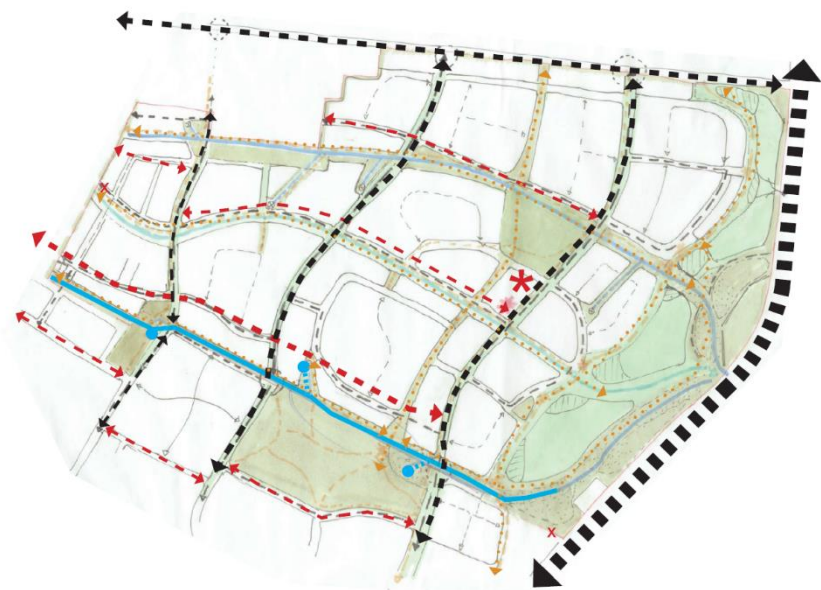


Figure 3 Proposed Street Hierarchy

- The ODP also identifies a future 'Community Hub' although limited detail is provided in terms of what this activity is, it's proposed location adjacent to the larger open space is well considered reinforcing the openspace as a potential future community focus.
- The proposed ODP does not provide much clarity on future lot orientation or size. As discussed above the site has the potential to provide a transition from the centre of Ravenswood north to Waikuku. Hence there is an

opportunity to provide a range of lots sizes. Lots consistent with medium density 200-300m² could be proposed along the southern boundary within walking distance of Ravenswood and then more generous lots in the order of 500-600m² to the north of the site (aligning with the GRZ and SZ). It is noted that if the approach was undertaken it would be important to provide additional open space to enable medium density within the blocks surrounding these lots within the southern half of the site.

End.

Memo

To: Peter Wilson

From: Ed Jolly

Date: 10/07/2024

Subject: East Rangiora_ Bellgrove Site UD Review and updates

Greetings Peter

This memo outlines initial urban design comments for the East Rangiora ODP and the proposed Bellgrove amendments. It also provides some initial design considerations for further amendments to the ODP to enable access and future development on the Kelly site (north side of the Cam / Ruataniwha River).

The area is subject to an existing ODP (Figure 1) and the amendments proposed by Bellgrove to include their land within the extents of the ODP.

The key issue with the current ODP is that it does not enable access into the Kelly site on the eastern side of the Cam / Ruataniwha River as access is restricted for traffic safety reasons from the Rangiora – Woodend Road. A portion of the Kelly site has been identified for future development in the ODP (figure 1) but is not located at a sufficient distance from the curve in the road to allow a safe entry point.

Two potential solutions have been explored, the first is to extend the future development area within the ODP on the Kelly site further away from the curve in the road to allow a safe entry location and the second is to provide access over the Cam / Ruataniwha River into the Kelly site. It is noted with the



Figure 6 Existing ODP

later option relies on the development of the Bellgrove land on the western side of the Cam / Ruataniwha River to be developed first such that a connection can be made that links up with the rest of Rangioras' street network.

Jasmax has prepared a sketch plan (figure 2) to assist the preparation of potential amendments to the ODP and councils recommendations for this area that explores these two options.

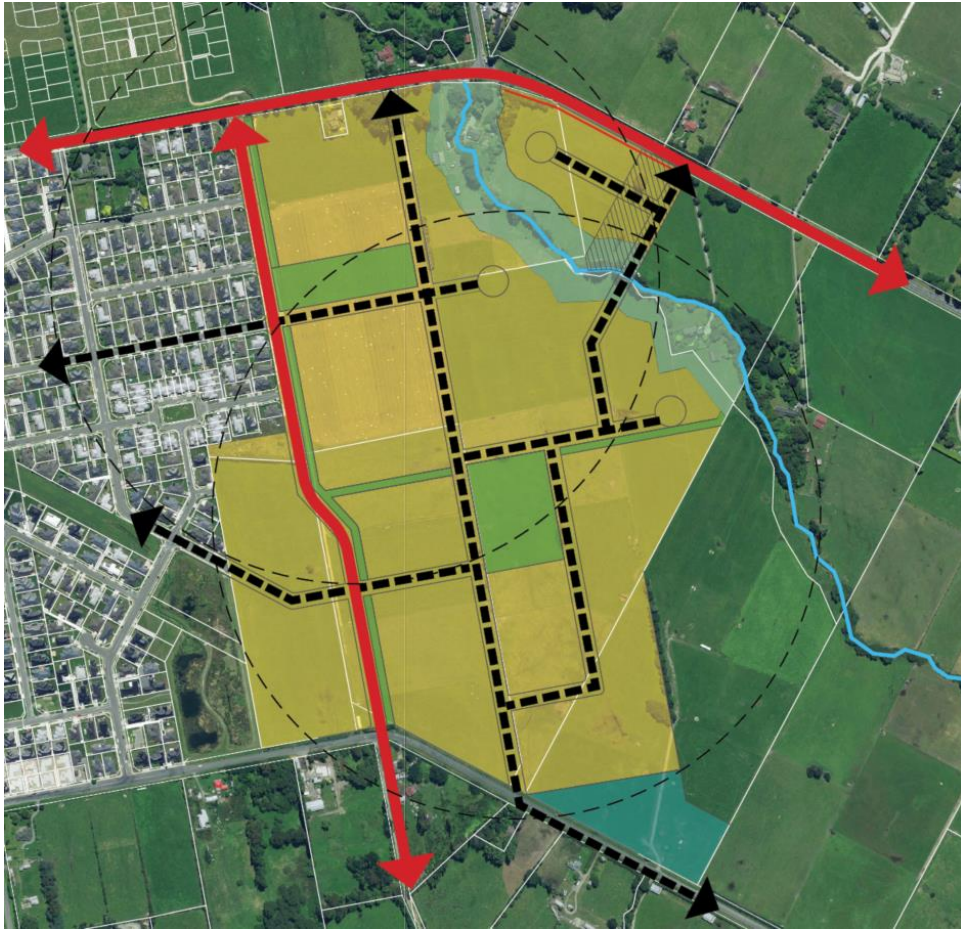


Figure 7 Sketch plan of potential ODP

The key elements of the sketch plan are:

- Extend the boundary of the ODP further along the Rangiora – Woodend Road- shown in the hatched area to allow safe access into the Kelly site.
- Provide a street connection along the boundary of the extended ODP area within the Kelly site to provide a single point of entry from the Rangiora – Woodend Road and a natural separation with the remaining rural zoned Kelly site.
- Branching off the access street a secondary street is then proposed to align parallel to the Rangiora – Woodend Road enabling access to future residential developments.
- The access street can also then provide connection over the Cam / Ruataniwha River and into the Bellgrove site allowing neighbourhood connectivity and access to community facilities such as green spaces and parks.
- A widening of the riparian corridor setback from the Cam / Ruataniwha River to 40m either side within the ODP area to enable habitat creation and restoration, stormwater management and recreation opportunities with walking and cycling links.
- Maintaining the key primary north-south link (shown in red) within the western side of the ODP through the Bellgrove site.
- Realignment of the secondary links (shown in black) to both stitch the ODP into the existing established neighbourhoods further westward but also to reduce potential undesirable traffic outcomes and rat-running through the Bellgrove site, via the new connection over the Cam / Ruataniwha River and through the Kelly land onto the Rangiora – Woodend Road.

- Extension of east-west green links across the extent of the Bellgrove site to connect up with potential pedestrian and cycle links within the riparian corridor.
- Provide two open space parks (approx. 1.0-1.5ha in size) to provide amenities such as play, parks, social gathering spaces and informal recreation spaces for future residents.

End.

Memo

To: Peter Wilson

From: Ed Jolly

Date: 10/07/2024

Subject: Northeast Rangiora_ UD Review

Greetings Peter

This memo outlines initial urban design comments and design for the Northeast Rangiora ODP and in particular the two areas of land either side of West Belt Road between River Road and the Rangiora Racecourse access road (Racecourse Road) in the northeastern extent of Rangiora. The site is zoned urban Res 4b in the operative plan and Large Lot Residential (LLRZ) / General Residential (GRZO) in the proposed plan to enable an ODP to be prepared and give direction to future development.

Jasmax has prepared a sketch plan to assist the preparation of an ODP for this area (figure 1 below)

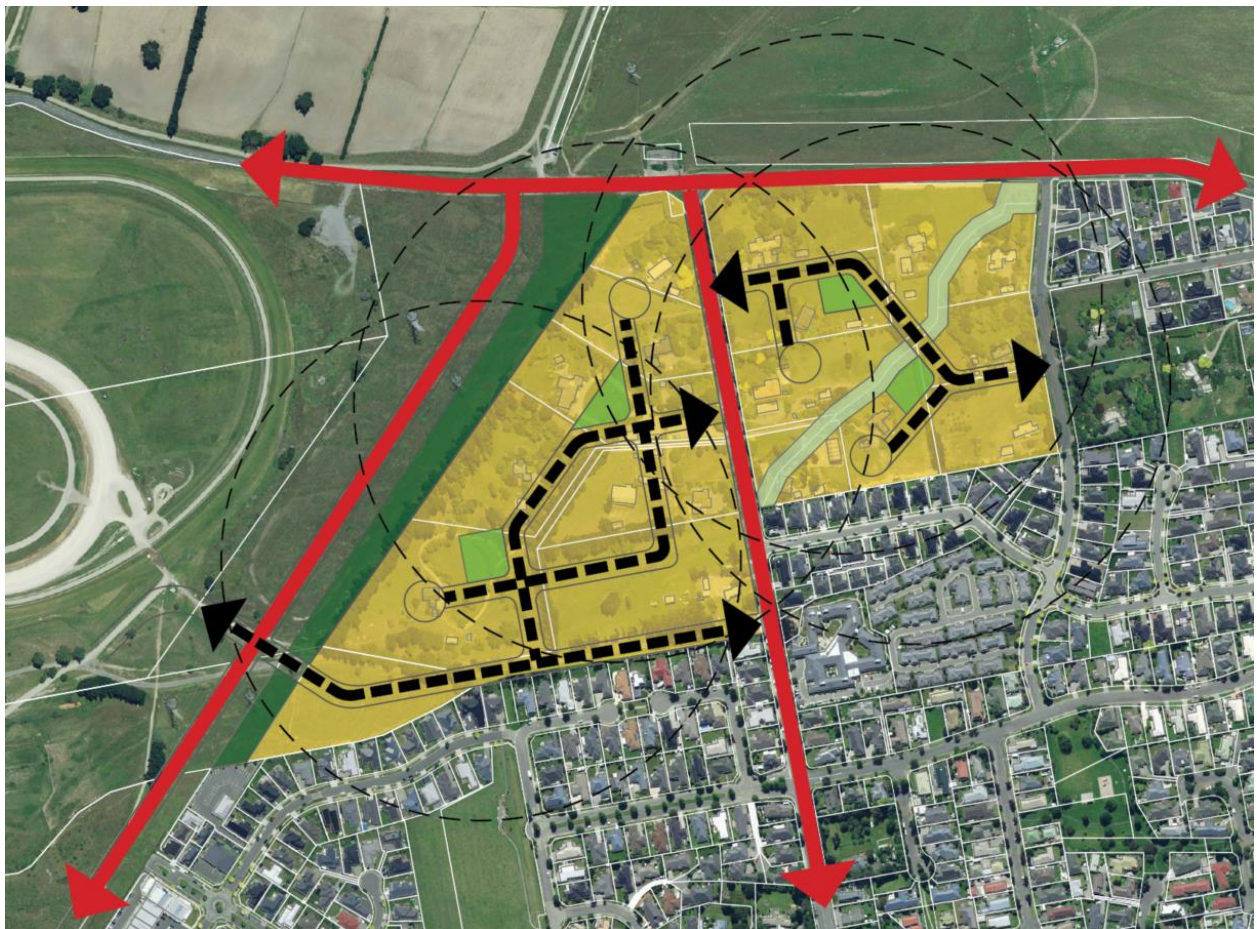


Figure 8 Sketch plan of potential ODP

The key elements of the ODP are:

- Extend Parrott Road northward to meet up with River Road which runs the length of the northern boundary of Rangiora.
- Formalise the vehicle access route to the Rangiora Racecourse between West Belt Road and the extended Parrott Road to provide additional access for future residential development within the ODP from the south, maintain access to the racecourse and to provide additional east-west movement opportunities for the wider area.
- Retain and enhance existing shelter and provide an additional green buffer strip between future residential development and the pylons along the alignment of Parrott Road.
- Provide secondary movement structure within the two areas, streets that will provide access to new development while maintaining access to existing and providing east-west connections to West Belt Road and Ballarat Road.
- Off-set connections onto West Belt Road to minimise rat-running through the residential streets.
- Locations for openspaces, to provide amenities such as play, parks, social gathering spaces and informal recreation spaces for future residents. Two 'pocket park' sized green spaces (approx 0.2ha) have been proposed in each area separated to provide walkable access to at least one open space for all future residents (within 250m or a 2-3min walk).
- Maintain the stormwater management corridor within the eastern area.

End.

Memo

To: Peter Wilson

From: Ed Jolly

Date: 11/07/2024

Subject: North Woodend_ Chinnerys Road_ UD Review

Greetings Peter

This memo outlines initial urban design comments and design for the North Woodend Chinnerys Road ODP and in particular the two sites to the south of Chinnerys Road between the Grange View Reserve and Woodglen Drive. The site is zoned Residential 4b in the operative plan and Large Lot Residential (LLRZ) / General Residential (GRZO) in the proposed plan to enable an ODP to be prepared and give direction to future development.

Jasmax has prepared a sketch plan to assist the preparation of an ODP for this area (figure 1 below)



Figure 9 Sketch plan of potential ODP

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Urban Designers
Landscape Architects
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The key elements of the ODP are:

- Maintain the extent of the Grange View Reserve and provide a widened and enhance entry into the ODP south from the park. This is to provide protection to established vegetation in this location and improve the connectivity, pedestrian and cycle routes between future residential development and the park which is a major recreational and social asset for the community.
- Introduce a new street through the northern block to provide access and east-west connectivity for future residential development. The street is located to avoid existing dwelling such that staged development can occur. The street is aligned to minimise loss of established vegetation although no data on the quality and importance of individual trees was available at the time of preparing this memo.
- Connect the existing Grange View Lane with the new east-west street connection providing options for access to development sites and pedestrian access to potential future recreational opportunities within the stormwater management area associated with the Ravenswood development.
- Enable future properties to front onto the Grange View Reserve providing enhanced CPTED benefits and social engagement outcomes.
- Provide three cul-de-sacs off Chinnerys Road to the eastern block to enable subdivision of land while maintaining opportunities to retain existing dwellings. The area is not sufficiently deep to provide a local street parallel to Chinnerys Road within this block.
- Maintain the stormwater management area / open culvert within the eastern block connecting with features associated with the Ravenswood developments.

End.

Memo

To: Peter Wilson
From: Ed Jolly
Date: 12/07/2024
Subject: West Rangiora ODP_ Rangiora_ UD Review

Greetings Peter

This memo outlines my initial comments in relation to the West Rangiora ODP. The ODP extends along the western extent of Rangiora between Oxford Road and the South Brook. The site is zoned Rural in the Operative District Plan and has been identified as a future Development Area in the Proposed District Plan. An ODP has been developed for this area (figure 1) which outlines a logical and efficient approach to future development. This memo focuses on additional improvements and considerations from an urban design perspective.

My initial comments are as follows:

- The proposed primary road structure (in red) provides a logical north-south spine running the length of the area. It provides connection between the existing key east-west movement routes of Oxford Road and Johns Road. It is noted that Lehmans Road is also an important North South connector and interface with the rural zone on the edge of this area.
- The secondary movement (black dashed lines) connect the central primary route eastwards towards established neighbourhoods in western Rangiora. However these secondary connections do not connect west to Lehmans Road which would allow future residential development west of the central spine and good integration into the movement network. It is therefore recommended that the secondary movement streets extent to Lehmans Road as shown in Figure 2 below.

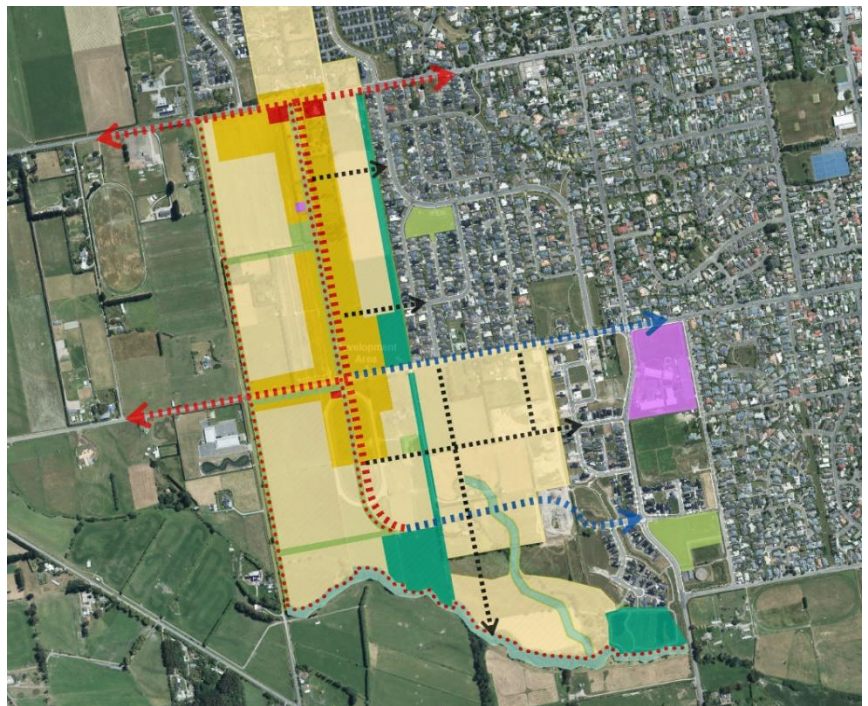


Figure 10 Proposed ODP

- Green space provision in the ODP is relatively limited and sparsely distributed through the area. The provision of open spaces is considered minimal both in terms of quantity and size. It is recommended that more substantial open space provision is provided within the ODP. Figure 2 below illustrates potential improvements to the ODP in terms of allocation of openspace, size and distribution. Note the dashed circles in the diagram represent

walking catchments of 400m or a 5 minute walk suitable for medium to large openspace. The key recommendations for additional openspace provision include:

- 1) A large recreational space in the northern extent of the ODP between Oxford Road and the first east-west secondary road to replace the proposed pocket park adjacent to the spine road. It is also recommended that the community facility (purple square) is better integrated with the open space rather than separated by residential development.
- 2) A larger openspace in the southwest quadrant to replace the pocket park in this location, allowing greater coverage and access for future residential development.
- 3) An additional openspace on the important east west secondary street connection between Te Matauru Primary School and Lehmans Road.

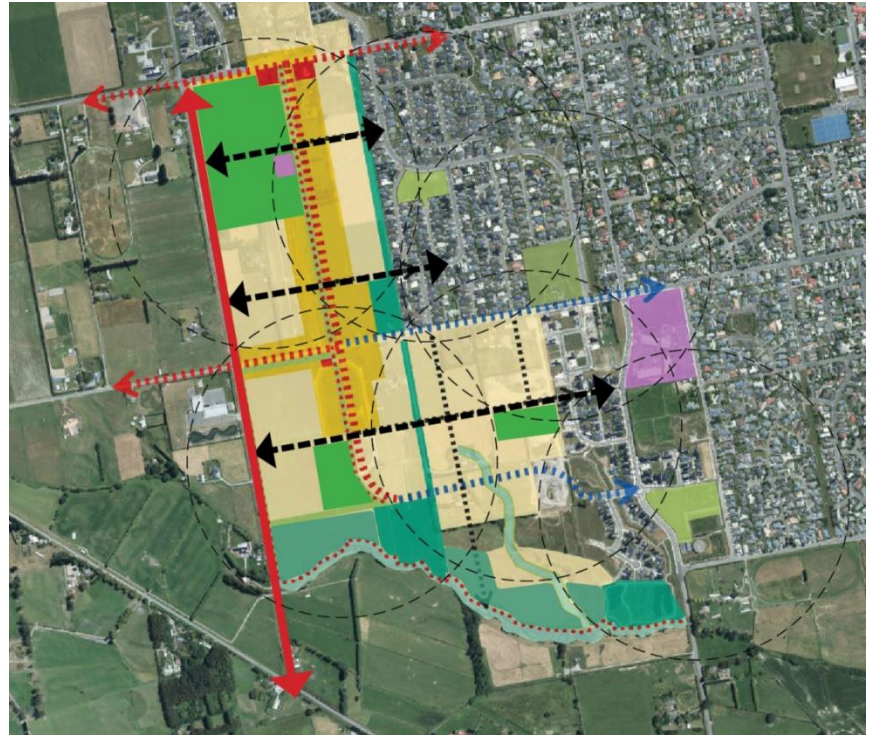


Figure 11 Recommended amendments to ODP

- In terms of stormwater management it was considered in discussion with council that the provisions along the southern edge of the ODP adjacent to South Brook are expanded and connected to form a continuous management area.

End.

Requested advice on Steve Higgs (Kaiapoi) open space rezoning request



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Memo

To: Peter Wilson
From: Ed Jolly
Date: 16/04/2024
Subject: Sparks Development ODP_ Boys Rd, Rangiora_ UD Review

Greetings Peter

This memo outlines my initial comments in relation to the proposed Sparks Development ODP, Boys Rd Rangiora. In general the ODP outlines a logical and efficient approach to future development. The proposal is consistent with the structure set out in Southeast Rangiora ODP (**SER ODP**) as it relates to the proposal north of Boys Road. The proposal extends substantially to the south of Boys Road which is not consistent with the SER ODP. The proposed ODP does not provide a lot layout plan which would be useful to understand an indicative subdivision outcome of the ODP.

My initial comments are as follows:

North of Sparks Road

- The proposed primary road is consistent with the SER ODP providing north south connection across the North Brook. This will provide some connectivity between adjacent neighbourhoods.
- However the secondary collector which is identified in the SER ODP also crossing the North Brook is absent in the proposal (shown as the red arrow in figure 1 below). Limiting the connectivity over the North Brook will potentially reduce the overall integration of future residential neighbourhoods. The location of the secondary collector in the SER ODP is in a logical location providing both east-west and north-south connectivity over the North Brook. Benefits of this secondary crossing include vehicular access alongside walking and cycling connectivity.
- The proposal introduces a 'small commercial node' which is inconsistent with the SER ODP. However from an urban design perspective this node which could consist of community facilities or neighbourhood shops could potentially play an important role in future community cohesion. It is recommended that consideration is given to its proximity in conjunction with the proposed open space reserve further to the south. The two if collocated together could potentially be a stronger community focus within the area.
- There are a number of stormwater management areas within the proposal. Their locations are consistent with the SER ODP along Boys Road and could provide a gateway landscape feature to the future neighbourhood.
- The concept plan shows two cul-de-sac heads within a large block to the eastern side of the proposal. The blocks dimensions are unclear however the scale is significant and will not

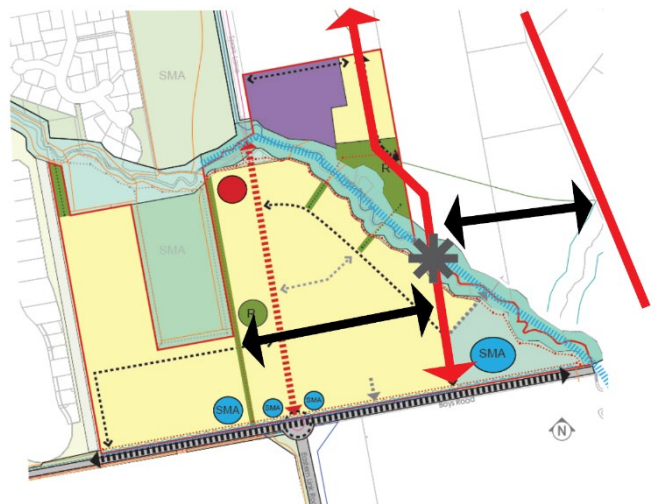


Figure 1 Additional North Brook crossing and improved connectivity with wider SER ODP

promote good walking and cycling through the block. It is recommended that the cul-de-sacs are joined to create a through road with traffic calming measures. This will allow greater pedestrian access and promote healthy active lifestyles.

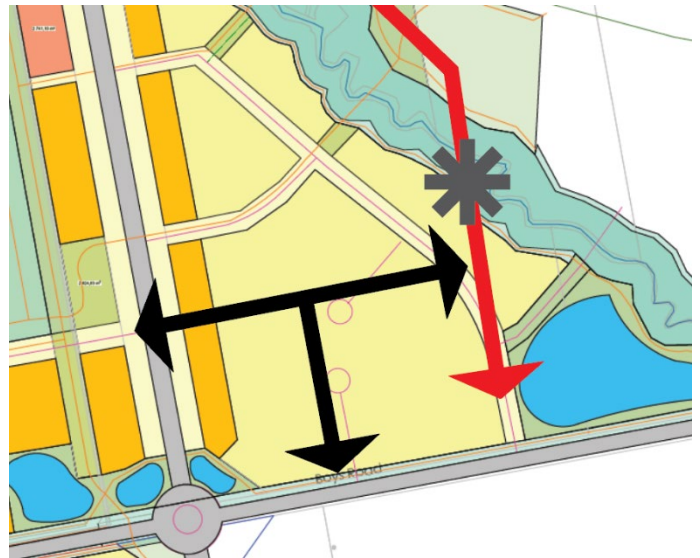


Figure 2 Connecting up cul-de-sacs with secondary connectors.

South of Sparks Road

The Proposed ODP south of Boys Road is outside the extent of the SER ODP. It is understood that the Eastern Link Road is currently in the LTP for consultation. For the purposes of this review it is assumed that the road is an element of the baseline.

- The proposal adopts a curvilinear approach to the street layout based on a loop starting and finishing on the Eastern Link Road. It is assumed that this approach was potentially taken to divert movement away from the rail line. However the curvilinear structure is an inconsistent approach when compared with the majority of the layout of Rangiora which is predominantly set out in variations of an orthogonal grid. A grid could also be adopted for this site which would provide greater legibility and connectivity with adjacent areas but also avoid additional rail crossings.
- The primary connectivity of the Eastern Link Road over Boys Road makes logical sense connecting the Northern and Southern portions of the proposed ODP. However due to the curvilinear approach to the loop road an opportunity to also connect the secondary road over Boys Rd has not been proposed. It is recommended that this secondary connection is considered with an additional intersection (rather than two separated tee intersections) this approach will increase the connectivity further between the north and south of Boys Road providing direct access.
- The railway line provides a barrier to connectivity east-west and restricts connectivity between future neighbourhoods in the proposed ODP with established neighbourhoods in Southbrook. The proposed shared cycle and pedestrian pathway which connects east-west is therefore supported and a safe crossing over the rail line is assumed part of the ODP development. The pathway will be an important connection between the Southbrook community including the Southbrook School and Rangiora New Life School and future neighbourhoods within the proposed ODP area.

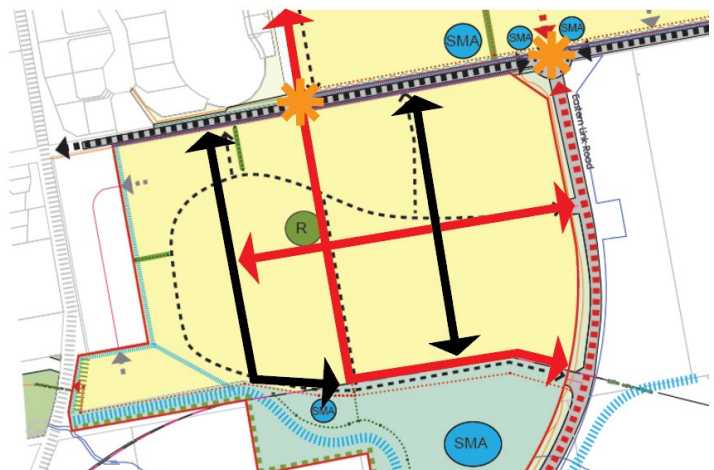


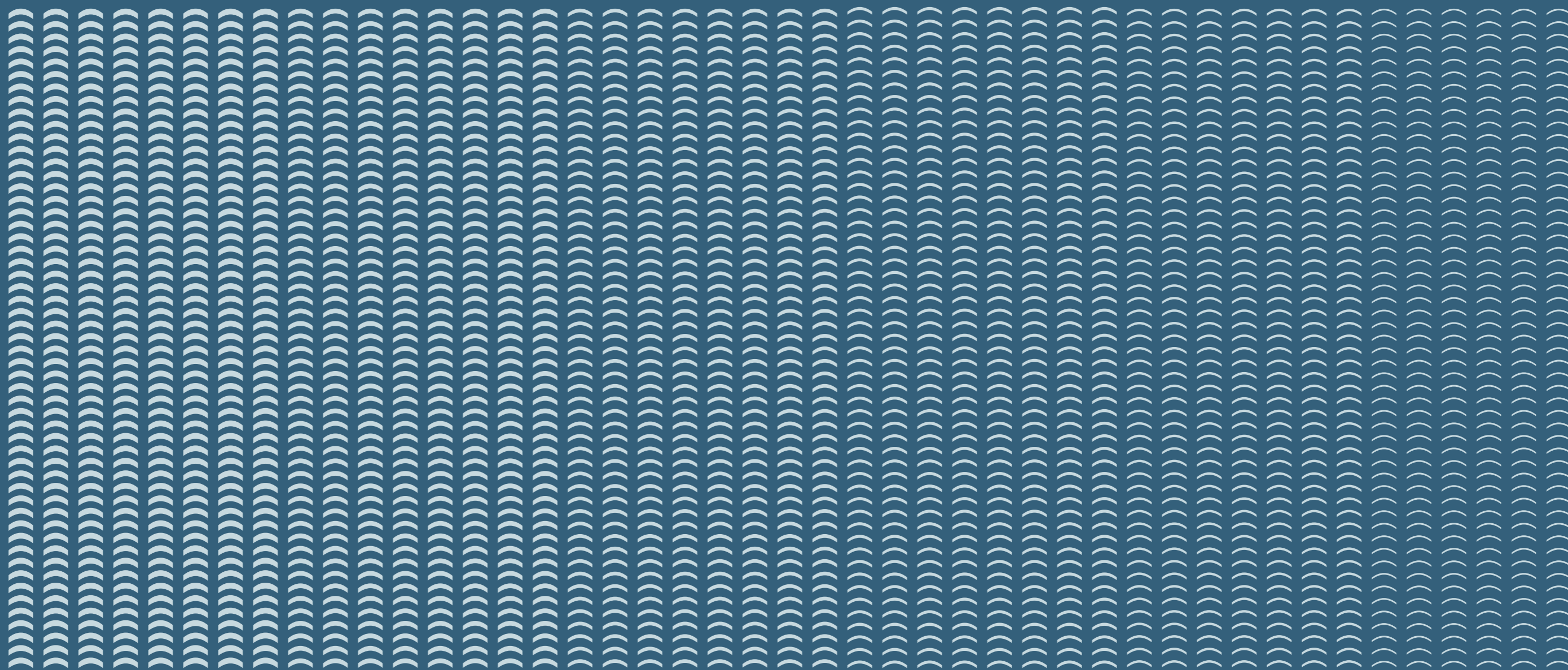
Figure 3 Potential orthogonal layout with additional connection over Boys Road

- A large proportion of site given over to stormwater management area. These areas will be important to manage stormwater but also to provide a porous edge to the urban fringe of Rangiora particularly when considering the strong edge created by the Eastern Link Road.
- The adjacent biodiversity area although supported seems hemmed in a corner that limits it's potential. Potentially it could be integrated with the SMA and form a much larger element within the proposed ODP.
- The light industrial area in the southwestern corner of the site seems isolated form other landuse activities. It is also contained within an irregular jagged property boundary and a residential property between the rail line and th proposed ODP. This may lead to difficult subdivision layout and sensitivity issues between uses. It is unclear how this site will be accessed and connected to established similar uses in the future.

End.

Brick Klin Lane ODP extension

Report



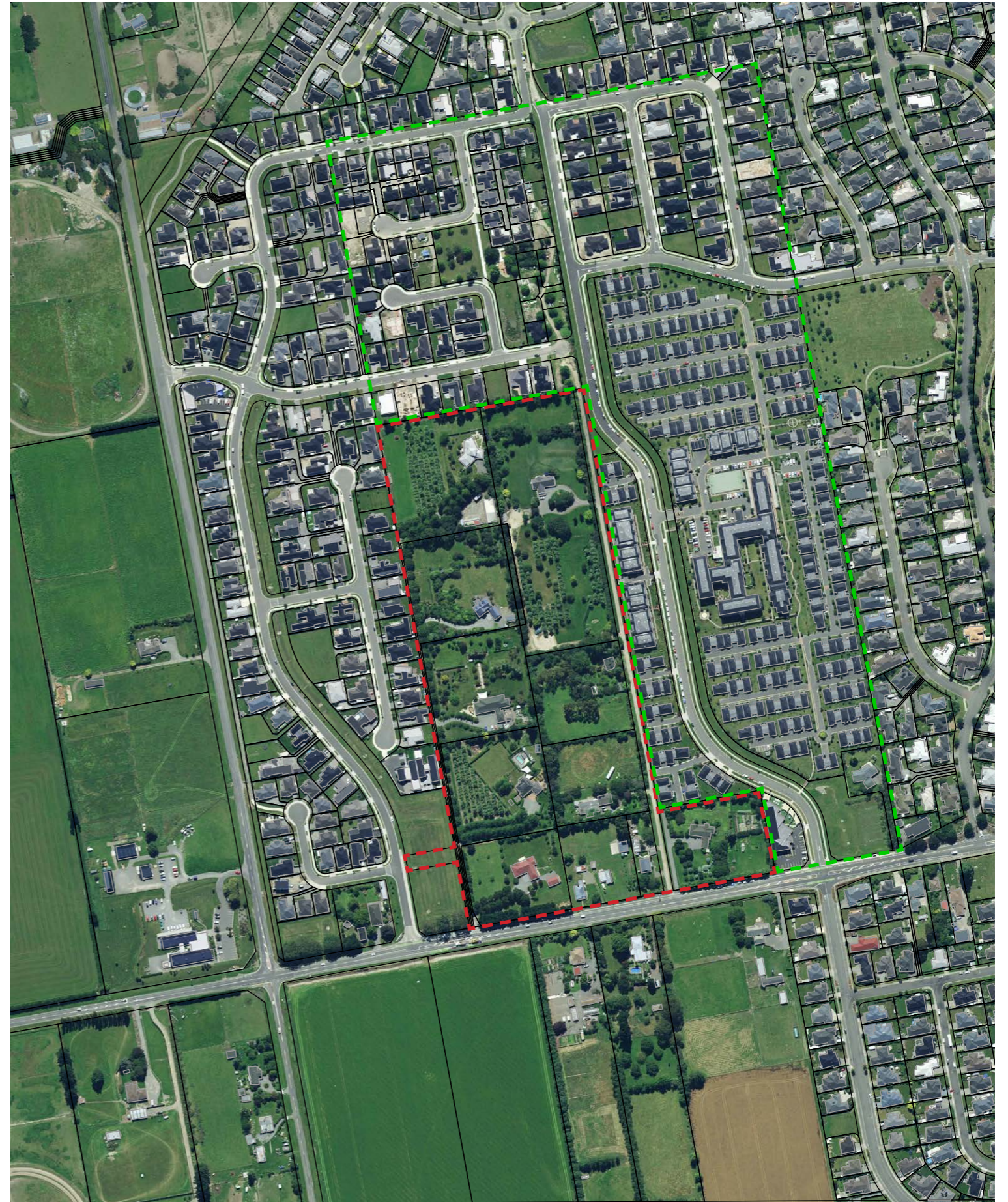
Brief

The Brief for the extension of the Oxford Road , West Rangiora ODP includes:

- Respond to submitters proposal for 70 Oxford Rd
- Minimise / rationalise vehicle crossings/driveways from Oxford Road
- Consider integration with existing Brick Kiln Rd
- Integrate latest thinking stormwater management planning
- Provide effective access to properties enabling landuse development
- Consider provision and location of open space within new ODP

Legend

- Operative ODP scope
- Extension ODP scope

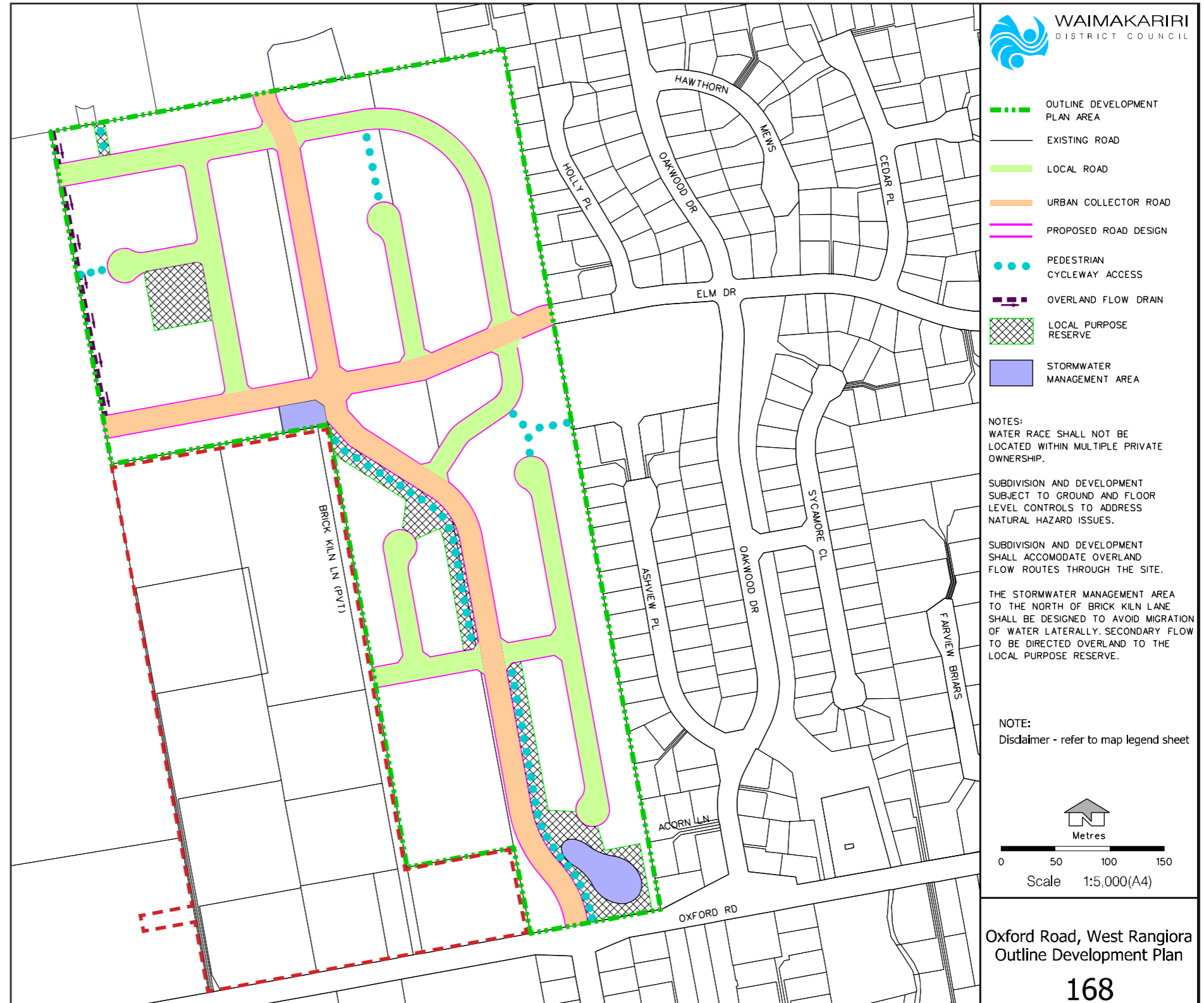


Oxford Road, West Rangiora ODP

The diagram opposite is the operative district plan
Oxford Road, West Rangiora ODP

Legend

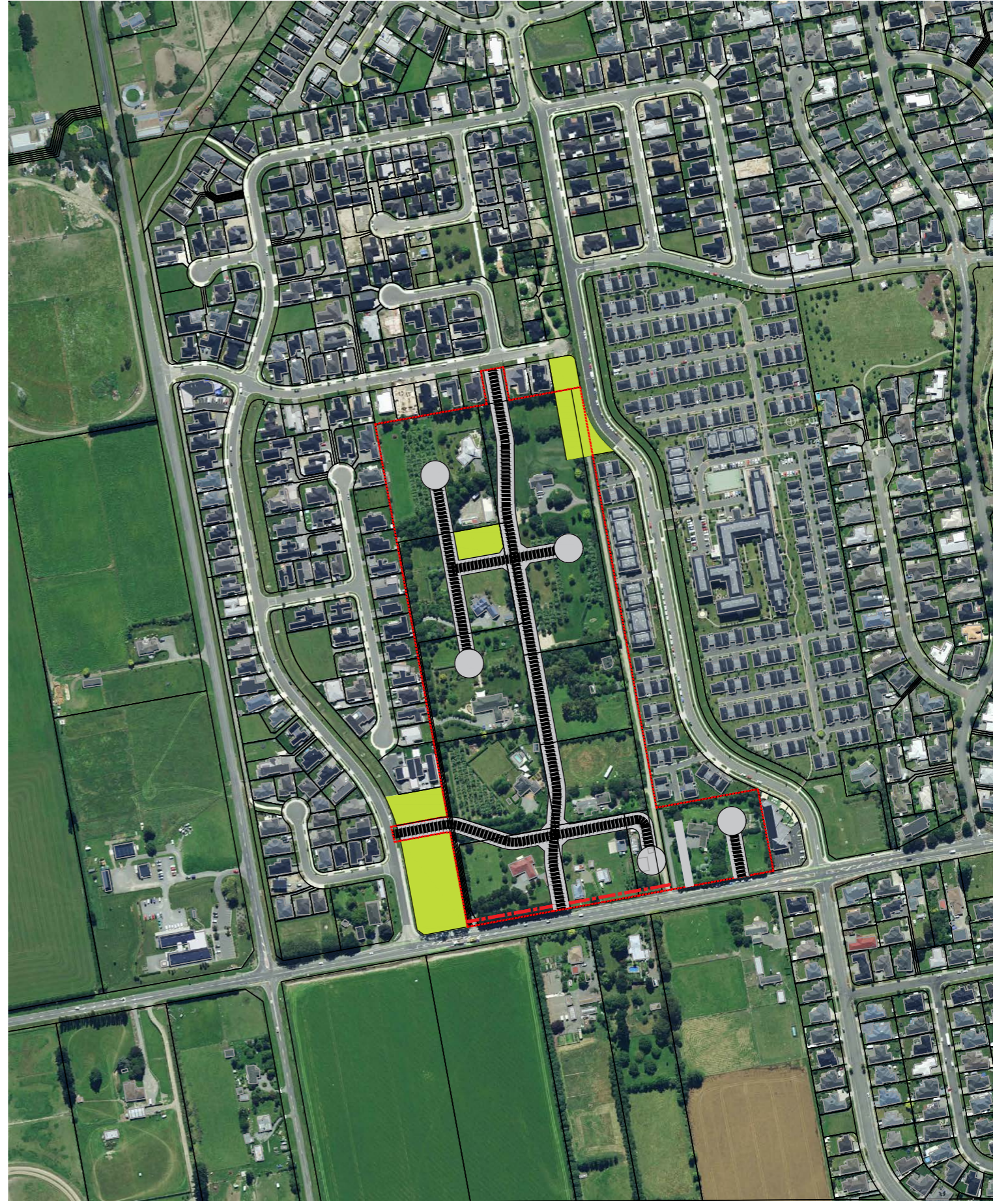
- - - Operative ODP scope
- - - Extension scope



Approach 1

Spine approach through providing north-south access through the middle of the ODP site.






- Distributes vehicle access off Oxford Road more evenly
- 70 Oxford Road remains as per the consent
- Road connection through exiting Reserve to adjoin Westpark Boulevard opposite Brantholme Place.
- Utilises vacant lot 7 on Chatsworth Ave to exit
- Additional reserve space to connect two reserves on corner of Chatsworth Ave and Charles Upham Drive
- One central neighbourhood reserve within the BKL ODP



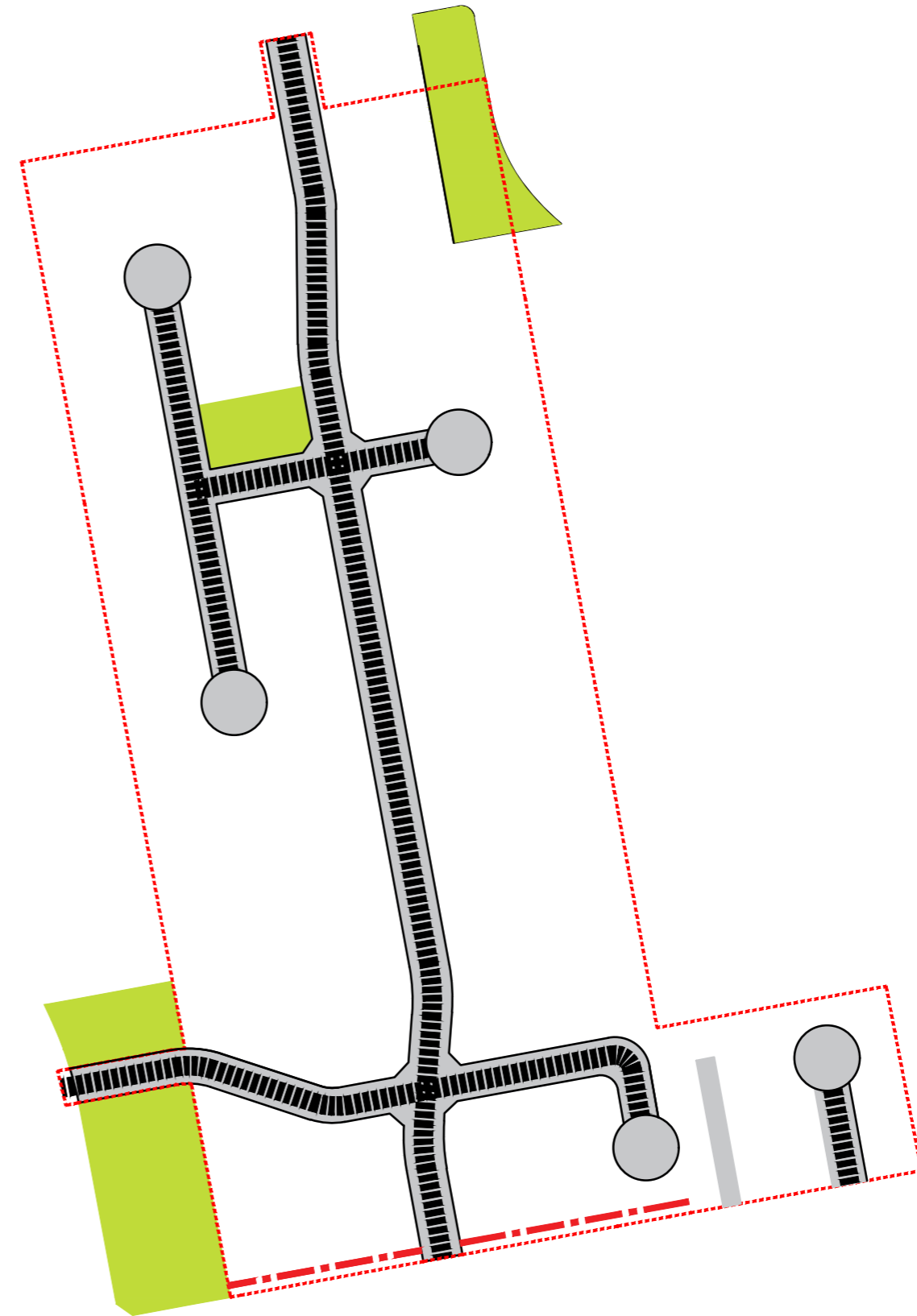
Approach 1



Legend

-  ODP Boundary
-  Restricted Access from Oxford Road
-  Local road centre line
-  Local road
-  Reserve open space provision

Approach 1



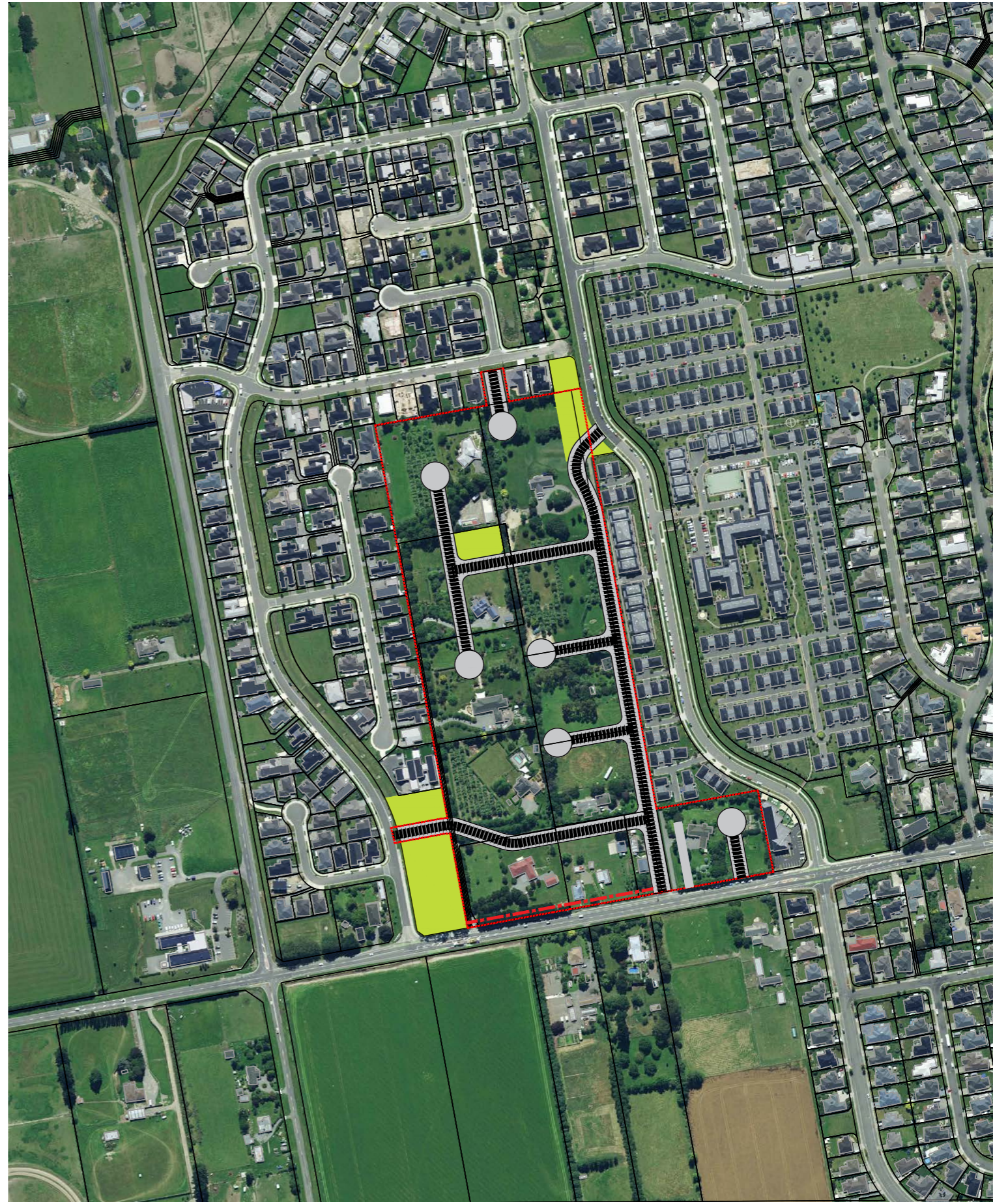
Legend

- ODP Boundary
- Restricted Access from Oxford Road
- Local road centre line
- Local road
- Reserve openspace provision

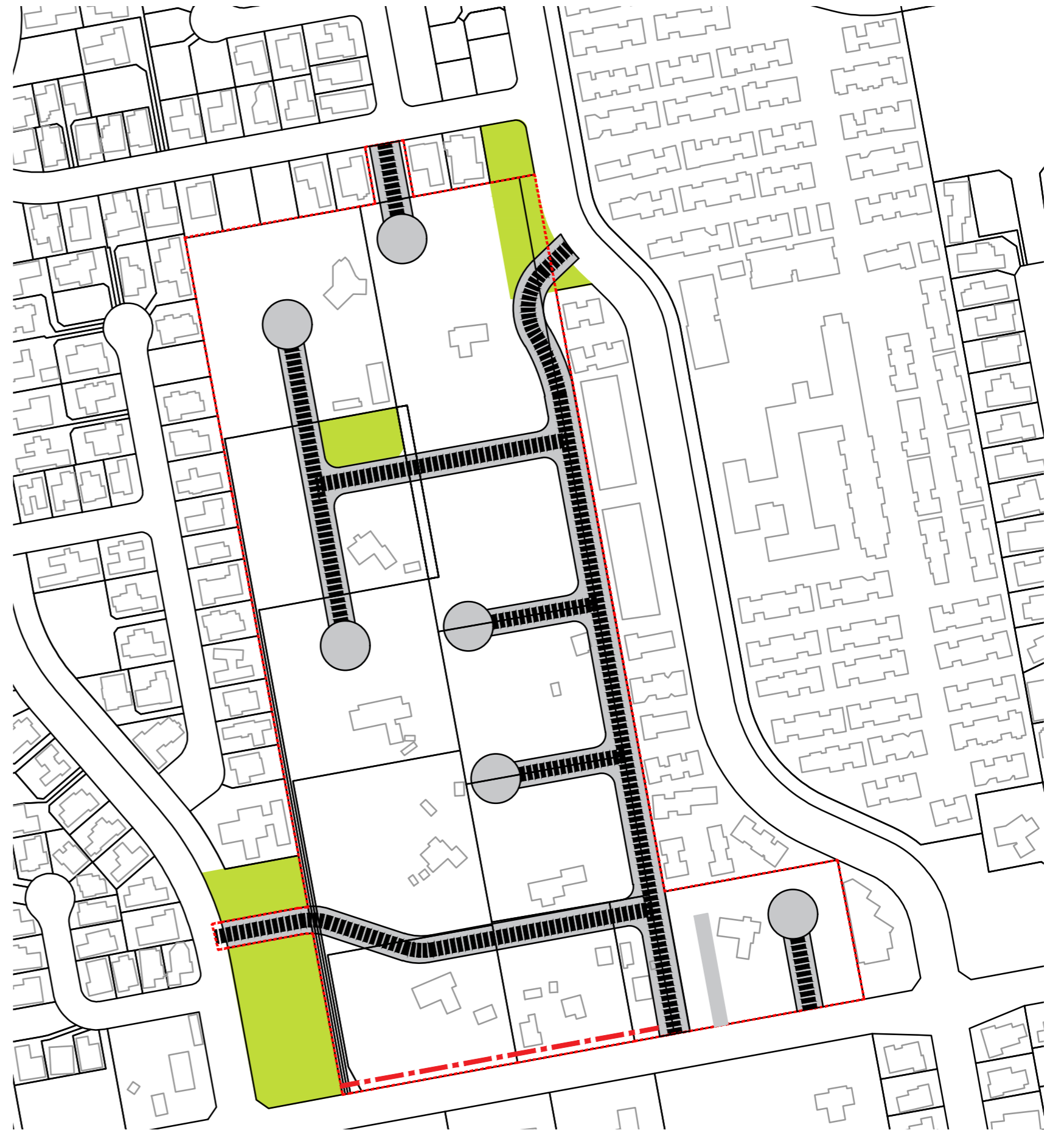
Approach 2

Formalising Brick Klin Lane approach providing north-south access on eastern side of ODP site.






- Three access of Oxford Road in close proximity, BKL + two on 7-Oxford Road
- Exit of BKL onto Charles Upham Drive
- 70 Oxford Road remains as per the consent
- Road connection through exiting Reserve to adjoin Westpark Boulevard opposite Brantholme Place
- Utilises vacant lot 7 on Chatsworth Ave for additional entry cul-de-sac
- Additional reserve space supporting existing reserve on corner of Chatsworth Ave and Charles Upham Drive
- One central neighbourhood reserve within the BKL ODP



Approach 2

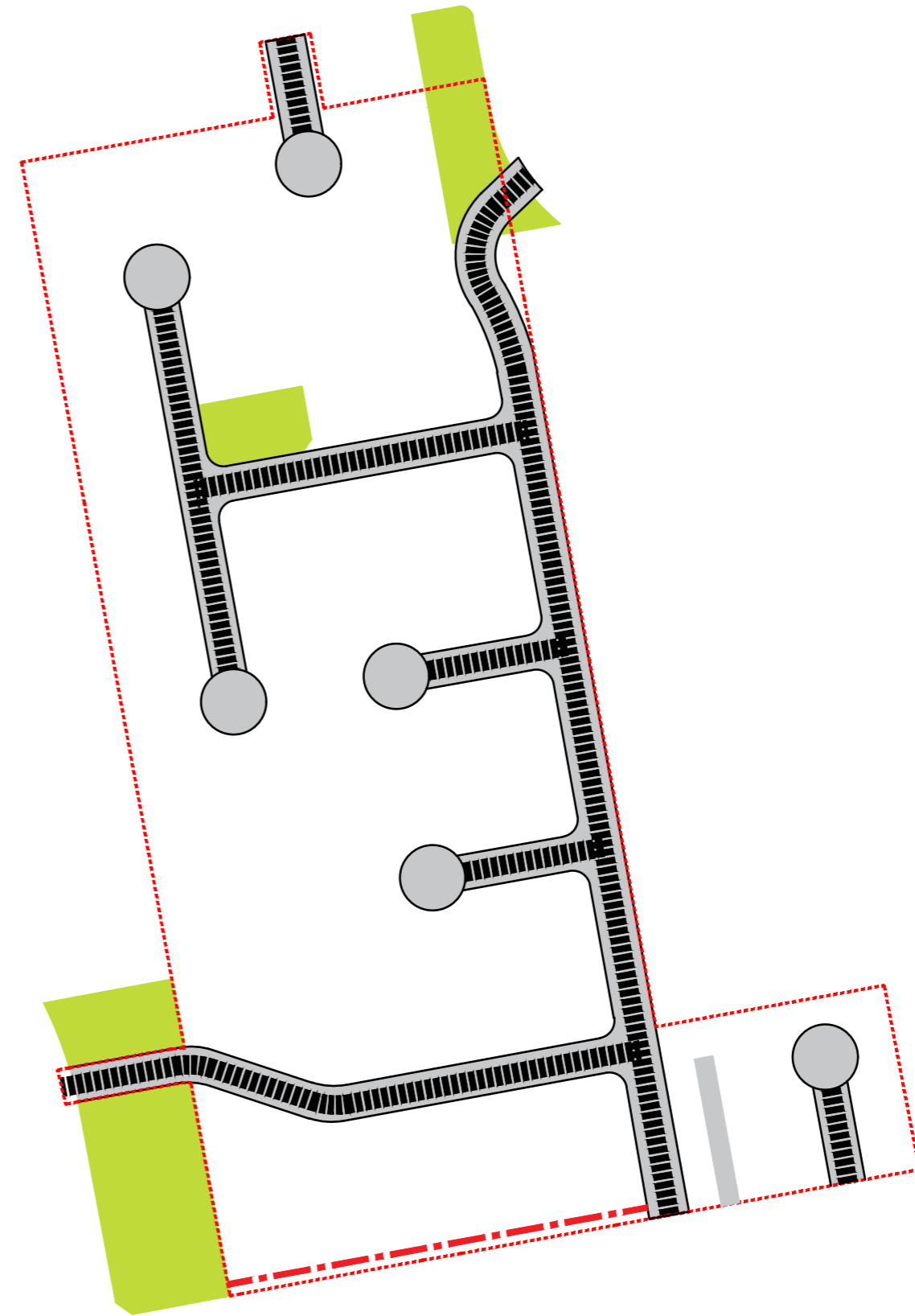


Legend

-  ODP Boundary
-  Restricted Access from Oxford Road
-  Local road centre line
-  Local road
-  Reserve open space provision



Approach 2



Legend

- ODP Boundary
- Restricted Access from Oxford Road
- Local road centre line
- Local road
- Reserve openspace provision

WAIMAKARIRI DISTRICT COUNCIL

MEMO

FILE NO AND TRIM NO: DDS-14-13-02 / 240517079328

DATE: 15 July 2024

MEMO TO: Peter Wilson, Principal Policy Planner

FROM: John Aramowicz, Senior Civil & Geotechnical Engineer

SUBJECT: Proposed District Plan Rezoning Requests
Stream 12E – Servicing, Natural Hazards, Geotechnical Matters

I write to summarise the issues that relate to water, wastewater and stormwater services, and the presence of any significant natural hazards or geotechnical matters that should be taken into account when considering the applications to rezone the following sites to General Residential Zone (GRZ) or Medium Density Residential Zone (MDRZ).

Firstly, however, I would like to highlight the recent publication by the Ministry for the Environment, “*Coastal hazards and climate change guidance*”, that was released on 29 February 2024.

Coastal hazards and climate change guidance

1. Waimakariri District Council’s Engineering Code of Practice requires a developer to “*discuss protection standards in tidal areas with ECan and the Council at an early stage. Storm surge and tsunami hazards, climate change, the District Plan requirements, and sea level rise must be considered, and a precautionary design approach is recommended*”.
2. The Ministry for the Environment’ (MfE) has previously provided guidance on coastal hazards and climate change through publications issued in 2008, 2017, and interim guidance in 2022.
3. Based on previous guidance, it has been common practice in Canterbury to assess the effects arising from 1.0m of sea level rise (SLR) occurring by the end of the century (i.e. 2100).
4. The Waimakariri District Council’s (WDC) Network Planning Manager, Chris Bacon, confirms the flood modelling that is currently shown on WDC’s natural hazard viewer, which I address in this memorandum, is based on 1.0m of SLR occurring by the end of this century. WDC’s flood modelling went through an extremely robust development process, including extensive modelling runs and peer review over many months, to ensure the flood hazard mapping is the best available.
5. The Waimakariri District Council have considerable experience with problems caused by coastal inundation and vertical land movement (i.e. subsidence) along the coast, particularly to the coastal areas around Kaiapoi where many areas are subject to a medium to high food hazard.
6. The MfE’s most-recent update to its guidance, “*Coastal hazards and climate change guidance*”, was recently released on 29 February 2024.
7. Given the timing of this, and the level of effort and time required to assess this new data and whether updates are required in response to it, Council’s existing flood hazard data

is considered the appropriate tool to assess these submissions at this time. Neither the Submitters nor Council have not been able to consider the updated guidance in relation to the Proposed District Plan. I have therefore assessed the following applications against the existing flood hazard assessments recorded on WDC's natural hazards viewer/GIS. This is consistent with my hazard reviews for the other rezoning streams.

Submission 290 (Doncaster Developments) – Cnr Lehmans & Parrott Road, Rangiora

8. The application site is located at the northern end of Lehmans Rd, near the Rangiora racecourse. The land can generally be described as flat but has a slight fall from the west down to the east. There is an overland flow channel just north of the site.

Natural Hazards

9. Current flood hazard mapping on WDC's GIS for a Localised Flooding Hazard 200yr scenario indicates the site is almost entirely within a zone of very low flood hazard. There are some broken up low hazard flow paths crossing the site, with a medium flood hazard overland flow path directly to the north of the site, following the northern boundary.
10. There is a small area of medium flood hazard to the northeast of the site in the Breakout Flooding Hazard 200yr scenario, but the development site itself is not directly affected.
11. There are no active faults, nor significant risk from liquefaction, nor likely deposits of peat.
12. In summary, there are no significant risks from natural hazards that would prevent the proposed land use.

Geotechnical Matters

13. The site is in an area where, based on existing nearby land, gravels are expected to be present at shallow depth. Given this, there are no known geotechnical matters that would prevent the proposed land use.

Stormwater

14. Groundwater resurgence is not a known hazard in this area.
15. The submitter proposes to treat and attenuate stormwater onsite by discharging stormwater into ground. Drawings in the Aurecon report indicate an SWMA is to be provided at the northeast part of the site.
16. The disposal of treated SW into ground is used by the existing adjacent subdivision and is considered appropriate for the groundwater and geological conditions of the area.
17. Note there is an ECan Drinking Water Protection Zone (DWPZ) that is close to the northeast corner of the site. A DWPZ is an area within which risks to a drinking water supply intake from contaminant sources are identified and appropriately managed. Any proposed discharge of stormwater will require Resource Consent from ECan.
18. In summary, the Aurecon report indicates stormwater runoff from the proposed land use can be treated and managed onsite in a way that will avoid adverse effects to surrounding property. Given this, there are no significant issues with stormwater runoff that would prevent the proposed land use.

Wastewater

19. There will be capacity within the existing WDC network. Wastewater can discharge to the Arlington network.
20. In summary, there are no wastewater constraints that would prevent the proposed land use.

Water

21. WDC's network has allowed for capacity to service this site.

22. In summary, there are no water supply constraints that would prevent the proposed land use.

Summary

23. There are no significant constraints that relate to natural hazards, geotechnical conditions, or the ability to provide stormwater, wastewater and potable water services to the site that would prevent the proposed GRZ land use.

Submission 213 (R&B Zahner, 70 Oxford Road) & 319 (Blakemore, 3 Brick Kiln Lane) – 70 Oxford Rd & Brick Kiln Lane, Rangiora

24. The application site is in the western part of Rangiora. The submitters (s213 and 319) have not provided an assessment on the risk from natural hazards, nor the geotechnical conditions, nor an assessment of how the site can be provided with water, wastewater and stormwater services.
25. However, the ODP included in the Proposed District Plan (PDP) identifies provision for a water main that will extend from Oxford Rd to the north boundary, the main part of the site to be zoned GRZ and for a strip of MDRZ along Oxford Rd.
26. The land can generally be described as flat but has a slight fall from the northwest down to the southeast.

Natural Hazards

27. Current flood hazard mapping on WDC's GIS for the Localised Flooding Hazard 200yr scenario indicates there is an area of low flood hazard along the southern boundary, indicative of low ground levels. There is an additional low to medium flow path which crosses 86 Oxford Road and 3 Brick Kiln Lane, and an area of medium to high flood hazard in 29 Brick Kiln Lane which suggests an area of lower lying land (a former clay quarry). This area ponds in the Localised Flooding Hazard 200-year scenario, showing this flood hazard results from rainfall and is not caused by the Breakout Flooding Hazard 200yr. Providing this area is filled with controlled, compacted inert earth fill to a satisfactory level, then the risk of inundation can be eliminated.
28. The area north of Oxford Road subject to these two submissions is not affected by the Breakout Flooding Hazard 200yr scenario.
29. There is no WDC swale/open drain present along Oxford Rd. In practice the flood hazard that occurs along the south part of the site, north of Oxford Road, could be avoided by filling of the site.
30. In summary, there are no significant risks from natural hazards that would prevent the proposed land use of the sites north of Oxford Road.

Geotechnical Matters

31. The submitters (213 & 319) have not provided any geotechnical evidence.
32. In my experience it is unlikely there will be a significant risk of liquefaction in this part of Rangiora.
33. My experience is that the southwest parts of Rangiora may be underlain by slightly reactive clayey silts, i.e. soils that can tend to shrink or swell due to a decrease or increase in soil moisture. However, it is also my experience that these soil conditions can be mitigated by appropriate engineering design and construction of pavements and building foundations.
34. In summary, while the submitter has not provided any geotechnical evidence, in my experience there is unlikely to be any significant geotechnical matters that would prevent the proposed land use

Stormwater

35. Groundwater resurgence is not a known hazard in this area.
36. While the submitter has not commented on future stormwater requirements, I am aware that treated stormwater is discharged into ground at the lower southeast corners of the existing subdivision developments that are immediately east and west of the site.
37. My experience is that low permeability soils may be present to around 2~2.5m depth in the area. If this is correct, then the submitter will need to provide an appropriately sized SW attenuation basin before SW runoff discharges either into ground or into the Council network. This can be addressed at time of application for subdivision and as part of detailed engineering design.
38. Given this, there are no significant issues with stormwater runoff that would prevent the proposed land use.

Wastewater

39. The submitter has not identified how a future subdivision can be serviced.
40. The site is within WDC's RGA25 growth area, and there are existing services at the boundary. Note, however, WDC ultimately proposes a gravity sewer for western Rangiora that is to drain down to the south. A temporary solution may be needed if development was to occur at this site before the gravity sewer is laid in the south. In summary, ultimately there are no significant wastewater constraints that would prevent the proposed land use.

Water

41. The submitter has not identified how a future subdivision can be serviced.
42. WDC's network has allowed for capacity to service this site. In summary, there are no water supply constraints that would prevent the proposed land use.

Summary

43. In summary, while the submitter has not provided any technical evidence with their submission, there is unlikely to be any significant constraints that relate to natural hazards, geotechnical conditions, or the ability to provide stormwater, wastewater and potable water services to the site that would prevent the proposed GRZ and MDRZ land use.

Submission 242 (Dalkeith Holdings Ltd) – 63 Oxford Rd & 212 Johns Rd, Rangiora

44. The application site is a large site in the western part of Rangiora, between Oxford Rd in the north and Johns Rd in the south. The submitter seeks rezoning to GRZ and MDRZ
45. The land can generally be described as flat but has a slight fall from the northwest down to the southeast.
46. The submitter has not provided any technical reporting on the risk from natural hazards, nor the geotechnical conditions, nor an assessment of how the site can be provided with water, WW and SW services. The application indicates it is Council's responsibility to determine servicing requirements.
47. The West Rangiora Development Area ODP is shown in the PDP. It identifies provision for a water main that will extend from Oxford Rd to the south boundary at Johns Road. There is provision for both MDRZ in the centre of the site and GRZ elsewhere, with a stormwater reserve to be located along the eastern boundary and at the southeast corner of 63 Oxford Rd.

Natural Hazards

48. Current flood hazard mapping on WDC's GIS for the Localised Flooding Hazard 200yr scenario indicates there is an area of low-medium flood hazard across the upper north part of the site (at 63 Oxford Rd) and along the eastern boundary (of 63 Oxford Rd), and an area of low flood hazard at the southwest part of the site (at 212 Johns Rd). The area

of low flood hazard increases significantly in the Breakout Flooding Hazard 200yr scenario where large parts of the south of the site are covered by a low flood hazard. There are no areas of high flood hazard on the site in either scenario.

49. The narrow areas of low or medium localised flood hazard across the site appear to be associated with shallow alluvial channels which “fill” during rain events. The existing overland flow paths will need to be managed, with subdivision consent complying with the ODP and using the eastern area as a stormwater management strip to convey flood waters.

Geotechnical Matters

50. The submitter’s planner (Aston Consultants) notes the site is in an area where “Liquefaction damage is unlikely”. No evidence is provided by the submitter to support this, however, in my experience it is unlikely there will be a significant risk of liquefaction in this part of Rangiora.
51. My experience is that the southwest parts of Rangiora may be underlain by slightly reactive clayey silts, i.e. soils that can tend to shrink or swell due to a decrease or increase in soil moisture. However, it is also my experience that these soil conditions can be mitigated by appropriate engineering design and construction of pavements and building foundations.
52. In summary, there are no known significant geotechnical matters that would prevent the proposed land use.

Stormwater

53. Groundwater resurgence is not a known hazard in this area.
54. My experience is that low permeability soils may be present to around 2–2.5m depth in the area. The submitter will need to provide an appropriately sized SW treatment and attenuation basin at the southeast part of the site as indicated on the ODP. Ideally, treated SW should discharge into ground, however, if ground investigations find that adequate ground soakage capacity is not possible, then attenuated flows of treated stormwater could be discharged into the Council’s future network that will drain down to the south towards South Brook. The design of the stormwater treatment and attenuation system can be addressed as part of detailed engineering design for the future subdivision.
55. Given this, there are no significant issues with stormwater runoff that would prevent the proposed land use.

Wastewater

56. Site is within RGA26 growth area, and there are existing services at the boundary. Note, however, WDC ultimately proposes a gravity sewer than drains down to the south. Temporary solution may be needed if development was to occur in the north before the south. Refer to Trim 231206196569.
57. WDC Water and Wastewater 50yr scheme upgrade report identifies need for WDC to provide West Rangiora Gravity Upgrade 2 in due course to service western Rangiora developments. In summary, ultimately there are no significant wastewater constraints that would prevent the proposed land use.

Water

58. WDC’s 50yr water & wastewater scheme upgrade report, trim 231206196569, identifies future provision of the Johns Rd supply main 1 and the Lehmans Rd ring main. WDC’s network has allowed for capacity to service this site. In summary, there are no water supply constraints that would prevent the proposed land use.

Summary

59. There are no significant constraints that relate to natural hazards, geotechnical conditions, or the ability to provide stormwater, wastewater and potable water services to the site that would prevent the proposed GRZ and MDRZ land use.

Submission 246 (M Hales) – 126 Lehmans Rd, Rangiora

60. The application site is located to the west of Rangiora, at the corner of Lehmans and Johns Rd. The submitter seeks GRZ and MDRZ.
61. The submitter has not provided an assessment of how the site can be provided with water, WW and SW service, but has provided a geotechnical report that comments on the risks from various potential natural hazards.
62. The application indicates it is Council's responsibility to determine servicing requirements.
63. An ODP is shown in the PDP that identifies provision for a new water main along Lehmans Rd and across the upper north part of the site, with the main part of the site to be zoned GRZ and for a strip of MDRZ at the south facing onto Johns Rd.
64. The land can generally be described as flat but has a slight fall from the northwest down to the southeast.

Natural Hazards

65. Current flood hazard mapping on WDC's GIS for a Localised Flooding Hazard 200yr event indicates there is a narrow area of low-medium flood hazard across the lower south part of the site and along the south boundary along Johns Rd. The areas at low flood hazard are similar for the Breakout Flooding Hazard 200yr scenario, but they spread over a larger area and an area of medium flood hazard appears in the southern part of the site. There are no areas of high flood hazard on the site area in either scenario.
66. The narrow areas of low-medium flood hazard across the site appear to be associated with shallow alluvial channels. The existing overland flow path should be addressed as a condition of future subdivision consent.

Geotechnical Matters

67. No significant geotechnical or natural hazards have been identified in the submitter's geotechnical report.
68. My experience is that the southwest parts of Rangiora may be underlain by slightly reactive clayey silts, i.e. soils that can tend to shrink or swell due to a decrease or increase in soil moisture. However, it is also my experience that these soil conditions can be mitigated by appropriate engineering design and construction of pavements and building foundations.
69. In summary, there are no known significant geotechnical matters that would prevent the proposed land use.

Stormwater

70. Groundwater resurgence is not a known hazard in this area.
71. My experience is that low permeability soils may be present to around 2~2.5m depth in the area, and that groundwater may be present around 2-3m bgl. Regardless, the submitter will need to provide an appropriately sized SW attenuation basin or alternative before SW runoff discharges either into ground or into the Council network. This can be addressed at time of application for subdivision and as part of detailed engineering design.
72. Given this, I consider there are no significant issues with stormwater runoff that would prevent the proposed land use.

Wastewater

73. Site is within RGA26 growth area, and there are existing services at the boundary. Note, however, WDC ultimately proposes a gravity sewer than drains down to the south. Temporary solution may be needed if development was to occur in the north before the south. Refer to Trim 23120619569.
74. WDC Water and Wastewater 50yr scheme upgrade report identifies need for WDC to provide West Rangiora Gravity Upgrade 2 in due course to service western Rangiora developments. In summary, ultimately there are no significant wastewater constraints that would prevent the proposed land use.

Water

75. WDC's 50yr water & wastewater scheme upgrade report, trim 231206196569, identifies future provision of the Johns Rd supply main 1 and the Lehmans Rd ring main. WDC's network has allowed for capacity to service this site. In summary, there are no water supply constraints that would prevent the proposed land use.

Summary

76. There are no significant constraints that relate to natural hazards, geotechnical conditions, or the ability to provide stormwater, wastewater and potable water services to the site that would prevent the proposed GRZ and MDRZ land use.

Submission 183 (R & G Spark) – north & south of Boys Rd, Rangiora

77. The application site is located on the south-eastern fringe of Rangiora, to the north and south of Boys Rd, extending as far south as Marsh Rd. The submitter seeks, in general, GRZ and MDRZ.
78. The submitter has proposed the South East Rangiora ODP be updated, primarily to realign roading connections for the part of the site that is north of Boys Rd, however this does not identify the ODP requirements for the area of land that is to the west of the future bypass, between Marsh and Boys Rds.
79. The submitter has provided evidence from Mr Alastair McNabb regarding how the site can be provided with water, WW and SW service. There is also a Flood Risk Assessment by Mr Amir Montakhab, and geotechnical evidence from Mason Reed which discusses the geotechnical report by Fraser Thomas that also comments on the risks from various potential natural hazards.
80. The land can generally be described as flat but has a slight fall from the northwest down to the southeast.

Natural Hazards

81. Current flood hazard mapping on WDC's GIS for the Localised Flooding 200yr and the Breakout Flooding Hazard 200yr scenarios indicate a similar hazard occurs for both scenarios. Two large overland flow paths will occur across the site, each with a low-medium flood hazard. These are associated with North Brook at the north part of the site, and Middle Brook which is close to Gefkins Rd.
82. The Fraser Thomas report identifies a risk of subsidence from deposits of peat, which I discuss below.
83. The submitter's geotechnical report concludes liquefaction is not a likely hazard.
84. The Fraser Thomas geotechnical report does not address the area of low-medium flood hazard, but implies that ground levels could be raised by filling.

Geotechnical Matters

85. The Fraser Thomas (FT) report confirms there are extensive deposits of peat across the mid-north parts of the site.

86. The risk of peat consolidating increases significantly when it is subject to new loads, say from fill or building foundations. The consequence of soft ground and peat consolidating is that new roads can subside and fail prematurely, the capacity of stormwater and wastewater systems that rely on gravity drainage can reduce or cease to operate as required, and structures supported by shallow foundations can suffer differential settlement that can lead to loss of amenity and, if significant, damage.
87. To mitigate the risk of subsidence posed by the peat and soft soils, FT proposed, as one option, to allow these materials to remain in place and to place earth fill over. FT suggest that most of the (primary) consolidation (i.e. subsidence) will occur during subdivision construction (they claim up to 75mm of consolidation will occur due to preloading), but accept a small amount (2mm) of additional (secondary) consolidation (i.e. subsidence) will still occur thereafter. FT's calculations are based on assumed geotechnical properties that imply the amount of secondary subsidence that will occur after development is completed will be relatively minor.
88. A similar construction technique (i.e. preloading) was used for the construction of the Christchurch Northern Corridor motorway. Preloading typically requires the importation and movement of large volumes of earth fill that are placed uniformly across the site to increase the effective stress within the peat. This causes the peat to compress. The rate of consolidation is then monitored by accurate survey. Often, considerable time is needed until consolidation is no longer occurring. Once consolidation has ceased, the 'preload' fill can be removed to allow construction of the new roads, piped services and building foundations. For the CNC project, despite actual laboratory testing of soil samples to inform the geotechnical modelling, there was often a significant variation between the predicted and actual amounts of consolidation that occurred, and of the time needed to achieve a stable profile. In some cases, this led to significant delays, and costly re-work.
89. Unfortunately, despite construction measures undertaken as part of subdivision construction, future subsidence can still occur many decades later if shallow peat is present. It is my understanding that this can be triggered by changes in groundwater flow and chemistry that can affect the rate at which shallow (<3m bgl) peat decomposes over time. I have observed this effect at several residential properties and roads in Christchurch that are founded over shallow peat, both before and after the 2010/11 Christchurch earthquakes.
90. The FT report also accepts that in lieu of preloading, the peat could be excavated and removed, and replaced with compacted inert fill, albeit that this method would likely require temporary dewatering and would be costly. This is generally a more reliable method of minimising the risk of subsidence.
91. Given this, I consider it technically preferable that all building foundations, roads and services are not underlain by shallow peat (i.e. if peat is present, it should be at least 3m below original ground level to minimise the amount of differential settlement that can occur over short distances).
92. Alternatively, Council may agree to a subdivision development that requires any shallow peat to only be removed from future roads, providing new buildings are supported on either deep piled or stiffened-slab foundations. Council may also require a low-pressure sewer system be used to mitigate the future risk of differential settlement (subsidence) occurring between the house and the services within the roads.
93. In summary, the site contains soft ground and peat. Subdivision design and construction will need to be undertaken in a way that minimises the risk of subsidence to future roads, underground services and building foundations.

Stormwater

94. Groundwater resurgence is not a known hazard in this area.
95. There is a large area that is modelled to have a low-medium flood hazard from a Localised Flood Hazard 200yr ARI event, and an even larger area in a Breakout Flooding Hazard

200yr event. Modelled together most of the site is subject to low and medium flood hazard, with the southern end of the site worst affected by Breakout Flooding Hazard 200yr.

96. The FT Flood Assessment report, which is addressed in Mr Amir Montakhab's evidence for the submitter, identifies the results of flood modelling for a possible development of the site. The modelling indicates a future development can be undertaken in a manner that will not result in a significant increase in flood hazard to downstream properties in that flood levels downstream are calculated to increase by only 20-40mm in a Localised Flooding 200yr scenario, and a similar amount for the Breakout Flooding Hazard 200yr scenario.
97. The submitter's ODP identifies SWMA's and wetlands which appear to be in logical locations although no evidence has been provided to demonstrate the sizing of the SWMA's is appropriate. The FT report indicates effects in a 200yr event will result in increased flood depth of less than 60mm to paddocks, not more than 20mm to existing houses.
98. The use of wetlands and the need for onsite attenuation appears to be a logical approach for SW management in this area. The ODP should allow flexibility to confirm sizing of both at subdivision stage.
99. From this location of Rangiora, SW runoff from the area will ultimately drain down towards the Silverstream/West Kaiapoi area where there is an existing high flood hazard. However, I expect that with careful engineering, the effect of any additional stormwater runoff from a future subdivision to downstream catchment can be largely mitigated using onsite and/or offsite attenuation. The FT report did not investigate this.

Wastewater

100. Site is within RGA32 & 43 growth areas, and there are existing services at the boundary. Note, however, WDC ultimately proposes a pumped sewer to provide capacity to Bellgrove, which would also service this site. Trim 23120619569 WDC Water and Wastewater 50yr scheme upgrade report identifies need for WDC to provide East Rangiora Stage 2 and Stage 3 in due course to service eastern Rangiora developments.
101. The evidence by Alistair McNabb discussed the FT Infrastructure Assessment Report and concludes the existing wastewater main that crosses the site does not have capacity for the proposed development, but that there are several other engineering solutions that can be used to convey wastewater from a future development to WDC's WWTP. I agree with this.
102. In summary, ultimately there are no significant wastewater constraints that would prevent the proposed land use.

Water

103. WDC 50yr water & wastewater scheme upgrade report, trim 231206196569, identifies the future need for the Marsh Rd Supply main and Boys Rd Booster Main to service the area. In summary, there are no water supply constraints that would prevent the proposed land use.

Summary

104. The site contains soft ground and peat. Subdivision design and construction will need to be undertaken in a way that minimises the risk of subsidence to future roads, underground services and building foundations.
105. Based on existing flood hazard modelling, I expect that with careful engineering, the effect of any additional stormwater runoff from a future subdivision to the downstream catchment area can be largely mitigated using onsite and/or offsite attenuation.

Submission #413 (Bellgrove Rangiora Ltd) – Bellgrove North & South blocks, Kippenberger Ave, Rangiora

106. The application site is located to the north and south of Kippenberger Ave, which is in the northeast part of Rangiora. The land generally falls from the northwest down to the south west.

Natural hazards

107. Aurecon's evidence and 2019 report confirms the southern part of the south block (south of Kippenberger Ave) site has soft organic silts and peat and a moderate risk of liquefaction (TC2).

108. Other than the risk of subsidence due to peat and liquefaction, there are areas of low-medium flood hazard that occur in both Localised Flooding 200yr scenario, and a similar hazard in a Breakout Flooding Hazard 200yr scenario. The low-medium flood hazard areas are associated with alluvial stream channels that flows through the site, which are the headwaters of the Cam River. The need for an overland flow path for the main channel feature is reflected on the ODP.

Geotechnical matters

109. Aurecon's geotechnical report suggests the areas that are underlain by peat/soft soils are to be used for an SWMA, and that the risk of subsidence can be mitigated by preloading. The scheme plan identified on the Aurecon site layout confirms it is intended to have roads and residential lots in the same area where Aurecon identified soft organic silt/peat.

110. Aurecon's report notes the north part of the site does not have a significant liquefaction hazard nor organic silt/peat and is much better suited for residential development.

111. Aurecon identify a risk of subsidence of roads/services and indicate ground improvement may be needed, but not what minimum standard of work will be required to mitigate this risk.

112. I have already discussed how shallow peat can pose a risk of subsidence, and how the risk can be eliminated or reduced. Refer to my comments on submission 183, above, which apply equally to submission 413.

Stormwater

113. It is understood there are springs on the lower southeastern parts of the site.

114. The ODP provides for onsite treatment and attenuation wetlands. In summary, there are no known significant stormwater constraints that would prevent the proposed land use.

115. The Aurecon reporting did not investigate whether the discharge of stormwater could result in an increased flood hazard further downstream.

116. Regardless, based on existing flood hazard modelling, I expect that with careful engineering, the effect of any additional stormwater runoff from a future subdivision to the downstream catchment can be largely mitigated using onsite and/or offsite attenuation.

Wastewater

117. There is provision in the WDC 50yr growth strategy for extension of wastewater services to the application site. In summary, there are no known significant wastewater constraints that would prevent the proposed land use.

Potable water

118. There is provision in the WDC 50yr growth strategy for extension of water services to the application site. In summary, there are no known significant water supply constraints that would prevent the proposed land use.

Summary

119. The site contains soft ground and peat. Subdivision design and construction will need to be undertaken in a way that minimises the risk of subsidence to future roads, underground services and building foundations.
120. Based on existing flood hazard modelling, I expect that with careful engineering, the effect of any additional stormwater runoff from a future subdivision to the downstream catchment area can be largely mitigated using onsite and/or offsite attenuation. The ODP should allow flexibility for sizing of stormwater management areas to be confirmed through detailed design at subdivision stage.

Submission # (250) – West side, 7-59 Golf Links Rd & 8 Kippenberger Ave

121. The application site is to the east of Bellgrove, located in northeast Rangiora.
122. The land falls from the northwest down to the southeast.
123. The submission seeks to rezone the site to GRZ.
124. WSP were engaged by WDC to comment on the geotechnical setting, and servicing requirements for a future development of the area. The WSP report was issued on 12 January 2024.

Natural hazards

125. The site is located in an area where there are typically shallow depth to natural gravels, which is consistent with comments made the WSP report.
126. The submitters have not provided any geotechnical reporting. However, I note the geotechnical reporting for s179 which is located to the southwest, identified a moderate (TC2) risk of liquefaction. Given the shallow depth to gravel and the geotechnical report for s179, I conclude the site is in an area where liquefaction is unlikely to be a significant hazard.
127. There are two obvious alluvial channels located at the south part of the site, Taranaki Stream which flows down to the east under Golf Links Rd, and the headwaters of the Cam River which flows down to the south under Kippenberger Ave.
128. Both stream channels have a narrow area of medium-high flood hazard that occurs in both Localised Flooding Hazard 200yr and Breakout Flooding Hazard 200yr scenario.
129. There is a small area at the southwest corner of 8 Golf Links Rd, and another area along the western edge of Golf Links Rd, that have a low-medium flood hazard in the Localised Flooding Hazard and Breakout Flooding Hazard 200yr scenarios. These areas appear to drain to the Cam River and Taranaki Stream, respectively.
130. Other than those small areas, all other parts of the site have a very low flood hazard in both a Localised Flooding 200yr and Breakout Flooding Hazard 200yr scenarios.
131. In summary, there are no known significant risks from natural hazards that would prevent the proposed land use.

Geotechnical matters

132. In summary, there are no known significant geotechnical matters that would prevent the proposed land use.

Stormwater

133. The site is expected to be capable of discharging stormwater into ground, or alternatively onto ground/surface water (subject to provision of effective attenuation to ensure stormwater effects are neutral post-development).
134. The WSP report assumes SW will be discharged into ground using an infiltration basin that may need to have a storage capacity of around 12,400 to 14,100m³. The capacity of the basin can only be confirmed after onsite infiltration testing is completed.

135. Provision will need to be made to maintain the capacity of Taranaki Stream and the Cam River. The development cannot have effects downstream on these waterbodies.
136. In summary, the WSP report indicates onsite SW treatment and disposal into ground is preferred by Council, but further site investigation and detailed engineering design will be required. This can be provided at time of application for subdivision consent.

Wastewater

137. The WSP report discusses a possible wastewater system comprising a new gravity main to be laid up Golf Links Road, and a new pump station constructed close to 8 Kippenberger Ave that will convey the wastewater to the existing pump station at the intersection of Kippenberger Ave and Devlin Ave.
138. In summary, there are no known significant wastewater constraints that would prevent the proposed land use.

Potable water

The WSP report confirms the area will be able to connect into water supply on Kippenberger Avenue, by laying a new water main up Golf Links Road. There are no known significant wastewater constraints that would prevent the proposed land use. Summary

139. In summary, there are no significant constraints that relate to natural hazards, geotechnical conditions, or the ability to provide stormwater, wastewater and potable water services to the site that would prevent the proposed GRZ land use.

Submission #179 (Hobson) – 4 Golf Links Rd & 518 Rangiora-Woodend Rd

140. The application site is located to the east of the proposed Bellgrove development, in northeast Rangiora. It is located to the east of Golf Links Rd and east of Marchmont Rd, and north of the Rangiora Woodend Rd, outside of the development area.

Natural hazards & Geotechnical conditions

141. No peat was encountered by the geotechnical investigation.
142. The Eliot Sinclair (ES) geotechnical report concludes the soils at the site are liquefiable, and in several places the ES testing indicates there is a moderate to high risk of liquefaction. ES conclude equivalent TC2 land performance is generally predicted for the site. ES do not propose any specific rules for the geotechnical conditions. I agree that the site can be suitable for the proposed land use, albeit that geotechnical conditions will need to be imposed as a condition of subdivision consent to ensure the risk from liquefaction is mitigated - as is normal practice.
143. WDC's Breakout Flooding Hazard 200yr scenario indicates the site is outside breakout flood hazard.
144. However, the Localised Flooding Hazard 200yr scenario identifies an alluvial channel (Taranaki Stream) that has a low-medium flood hazard. This is reflected in the flood hazard modelling assessed by ES.
145. In relation to the risk of inundation that could arise from a future residential development of the site, flood modelling by ES assumed a subdivision of the site would require filling of the land to create adequate falls for drainage. Modelling of their conceptual site layout indicates, that even with diversion swales at the northwest and northeast boundaries, and with onsite attenuation of stormwater, the proposed development could result in stormwater levels at the downstream boundary increasing by between 60-100mm, while stormwater levels to the land immediately (upstream) northwest and northeast of the site could be subjected to short term increases of between 225mm (northwest) and 410mm (northeast). I consider this a significant increase.
146. However, the location of existing dwellings on adjacent properties can be identified on the ES modelling, which confirms the increase in flood depths are largely contained in existing

alluvial depressions and therefore the increase in flood depth is unlikely to cause inundation to the existing building platforms.

147. Lastly, the effects on the downstream catchment have been demonstrated by ES. While the ES 200 year modelling indicates the development will result in a 60mm increase in the depth of inundation that flows over the Rangiora-Woodend Rd, ES demonstrate that the depth and velocity of the secondary flows will be sufficiently low and therefore the increase will not cause a significant safety hazard.

Summary

148. There is a risk of liquefaction that will need to be addressed at time of subdivision.
149. Based on the Flood Impact Assessment by Eliot Sinclair, I expect that with careful engineering, the effect of any additional stormwater runoff from a future subdivision to Taranaki Stream and/or the Cam River (and therefore the Silverstream/Kaiapoi area) can be largely mitigated using adequately sized diversion swales and onsite attenuation of stormwater runoff.

Submission #214 (Stokes) – Gressons Rd

150. The application site is located south of Gressons Rd, Waikuku, and north of the Ravenswood Development that is north of Woodend. The land generally falls from the west down to the east.

Natural hazards

151. There is a large area of low-medium flood hazard that is modelled to occur in the Localised Flooding Hazard 200yr scenario. In this scenario there will be a large area of overland flows from west to east across the mid-part of the site, as well as within an alluvial channel at the south-southeast part of the site
152. However, the Breakout Flooding Hazard 200yr flood model indicates there will be no flows across the site
153. The proposed development intends to build over large parts of the site where the Localised Flooding Hazard 200yr scenario indicates there is an existing low-medium flood hazard and an existing overland flow path.
154. DLS propose to construct a series of stormwater channels that will drain from W-E across the site to convey the flood flows through the site, as well as earthworks to create adequate surface drainage systems and allow floor levels to be established at an appropriate level.
155. I note the area much further downstream of the site that stormwater will flow into already has a high flood hazard, and appears to be influenced by the effects of coastal inundation.

Geotechnical matters

156. Engeo identify various parts of the site have a moderate to high risk of liquefaction i.e. TC2 and TC3, but acknowledge this risk can be reduced by placing a raft of non-liquefiable fill, or other ground improvement, and selection of appropriate foundation systems for residential dwellings.
157. Further, the alluvial soils across parts of the site of very soft and will subside (consolidate) when subject to additional loads (or changes in groundwater levels).
158. Engeo identify the possible need for pre-loading and monitoring to mitigate the risk of subsidence occurring. I agree that this is one possible method of limiting the risk of subsidence.

Stormwater

159. The DLS Infrastructure Design report did not investigate whether the discharge of stormwater could result in an increased flood hazard to downstream properties where there is already an existing high flood hazard.

160. However, based on existing WDC flood hazard modelling, and given the nature of the site, I expect that with careful engineering, the effect of any additional stormwater runoff from a future subdivision can be largely mitigated using onsite attenuation. Sufficiently large areas would need to be allowed for to manage the very large overland flow path which crosses the site (200 year localised flood model map below; green is low hazard, blue is medium):



161. Note there is an ECan Drinking Water Protection Zone (DWPZ) in the area, which is an area within which risks to a drinking water supply intake from contaminant sources are identified and appropriately managed. Any proposed discharge of stormwater will require Resource Consent from ECan.

Wastewater

162. WDC's Chris Bacon has advised there are no existing services to the site, therefore, wastewater would need to connect to the existing services located at either Waikuku Beach or Ravenswood/Pegasus.
163. WDC should consider whether it requires any developer-laid services to be upsized to allow for additional connections/capacity.
164. Regardless, in summary, there are no known significant wastewater constraints that would prevent the proposed land use. The cost may be significant.

Potable water

165. Chris Bacon has advised that there are no existing water services to the site, and therefore a new development would need to connect to the existing services located at either Waikuku Beach or Ravenswood (or alternatively establish a compliant onsite water supply well).
166. DLS note issues with nearby onsite wells. There is no certainty provided that a DWSNZ compliant water supply could be provided onsite. Given this, it seems the lowest risk option is to connect to the existing WDC network.
167. WDC should consider whether it requires any developer-laid services to be upsized to allow for additional connections/capacity.
168. In summary, there are no known significant water supply constraints that would prevent the proposed land use. The cost may be significant.

Summary

169. There is a risk of subsidence due to the presence of soft alluvial soils. There is also a moderate to high risk of liquefaction. Regardless, there are geotechnical solutions that can be used to reduce the risk of these hazards occurring.
170. While there are areas of low-medium flood hazard associated with a large overland flow path that crosses the site, based on existing WDC flood hazard modelling and the submitter's submission, I expect that with careful engineering, the effect to downstream property from any additional stormwater runoff from a future subdivision could be largely mitigated using onsite attenuation. However, due to the land areas likely required to manage stormwater and overland flow the site may not be able to support the MDRZ zoning which is sought by the submitter.

Submission #125 (Feechney) – Chinnerys Rd, Woodend

171. The application site is located at the northwest part of Woodend, immediately south of the Ravenswood development. The ground surface falls from the southwest down to the northeast.

Natural hazards & Geotechnical Matters

172. No geotechnical information was provided by the submitter, but I expect the area to have a moderate risk of liquefaction. For instance, the geotechnical report for the Ravenswood development to the north (TRIM240426066047) indicates the land has a moderate risk of liquefaction (i.e. TC2-like) and, as a result, this land in close proximity to the large stream (further north of the application site) has a risk of major lateral stretch. The risk of lateral spreading/stretch occurring to the small channel that cross the application site is unknown.
173. The T&T data for the nearby Ravenswood area indicates there was no shallow peat present but the shallow soils are soft and plastic. There will be geotechnical mitigation measures that can be provided at time of construction to eliminate/reduce the risk of liquefaction and lateral spreading (if this risk exists). The geotechnical investigation and construction requirements for a future subdivision of the site can be addressed as a condition of resource consent.
174. The Breakout Flooding Hazard 200yr scenario indicates the site has only a very low flood hazard.
175. The Localised Flooding Hazard 200yr scenario indicates there is an area of low-medium flood hazard at the lower northeast part of the site, but most of the site has only a very low flood hazard.
176. Providing areas subject to a medium flood hazard are not developed, and any areas at high risk of subsidence/liquefaction are remediated as a condition of subdivision engineering approval, the remainder of the site is unlikely to be subject to significant hazard.

Stormwater

177. The Submitter will need to provide an ODP with an SMA located at the lower east part of the site, discharging to the old Taranaki stream channel.
178. Note there is an ECan Drinking Water Protection Zone (DWPZ) that extends across the southwest part of the site, which is an area within which risks to a drinking water supply intake from contaminant sources are identified and appropriately managed. Any proposed discharge of stormwater will require Resource Consent from ECan.
179. In summary, provided a future ODP addresses the need for onsite treatment and effective attenuation to avoid adverse effects on the downstream environment, then I consider there are no known significant stormwater constraints that would prevent the proposed land use.

Wastewater

180. There is sufficient capacity within existing network, but existing services are likely to need to be realigned to suit a future development - at the Developer's cost.
181. In summary, there are no known significant wastewater constraints that would prevent the proposed land use.

Potable water

182. The WDC 50yr growth model (TRIM231206196571) identifies upgrades needed to service Chinnerys Rd in the year 2047, and notes the existing services that cross private property are likely to need to be realigned to suit a future development at the Developer's cost.
183. In summary, there are no known significant water supply constraints that would prevent the proposed land use.

Summary

184. There are no significant constraints that relate to natural hazards, geotechnical conditions, or the ability to provide stormwater, wastewater and potable water services to the site that would prevent the proposed GRZ/MDRZ land use.

Submission #201 (Hack) – 100/110 Parsonage Rd

185. The application site is in the northeast part of Woodend. The ground surface appears to have a slight fall from the north down to the southwest.

Natural hazards & Geotechnical matters

186. No geotechnical testing was carried out on the site to inform the submitter's submission, however, based on previous work by another consultant there is a TC2 risk of liquefaction, but no risk of lateral spreading, near the WDC wastewater pump station further west of the site.
187. The Localised Flooding Hazard 200yr and Breakout Flooding Hazard 200yr scenarios both indicate the site has only a very low flood hazard.
188. In summary, there are no known significant risk from natural hazards or other geotechnical matters that would prevent the proposed land use.

Stormwater

189. The ODP identifies the location of a SWMA at the southwest part of the site where the topographic survey indicate ground levels are lowest. The area allowed for the SWMA has not been confirmed and therefore should be seen as indicative only. This should be noted on the ODP.
190. In summary, there are no known significant stormwater constraints that would prevent the proposed land use.

Wastewater

191. There is capacity within the existing WDC pump station on Parsonage Rd to accept the discharge from a future development of the site, however it is likely a small pump station will need to be provided at the site to convey wastewater from a future subdivision to the existing pump station.
192. In summary, there are no known significant wastewater constraints that would prevent the proposed land use.

Potable water

193. Submitter suggests 180mm dia water main to be extended from McQuillan Ave to site to provide sufficient supply for firefighting/potable water. 50yr growth forecast assumed growth area WDG18 would be developed in yrs 31-50.
194. In summary, there are no known significant water supply constraints that would prevent the proposed land use.

Summary

195. There are no significant constraints that relate to natural hazards, geotechnical conditions, or the ability to provide stormwater, wastewater and potable water services to the site that would prevent the proposed GRZ/MDRZ land use.

Submission #215 (Woodwater) – South of Woodend

196. The application site is located at the south part of Woodend, south of Petries Rd. Ground levels across the site typically fall from the northwest down to the southeast.
197. The submitter has provided technical reports by ENGEO and Davie Lovell-Smith that address natural hazards and geotechnical constraints, and servicing requirements for a future subdivision, respectively.

Natural hazards

198. There are areas of low-med flood hazard that will occur in the Localised Flooding Hazard 200yr scenario, predominantly along eastern and south eastern boundaries of the application area.
199. The ENGEO 'Geotechnical Investigation' report, rev 1, dated 27/02/2024, indicates there is a moderate risk of liquefaction i.e. TC2.
200. The ENGEO report indicates there could be peat present, but that peat was not encountered in the shallow test pits they carried out across the site. The Enggeo report provides no further comment on this potential hazard. (Note – the appendices to the Enggeo report were not included in the report body).
201. From my experience, I am not aware of peat being prevalent in the south part of Woodend. Given that ENGEO have not commented further on peat, and that the report states peat was not encountered in the ENGEO test pits, it is assumed that the deeper CPT site investigations did not encounter any extensive or thick deposits that could make it impossible for the proposed GRZ land use.
202. In summary, there are no known significant natural hazard or geotechnical matters that would prevent the proposed land use.

Stormwater

203. WDC indicates at this location there is no spare capacity within McIntosh's Drain in this location or the existing WDC SW ponds on Petries Rd.
204. The Davie Lovell-Smith (DLS) 'Infrastructure Report', May 2024 addresses existing servicing constraints and likely servicing requirements for a future subdivision of the site. DLS propose onsite treatment and attenuation for the main part of the site. This will need to be a new facility that is designed at the southeast part of the site.
205. Stormwater runoff from the small area that is to the east of McIntosh's Drain is to discharge to the existing Petries Rd SWMA, as long as there is an extension of the basin and the necessary land provided.

Wastewater

206. DLS accepts that upgrades to the network, and possibly to the WWTP, will be needed to be able to service the proposed land use.

207. The submitter's evidence has highlighted that either a gravity drainage system with a new pump station, or a low pressure sewer system could be used to convey wastewater from a future subdivision to the Woodend Treatment Plant. Council agrees either of these options could be used, but note low pressure can only be used where gravity is demonstrate to be not viable or achievable as per the Engineering Code of Practice.
208. In summary, there are no known significant wastewater constraints that would prevent the proposed land use.

Potable water

209. Upgrades to the network will be needed to achieve adequate supply to the site. The provisions of the LTP may need to be brought forward to allow for early development of this site.
210. In summary, there are no known significant water supply constraints that would prevent the proposed land use.

Summary

211. There are existing constraints to WDC's stormwater network, wastewater network, and water supply system, however, these can be addressed and overcome by appropriate engineering design and future upgrades to WDC's network.
212. The geotechnical report indicates the site may be underlain by soft soils that may be subject to a risk of consolidation settlement (i.e. subsidence). However, there are subdivision construction methods that can be used, i.e. preloading, to reduce the risk of subsiding occurring after subdivision construction is completed.

Submission #173 & 208 (Momentum Land Ltd. & Suburban Estates) – Beach Rd, Kaiapoi

213. The application sites addressed by s173 and s208 are located to the northeast of Kaiapoi.
214. Momentum's site (submission 173) is located immediately north of Beach Grove where the Submitter seeks rezoning to MDRZ.
215. Suburban Estates' site (submission 208) is located immediately east of Sovereign Palms where the Submitter seeks rezoning to GRZ.

Natural hazards

216. The site of s173, just north of Beach Grove, has a very shallow depth to groundwater, a medium flood hazard in both the Localised Flooding Hazard 200yr and Breakout Flooding Hazard 200yr scenarios, but a high hazard in the Coastal Flooding Hazard 200yr scenario, a high risk of liquefaction, and a risk of subsidence due to consolidation of the soft alluvial soils that underlie the site.
217. The site of s208, just east of Sovereign Palms, is located to the north of s173. The ground levels across the s208 area must be slightly higher than those across s173, which is reflected in the very low to low flood hazard at the south and east parts of the s208 area in both the Localised Flooding Hazard 200yr and Breakout Flooding Hazard 200yr scenarios. In the Coastal Flooding Hazard 200yr scenario there is a large area of medium to high flood hazard across the mid and south parts of the site.
218. I was unable to find any technical reports from the Submitter (Suburban Estates) to support their submission s208. I therefore have drawn on information from previous geotechnical reporting held on WDC's records for the Sovereign Lakes development that is located immediately west of the site. Coffey's June 2012 geotechnical report (for the Sovereign Lakes development) indicates the Sovereign Lakes site is generally underlain by sands and gravelly sands, with groundwater located between 1-2m bgl. The site did not have a significant risk of liquefaction in either an SLS or ULS earthquake, but there were areas of moderate risk of liquefaction that resulted in a possible risk of lateral

spreading occurring in the area of the stormwater basins, that are located approximately southwest of the s208 area.

219. Both s173 and s208 sites are within an area where the modelled flood depth exceeds 1m in a 200yr Coastal Inundation event. All the s173 site but only a small part of the s208 site, exceeds 1m depth. Refer the areas of s173 and s208 highlighted on the following excerpt from the 200yr 2020 Coastal Inundation flooding map;



- 220.
221. Both s173 and s208 are in the 'orange' part of ECan's tsunami evacuation area, prepared for civil defence purposes. Environment Canterbury note "The orange zone is less likely to be affected by a tsunami and includes low-lying coastal areas that are likely to be flooded in a large tsunami that inundates land".
222. In relation to s173, Richard Brunton of Tonkin & Taylor (T&T) has modelled the hydraulic effects of the filling earthworks and concluded the risk of inundation to the new development can be avoided by filling the site to an appropriate level. The effects of the proposed filling on other existing properties was assessed by T&T as less than minor as the increase in flood water depth was modelled to be <35mm in a 50yr and 50~70mm in a 200yr event with no additional buildings inundated as a result of the development. The depth of flooding was, however, shown to increase. T&T adopted 1m SLR for RCP8.5 (as per the MfE's 2022 guidelines).
223. Richard Brunton's evidence addresses the minimum freeboard required by the NZBC, and assesses whether the increased flood depth will result in the freeboard no longer satisfying the NZBC. Of the 29 properties identifies in Table A2 of Mr Brunton's evidence, the dwellings at 258, 260 and 286 Williams St, 322 and 324 Beach Rd, and 117 Ferry Rd

currently do not meet the min.150mm or 500mm freeboard requirement of the NZBC. For these properties, T&T demonstrate how much the freeboard will reduce as a result of the proposed development.

224. In the case of the existing dwellings at 322 and 324 Beach Rd, T&T calculate the NZBC compliant freeboard should be 150mm, but calculate the existing freeboard is only 94 and 64 mm, respectively. Importantly, T&T calculate the freeboard would reduce as a result of the proposed subdivision construction to 67 and 37mm, respectively. This represents a 30~40% reduction in freeboard.
225. The other properties I listed above will experience a much smaller reduction in the existing freeboard, in the order of 5%.
226. I have not seen any technical reporting from Suburban Estates that investigates the effect of stormwater runoff from the s208 site to the surrounding area. Regardless, the nature of the land development works that will be required at s173 will be similar to that at s208. Given this, I expect the effect of any filling that will need to be carried out across s208 to mitigate the low-medium flood hazard will most likely have a similar minor increase in flood levels in northeast Kaiapoi.
227. Council is aware of the increase in predicted peak flood levels that T&T identify will arise from development of the s173 site. Assuming a similar effect will arise from development of the s208 site, it is possible the cumulative increase in flood height could be such that additional existing dwellings in Kaiapoi could be inundated. Council is aware that development of these areas is likely to occur over a number of years, during which it is reasonable to expect further modelling can be done to assess the cumulative risk, and where appropriate, to identify works that can be undertaken to mitigate or reduce the flood hazard.

Geotechnical matters

228. In relation to the existing ground conditions, T&T indicate that without ground improvement/earthworks, the s173 site would be TC3 (high risk of liquefaction). T&T proposed perimeter ground improvement to mitigate the risk of lateral spreading towards swales, and for placement of compacted fill with geogrid reinforcement, to reduce the risk of liquefaction-induced damage to shallow foundations. T&T also identify that preloading of the s173 site will be required to mitigate the risk of consolidation settlement. I agree that ground improvement and monitoring are common.
229. In relation to the s208 area, geotechnical conditions are likely to be better than those at s173. It is expected filling of the s208 site will be required to mitigate the risk of inundation and to achieve satisfactory conditions that can support shallow stiffened TC2 type foundations for future residential dwellings.

Stormwater

230. T&T have calculated the flood storage volume needed for attenuation of SW runoff, and assumed a wetland SWMA system will be provided for treatment of stormwater runoff. I agree that a wetland system is appropriate for treatment of stormwater runoff from the site.
231. A similar system is likely to be require for treatment and attenuation of SW runoff from the s208 site.

Wastewater

232. The submitter for the s173 site has demonstrated how to convey WW to the Council network, and there is provision in the LTP for WW capacity to service the proposed development. In summary, there are no known significant constraints that would prevent the proposed land use.
233. The ODP provided in the application for s208 identifies a wastewater pump station, and therefore, it is assumed it is intended that provide a gravity wastewater network draining to a pump station that discharges to a suitable location within the WDC network.

Potable water

234. There is provision in the LTP for capacity to service the proposed development at the south block (KAG08) in yr0-3 and the north block (KAG10) in yrs11-20. In summary, there are no known significant water supply constraints that would prevent the proposed land use.

Summary

235. Application site s173, and possibly s208, have a risk of subsidence from deposits of soft alluvial sediment, a moderate to high risk of liquefaction, and (for s173 site) a moderate to high flood hazard from both an Breakout Flooding Hazard 200yr event and from coastal inundation with a mean sea level of 1.0m. These hazards can be mitigated by ground improvement and filling of the site to a suitably high level.

Submission #332 (Mike Greer) – 144 & 170 Main North Rd, South Kaiapoi

236. The application site is located at the south end of Kaiapoi.
237. The flood hazard mapping suggests ground levels across the site fall from the northwest down to the south and southeast.
238. The site is bounded by Kaikainui Stream in the north, and Courtenay Stream in the south.

Natural hazards & Geotechnical matters

239. The west and central parts of the site have very low, low and medium flood hazards, while a comparatively small area along Courtenay and Kaikainui Streams as well as the east part of the site has a medium-high flood hazard in the Localised Flooding Hazard 200yr scenario.
240. WDC Flood modelling indicates that site has a very low flood hazard in the Breakout Flooding Hazard 200yr scenario.
241. Only the south boundary of the site, adjacent to Courtenay Stream, has a low-medium flood hazard in the Coastal Flooding Hazard 200yr scenario.
242. The south and southeast parts of the site were subject to liquefaction and lateral spreading in the September 2010 earthquake, with land spreading towards Courtenay Stream.
243. In general, the north and west parts of the site appear to be less susceptible to natural hazards.
244. ENGEO confirm that many parts of the site have a medium – high risk of liquefaction, and a compounding risk of consolidation settlement due to the presence of soft, saturated alluvial soils.
245. The DLS evidence confirms the site would need to be filled to avoid the risk of inundation in a 200yr event. While this seems a reasonable approach, it is likely to contribute to an increased risk of lateral stretch and consolidation settlement at the site that will require geotechnical mitigation.
246. The site is in the “orange” part of ECan’s tsunami evacuation area, prepared for civil defence purposes. Environment Canterbury note “The orange zone is less likely to be affected by a tsunami and includes low-lying coastal areas that are likely to be flooded in a large tsunami that inundates land”.

Stormwater

247. The Applicant has provided evidence by Gregory Whyte (Engineer, DHI) that explains how modelling by DHI confirms the proposed development will not increase the flood hazard to other property, with the exception of an 0.065m (i.e. 65mm) increase in flood depth along Main North Rd. Mr Whyte explains this could be reduced further by careful engineering design.

248. I agree that it is technically feasible to achieve onsite treatment, and to mitigate the risk of inundation for a future development by filling to raise ground levels across the site, but the volume of any stormwater management area that is needed to attenuate peak flows, and the rate at which treated stormwater can be discharged to Courtenay and/or Kaikainui Streams, will need to be confirmed at time of subdivision consent.

Wastewater

249. There is provision in the LTP for capacity to service the proposed development (KAG22) in yrs21-30 associated with the South of Kaikainui Supply Main Stage 2 works, forecast for yr 2052. Submitter identifies solution to construct developer-funded rising main to Parkham St pump station to service the site. There is sufficient capacity within the Kaiapoi WWTP for the proposed in summary, there are no known significant wastewater constraints that would prevent the proposed land use.

Potable water

250. There is provision in the LTP for capacity to service the proposed development (KAG22) in yrs21-30, associated with the South of Kaikainui Supply Main Stage 2 works.
251. In summary, there are no known significant water supply constraints that would prevent the proposed land use.

Summary

252. There is a risk of subsidence due to the presence of soft alluvial sediments, a high risk of liquefaction and lateral spreading from earthquake shaking, and an area of high flood hazard from a Localised Flooding Hazard 200yr scenario which needs to be managed. There are technical solutions that can be used to overcome each of these hazards, such as by placing controlled, compacted fill and ground improvement, and careful hydraulic design and onsite attenuation of stormwater runoff.

Submission #239 (Williams Waimak Ltd) – 12 Williams St, Kaiapoi

253. The site is located on the southeast part of Kaiapoi. Ground levels across the site appear to be slightly lower than surrounding land. The site is zoned MDRZ.

Natural hazards & Geotechnical matters

254. The submitter has not provided any supporting technical evidence. However, I note Kaikainui Stream is located just south east of the site. Extensive liquefaction was mapped to east of site after the September 2010 earthquake, suggesting there is most likely a moderate to high risk of Liquefaction occurring at the site.
255. Flood hazard modelling on WDC's GIS indicates that in the Localised Flooding Hazard 200yr scenario the site has a medium flood hazard, but the adjacent land all around has only a very low flood hazard - indicating ground levels across the application site are lower than surrounding land. The hazard from the Localised Flooding Hazard 200yr scenario could be eliminated by filling of the site to a satisfactory level.
256. The site has a very low flood hazard in both the Breakout Flooding Hazard 200yr and the Coastal Flooding Hazard 200yr scenarios.
257. The site is in the 'yellow' part of ECan's tsunami evacuation area, prepared for civil defence purposes. Yellow zones are areas least likely to be affected by a tsunami. They could potentially be flooded in a very large tsunami coming from across the Pacific Ocean.
258. While there is likely to be a medium, and possibly a high, risk of liquefaction, there are ground improvement and foundation design options that can be implemented to reduce or mitigate the risk posed by liquefaction.
259. In summary, there are no known significant geotechnical matters that would prevent the proposed land use.

Stormwater

260. WDC agree that it is technically feasible to achieve onsite treatment of stormwater runoff, but the volume needed to attenuate peak flows and the rate at which treated stormwater that can be discharged to Courtenay and Kaikainui Streams can only be determined from hydraulic modelling. The site is challenging due to high groundwater levels, and I understand the submitter has previously contacted Council to discuss whether there is an offsite stormwater attenuation solution which could work to support development of this site. Logistically there are challenges relating to capacity of the Kaikainui stream and localised flooding issues associated with the Kaikainui breaking out. This detailed design work could be carried out in support of an application for subdivision consent, but to date I understand it has proved challenging to find a solution which meets the developer's timeframes and Council's LTP.

Wastewater

261. There are existing sewers present in nearby roads, and WDC have made provision in the 50yr growth forecast to upgrade capacity with a 160PE rising main to service South Kaiapoi. In summary, wastewater services can be achieved to the site. In summary, there are no known significant wastewater constraints that would prevent the proposed land use.

Potable water

262. There is an existing 200 dia main that crosses the site, and WDC have made provision to upgrade supply to South Kaiapoi with a 200 dia main along Williams St as part of the 50yr growth plan. In summary, there are no known significant water supply constraints that would prevent the proposed land use.

Summary

263. There is a likely to be a risk of subsidence due to a medium to high risk of liquefaction, and possibly a risk of lateral spreading towards Kaikainui Stream from earthquake shaking (albeit that there are technical solutions that can be used to overcome each of these hazards, such as by placing controlled, compacted fill and ground improvement).

Submission #31 & 261 – Kaiapoi Lakes (likely to be 236 and 264 Lees Rd, and south of Lees Road)

264. The application site is reported to be located west of Sovereign Palms and east of Williams St.

265. The submitter has not provided any technical evidence, nor an ODP, nor an address or map to locate the properties at which relief is sought. Regardless, I comment on information that is known or available to me.

266. My review of aerial photography indicates there is an area of rural land to the east of Williams St, and north of Lees Road. The address of these two sites is 236 and 264 Lees Rd. There are several properties around a lake to the south of Lees Road, with addresses from 261 Lees Road round to 548 Williams Street. I assume these are the areas to which s31 & 261 relates to where residential zoning has been sought.

Natural hazards & Geotechnical matters

267. The site has a very low to low flood hazard in each the Localised Flooding Hazard 200yr scenario.

268. The site has a very low flood hazard in both the Breakout Flooding Hazard 200yr and the Coastal Flooding Hazard 200yr scenarios.

269. I am aware that the area that is immediately east and west of Williams St, and south and north of Lees Rd contains several former sand and gravel pits that are now lakes. This confirms the area is most likely to be underlain sand or sandy gravels.

270. Further, the Coffey geotechnical report carried out for the Sovereign Lakes development, southeast of the site, identified the presence of medium dense to dense sand and gravelly sands, with groundwater typically between 1-2m bgl, and typically with a low risk of liquefaction. However, Coffey did identify there was a moderate risk of liquefaction, particularly to areas adjacent to the lakes and new swales/basins.
271. Ground level contours recorded on the WDC GIS indicate the water level of the lake that is north of the site is around 1m RL, and ground levels across 236 and 264 Lees Rd are around 4~5mRL. This implies groundwater is likely to be present around 3m bgl.
272. Taking the topography and flood risk into account, I consider the area to the east of Williams St and north of Lees Rd can be developed in a manner that avoids or mitigates the risk of natural hazards (specifically inundation).
273. Detailed geotechnical investigation will be required to support any application for subdivision consent. The investigation should identify any risk of liquefaction and lateral spreading, and whether any additional measures will be needed to eliminate or reduce the risk of liquefaction and lateral spreading, along with any other significant risks from natural hazards (if present).
274. Given this I consider the addresses I have listed above are not likely to be subject to any significant natural hazard or geotechnical conditions that cannot be addressed as a condition of subdivision consent. Stormwater
275. Given the nature of the geology (sand or sandy gravel), and the likely 3m depth to groundwater, it may be possible to dispose of treated stormwater into ground. In summary, there are unlikely to be significant stormwater constraints that would prevent the proposed land use.

Wastewater

276. Servicing is achievable. It can be done, but there is cost associated the submitter/developer will need to meet. In summary, there are no known significant wastewater constraints that would prevent the proposed land use.

Potable water

277. Servicing is achievable. It can be done, but there is cost associated the submitter/developer will need to meet. In summary, there are no known significant wastewater constraints that would prevent the proposed land use.

Summary

278. There are no significant constraints that relate to natural hazards or the ability to provide stormwater, wastewater and potable water services to the site that would prevent the proposed GRZ/MDRZ land use. The sites do need geotechnical investigations, particularly those located around the lakes, to confirm suitability to support increased residential density.

Submission #121 & 367 – 261 Giles Rd, Clarkville

279. The application site is located just southwest of the existing Silverstream subdivision.

Natural hazards & Geotechnical matters

280. The site has a medium flood hazard in the Localised Flooding Hazard 200yr scenario. There is an area of high flood hazard along the west boundary of the site, along the stream that drains down to the north. The site is not subject to inundation in an Ashley Breakout event.
281. The site has a very low flood hazard in both the Breakout Flooding Hazard 200yr and the Coastal Flooding Hazard 200yr scenarios.

282. Filling of site could mitigate the medium flood hazard, however, consideration will need to be given to the effect of loss of flood storage volume. This will need to be assessed at time of application for subdivision consent, and where appropriate addressed as part of detailed engineering design.
283. Unknown liquefaction hazard, but given the location of the Silverstream subdivision immediately north of the site, it seems likely that the site could be made geotechnically suitable for the proposed land use.

Stormwater

284. Technical advice not requested.

Wastewater

285. Technical advice not requested.

Potable water

286. Technical advice not requested.

Summary

287. In summary, it is my opinion that there are no significant constraints that relate to natural hazards or geotechnical conditions.

Submission #181 (Fred Coughlan for the North Rangiora Owners Group)

288. The application site is located at the northwest part of Rangiora along West Belt, just east of the Racecourse. There is an alluvial channel that flows from the southwest down to the northeast that crosses the mid-part of the site.
289. The site appears to comprise several adjacent private properties.
290. No ODP has been provided, nor any geotechnical or natural hazard investigation.

Natural Hazards

291. The Localised Flooding Hazard 200yr and the Breakout Flooding Hazard 200yr scenarios indicate the south half of the site is almost entirely within a zone of very low flood hazard, except for a narrow area of medium flood hazard along the alluvial channel that is to the west of West Belt road, which becomes a high flood hazard within the same alluvial channel but to the east of West Belt. The north half of the site has a low and medium flood hazard in both scenarios.
292. There are no active faults, nor significant risk from liquefaction, nor likely deposits of peat.
293. In summary, there are no significant risks from natural hazards that would prevent the proposed land use.

Geotechnical Matters

The site is in an area where, based on existing nearby land, gravels are expected to be present at shallow depth. Given this subsidence and liquefaction are not likely hazards. In summary, there are no known significant natural hazard or geotechnical matters that would prevent the proposed land use.

Stormwater

294. Note there is an ECan Drinking Water Protection Zone (DWPZ) that covers the whole of the site, which is an area within which risks to a drinking water supply intake from contaminant sources are identified and appropriately managed. Any proposed discharge of stormwater will require Resource Consent from ECan.
295. Submitter should provide an ODP that identifies conceptual locations and areas needed for SW treatment, flood conveyance, and attenuation. A SWMA will ideally need to be located at the lower northeast part of the site. It is expected that roof water and treated

surface stormwater will most likely be discharged into ground. Where discharge to the alluvial channel is required, it is possible onsite attenuation may be needed to mitigate the effects to downstream properties. This assessment can be undertaken at time of application for subdivision consent.

296. In summary, there are no known significant stormwater constraints that would prevent the proposed land use.

Wastewater

297. Whilst there may be some minor constraints, there will be engineering solutions that will allow this area to be serviced, most likely by discharging into the existing Arlington wastewater network. In summary, there are no known significant wastewater constraints that would prevent the proposed land use.

Potable water

298. There is piped reticulated water supply nearby, and a water main crosses the site. This will most likely need to be relocated as part of development.
299. In summary, there are no known significant water supply constraints that would prevent the proposed land use.

Summary

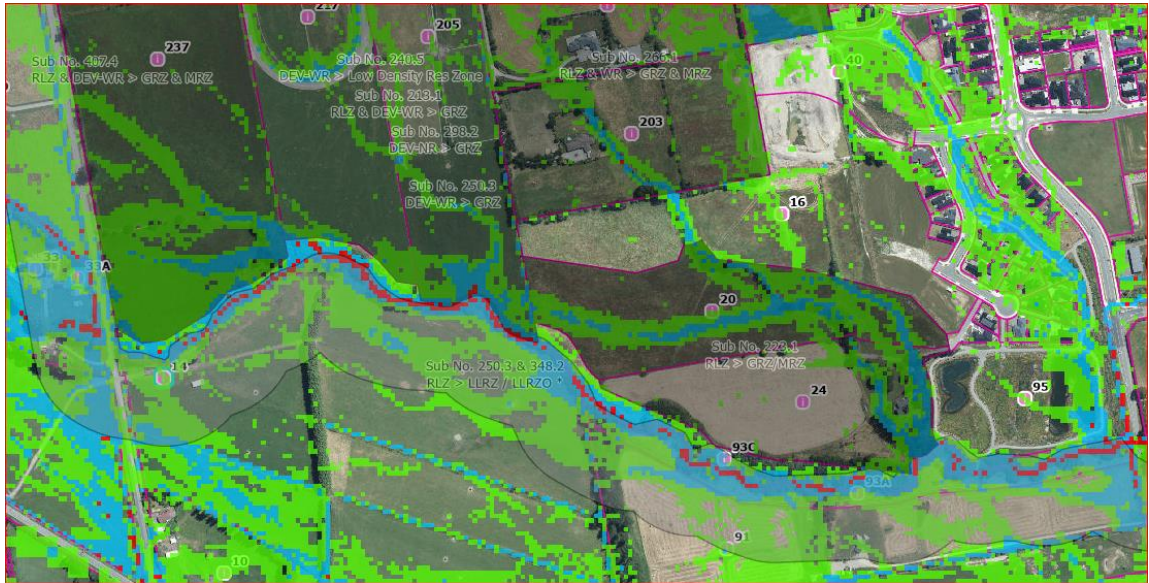
300. There are no significant constraints that relate to natural hazards, geotechnical conditions, or the ability to provide stormwater, wastewater and potable water services to the site that would prevent the proposed GRZ/MDRZ land use.

Submissions 223.1 and 223.14 (Broughton), s.266.1 (199 Johns Road Ltd and others), s.297.1 (Skelley), s.340.1 (Paterson), s407.4 (Schluter)

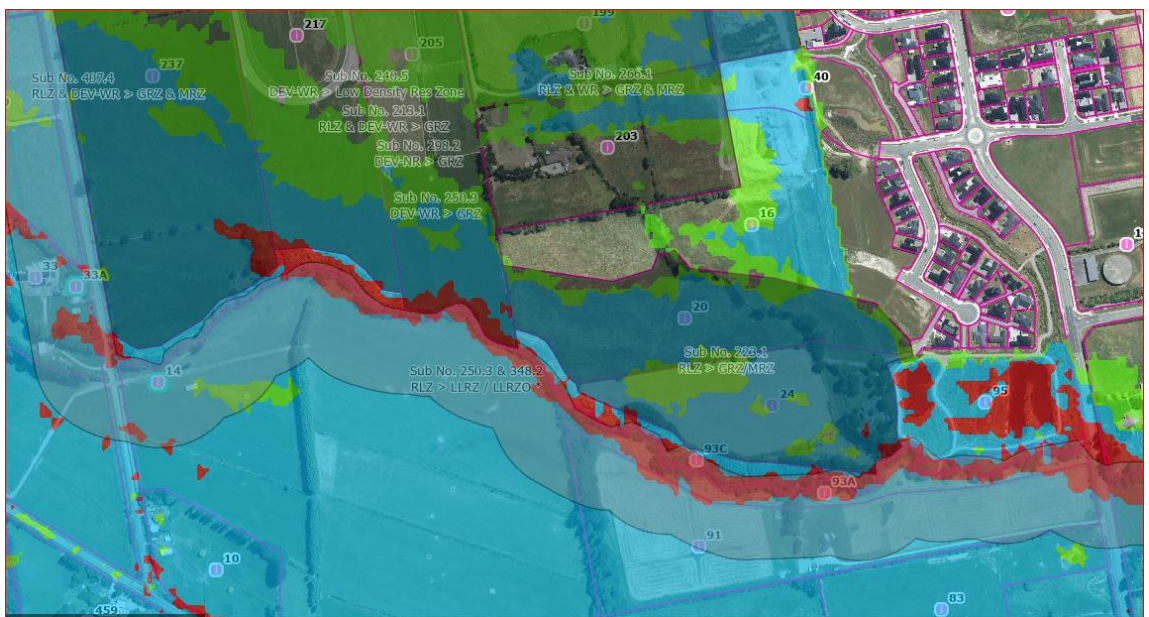
301. All submissions listed above relate to the West Rangiora Outline Development Plan included in the PDP.
- a) Submission 223 for Broughton by Aston Consultants relates to the 8.4Ha site at the southern end of the ODP, formerly 117 and 113 Townsend Road (now 20 and 24 Angus Place). These two sites form the southeastern part of the West Rangiora ODP area. The submission seeks rezoning to GRZ and MDRZ. The submission discusses natural hazards and attaches an assessment of stormwater management and flood risk from Reeftide. A small additional SMA to the west of the existing Townsend Fields SMA is proposed in the southeast corner on the amended ODP included in the submission.
 - b) Submission 266 for by Eliot Sinclair relates to the sites at 163, 191, 199 and 203 Johns Road, seeking rezoning to GRZ and MDRZ. These sites border Townsend Fields development to the east and south, and Johns Road to the north. The submission proposes a new South-West Rangiora ODP for the site. The proposed SW Rangiora ODP does not extend as far south as 20 and 24 Angus Place, which is subject to submission 223. The submission proposes a new SMA area, to the west of the ODP and outside the ODP area. Appendix C of the submission includes an Infrastructure Services Report from Eliot Sinclair.
 - c) Submission 297 supports rezoning to residential zone south of Johns Road, and does not attach further information in support of the submission.
 - d) Submission 340 relates to the certification process, and does not raise engineering matters.
 - e) Submission 407 relates to 237 Johns Road, and is supportive of the proposed GRZ zoning for the site shown in the West Rangiora ODP. The submission raises concerns with the certification process, and does not put forward information regarding servicing etc.

Natural Hazards

- 302. The southern part of the ODP site is susceptible to flooding.
- 303. Modelling indicates there are relatively narrow areas of low to medium flood hazard that are largely confined to various alluvial depressions and shallow stream channels in a 200yr local flood event. Refer below;



- 304.
- 305. Importantly, the extent of the flood hazard increases substantially to a medium to high flood hazard in the Breakout Flooding Hazard 200yr scenario, with approximately half of 237 Johns R (s407) and virtually all of 20/24 Angus PI (s233) modelled to have a medium flood hazard. Only the far south part of 205 and 217 Johns Rd have a medium flood hazard, with the main mid and north parts of these two sites having a low to very low flood hazard in the Breakout scenario. Refer below:



- 306. Submissions 223 and 266 propose mitigating the risk of the Ashley River breakout by constructing an earth bund in an area to the west and south of the ODP.
- 307. Submission 223 does not provide any evidence of the potential effects of the proposed earth bund that would be needed to enable a residential development of 20/24 Angus Place.
- 308. Submission 266, appendix C (Eliot Sinclair assessment) identifies in s4 of their report that a bund and channel solution to the west of their proposed development area was

demonstrated to work well through flood modelling completed by Fluent Solutions. The configuration conveys flows to the south and increased flood depth in the southern most areas of 205 Johns Road (to the west and outside the ODP area), and 117 Townsend Road (now 20 Angus Place). 117 Townsend Road is subject to submission 223, seeking MDRZ and GRZ. The Eliot Sinclair report notes the area is pasture, but should this be rezoned as proposed it would not be acceptable for flood effects to be caused here.

309. Submission 407 in support of GRZ at 237 Johns Road supports the proposed zoning. I note there is medium hazard flooding shown in the Breakout Flooding Hazard 200 year model across the southern part of the site, so it is likely this area would need to largely be stormwater management areas.
310. Submitter 407 has not provided any evidence to demonstrate the potential effect of an earth bund along the full length of the western boundary of the site, however, in my opinion it is quite likely an earth as described would be very likely to increase the flood hazard to other property to the south, and possibly upstream to the west of the site.
311. I note the south half of 237 Johns Rd (s407) and all of 20/24 Angus PI (s233) is modelled to have a medium flood hazard in the Breakout Flooding 2020 scenario. Importantly, these areas are located within the main South Brook flow channel, where a breakout of the Ashley River is modelled to flow.
312. Mr C. Bacon has explained to me how the earth bund that was constructed to the west of Townsend Fields redirected only a minor secondary flow channel, not the main flow channel associated with South Brook.
313. Mr Bacon is concerned that any filling work, or attempt to divert the main South Brook flow channel would increase the flood hazard to surrounding property. I agree that any filling works within the main flow channel are likely to increase the flood hazard on adjacent property.
314. Given an earth bund and site filling would be needed to protect the south half of 237 Johns Rd (s407) and all of 20/24 Angus PI (s233), and the south parts of 205 and 217 Johns Rd, and the construction of a bund and filling within the main South Brook channel is likely to result in an increased flood hazard to other property, it is unlikely that these areas (i.e. the southern parts of the West Rangiora Outline Development Plan area) can be used for residential land use, however, the land could be used for stormwater management purposes.

Geotechnical Matters

315. The PDP planning maps identify the site as "liquefaction damage is unlikely".
316. As noted above in relation to submission 242 (Dalkeith Holdings), my experience is that the southwest/west parts of Rangiora may be underlain by slightly reactive clayey silts, i.e. soils that can tend to shrink or swell due to a decrease or increase in soil moisture. However, it is also my experience that these soil conditions can be mitigated by appropriate engineering design and construction of pavements and building foundations.
317. In summary, there are no known significant geotechnical matters that would prevent the proposed land use.

Stormwater

318. Groundwater resurgence is not a known hazard in this area. It is noted groundwater levels in this area do fluctuate (as identified in the Elliot Sinclair report appendix C submission 266) and need to be allowed for in civil infrastructure design. The shallowest reading report is 0.2m bgl, and deepest is 3.8m bgl.
319. As noted above the southern area of the West Rangiora ODP is subject to the worst of the breakout flooding, where there is a large area of medium flood hazard. Submitter 223, who owns the land in this area (20 and 24 Angus Place), has included an assessment of stormwater but this has not considered the impact of the earth bund on surrounding

property. Regardless, submitted 223 identifies additional stormwater management will be required for the site, as the existing Townsend Fields SMA does not have capacity to service the area.

320. Submission 266 (163,191,199 and 203 Johns Road) confirms the Townsend Fields SMA was designed and constructed to provide attenuation and treatment for a 50ha upstream catchment, which includes these land parcels. However, as noted in the submission the design assumed these areas would develop to a Residential 2 standard. Residential 2 has minimum lot sizes of 600m². If smaller lots, higher density and higher impermeable site coverage is permitted, this SMA may not have capacity for the additional stormwater run-off from these areas.
321. Elliot Sinclair in Appendix C of submission 266 identify this, and conclude a new SMA would be required to detain the additional runoff, which would be released to the existing Townsend Fields SMA area for treatment. This is feasible and detailed design would be required at subdivision consent stage.
322. Overall, there are feasible stormwater management options available for the ODP area, and the details of these can be confirmed at time of subdivision design. The main issue that will need to be addressed is the large area of medium-high flood hazard in the 200yr breakout scenario, as these are unlikely to be suitable for residential development.

Wastewater

323. Site is within RGA26 growth area. Council has previously put together a proposed servicing plan for the West Rangiora Development area. The ODP anticipates servicing of this area. A temporary solution may be needed if development occurs in the north before the south (refer to Trim 231206196569).
324. WDC Water and Wastewater 50yr scheme upgrade report identifies need for WDC to provide West Rangiora Gravity Upgrade 2 in due course to service western Rangiora developments. In summary, ultimately there are no significant wastewater constraints that would prevent the proposed land use.

Potable water

325. As with Wastewater, Council has previously put together a proposed servicing plan for the West Rangiora Development area. WDC's 50yr water & wastewater scheme upgrade report, trim 231206196569, identifies future provision of the Johns Rd supply main 1 and the Lehman's Rd ring main. WDC's network has allowed for capacity to service this site. In summary, there are no water supply constraints that would prevent the proposed land use.

Summary

326. There are no significant constraints that relate to geotechnical conditions, water or wastewater servicing.
327. However, the southern portion of the site is subject to a medium-high flood hazard in the Breakout Flooding Hazard 200 year scenario. It is unlikely the area of medium-high flood hazard can be remedied within the applicant's site, due to the likelihood that construction of an earth bund and/or filling within the main South Brook channel would result in an increased flood hazard to adjacent property
328. It is noted for the record that additional stormwater management areas may be required to service the areas covered by submissions 199 and 223, which could be added to the ODP, noting the limitations on areas that can be developed for residential land use.

WAIMAKARIRI DISTRICT COUNCIL

MEMO

FILE NO AND TRIM NO: DDS-14-13-03 / 240522082326

DATE: 15 July 2024

MEMO TO: Peter Wilson, Principal Policy Planner

FROM: Shane Binder, Senior Transportation Engineer

SUBJECT: Stream 12E - Transport Advice

Submission 213 – 70 Oxford Road

Note these comments cover both 70 Oxford Rd (submission 213) and Brick Kiln Ln (submission 319) grouped together in one site.

- I consider it critical to implement an ODP for this area to manage infrastructure development over the individual lots that make up the entire site (including 70 Oxford Rd), which may be intensified at different times, and do not all have direct road access to Oxford Rd. I also note the operative West Rangiora structure plan does not include any provision for a transport network north of Oxford Rd so I do not consider it fit for purpose if this site is to support intensified development.
- As discussed elsewhere, I would also recommend that the overall pattern of development seek to minimise sections without road frontages (e.g., sections that access public roads through narrow ROWs or long driveways) given the safety and operational effects of those accesses.
- In order to preserve the operational priority of a Strategic Road and minimise safety risks from turning traffic, I do not support creation of any additional accesses onto Oxford Rd and would further support access consolidation and elimination, especially in light of the potential to substantially increase traffic using these accesses if the site is intensified.
- The Proposed District Plan allows for 125m spacing between road intersections on Strategic Roads, which would allow for up to two new intersections. However, I note TRAN-P4 ("New Activities") directs access to be provided to frontages with the lowest available classification roads. I note the site has frontages on Charles Upham Drive and Westpark Blvd (through a Council stormwater pond), both of which are classified lower than the Strategic Oxford Road. I also note the presence of on-street cycle lanes on Oxford Road and would seek to minimise new conflict points. I would consider primary vehicular access to the site from these two frontages to be a far better and safer outcome for the network and future residents than a new road intersection(s) on Oxford Road.
- With respect to 70 Oxford Road specifically, I note an active resource consent exists under the operative District Plan for residential intensification. I consider it to be a safer and operationally superior outcome for development on this section to be coordinated with the rest of the Brick Kiln Lane site, including consolidating any public road access from Oxford Rd to one intersection.
- I also consider it important that if any or all of these sites are to develop with intensified residential development, that they be interconnected with the existing roading network on all sides (e.g., not just to Oxford Road) and interconnected with existing footpaths and cycling facilities.

Submission 247 – Dalkeith – West Rangiora

- This is within the existing future urban development area (FUDA) so I have reserved my additional comments only to scope beyond original analysis.

- I consider that the medium density areas explicitly noted in the West Rangiora ODP are important to maintain as this density needs to be concentrated along a “primary road” in order to best create the demand for future public transport (PT) service and walking and cycling facilities. Dispersed medium density development is not as efficient to service with new walking, cycling, or PT networks.

Submission 246 – Hales – West Rangiora

- This is within the existing future urban development area (FUDA) so I have reserved my additional comments only to scope beyond original analysis.
- I note that while the existing roading network would provide service for private motor vehicles generated by ad hoc development, I consider there is no appropriate walking or cycling infrastructure to connect ad hoc development to the existing walking/cycling network. By definition, this also applies to PT access, as new PT service is unlikely to occur for limited ad hoc development.
- I also consider that the medium density areas explicitly noted in the operative ODP are important to maintain as this density needs to be concentrated along a “primary road” in order to best create the demand for future PT service and walking and cycling facilities. Dispersed medium density development is not as efficient to service with new walking, cycling, or PT networks.

West Rangiora Development Area – 20-24 Angus Place

- I have reviewed the existing and future transport provision around 20 and 24 Angus Place (sections subdivided as part of the Townsend Fields development) as well as the South West Rangiora ODP. The ODP is excerpted below:

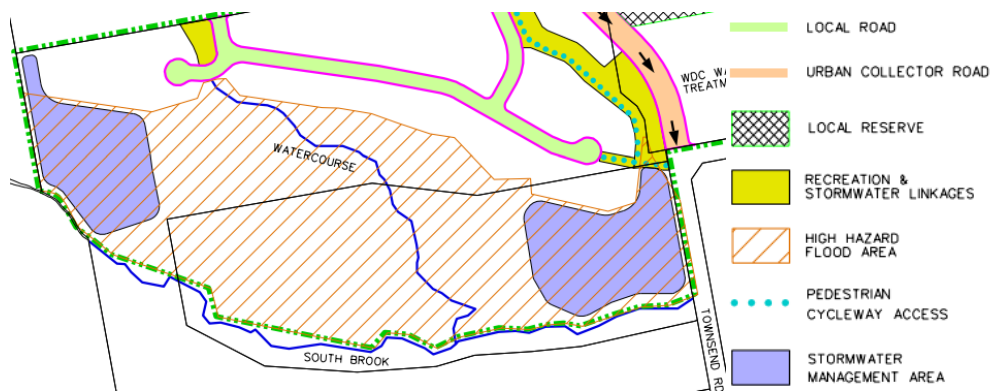


Figure 1: South West Rangiora ODP (excerpt)

- I note the land in 20 and 24 Angus Place was designated a “high hazard area” and the associated local road network was laid out without access across the tributary of the South Brook. I understand the master plan for Townsend Fields (last updated in 2021) generally adheres to the ODP roading network in this area, i.e., access across the tributary is chiefly cut off by residential sections, as shown on the next page.



Figure 2: Townsend Fields master plan, 2021 (excerpt)

- I also note that the land to the south of the South Brook is zoned Rural and lays outside Rangiora's Infrastructure Boundary. I consider that the land south of the South Brook tributary is not well-connected with the Townsend Fields development and will not likely be connected to any development to the south. As such, I consider intensified residential development in this area to be a poor outcome from a transportation perspective.

Bellgrove

- I strongly encourage that placement of higher-density MRZ take into consideration the need and benefit of close proximity to public transport and regional cycling links. In this instance, Kippenberger Ave will likely have the only PT service and Grade 1 (highest level) cycleway in the ODP area. Higher density development in close proximity to PT and cycle facilities both increases the number of households that can realistically take advantage of these modes as well as creating higher demand for them.
- I strongly encourage a secondary road network that maximises number of sections with direct road frontage and minimises long driveways and ROW-based development.
- The ODP needs to include cycle facilities along both Northbrook Rd & Kippenberger Ave frontages to give effect to the Walking & Cycling Network Plan.
- The proposed ODP is missing an extension of the existing connection off Goodwin St (between #24 & 26)
- I would recommend against the proposed 4-way intersection at Devlin & Cassino or as shown with the internal secondary roads. 4-way crossroads are not recommended due to the higher number of conflicts between turning vehicles.
- I acknowledge that the existing structure plan shows a primary road corridor extending south from Devlin Ave to Boys Rd, crossing Northbrook Rd at its present 30-degree bend. The likely resulting intersection geometry and compromised sight-lines are such that I strongly recommend that a roundabout be constructed at this location.

West side of Golf Links Rd (#8 to 59)

- I note the Golf Links Rd frontage will require substantial urbanisation, likely to include a shared use path to give effect to the Walking & Cycling Network Plan.
- The intersection with Rangiora-Woodend Rd and Kippenberger may continue to operate within acceptable vehicular levels of service (although I have not undertaken a quantitative assessment to validate this). However, I consider it will likely require improvements to improve safety (given the presently high inbound speeds on Rangiora-Woodend Rd, the angled approach geometry, and sight-line constraints) and walking/cycling connections to the Rangiora-Woodend Path. These improvements could range from a series of raised islands to a roundabout.
- Should these properties develop, it would be best to minimise the number of access points onto Golf Links Rd, given its relatively higher speed environment, and channelise most new traffic west through future Bellgrove development and east through limited road

intersections to Golf Links Rd. This east-west connectivity should be included in future planning at Bellgrove.

Submission 179 - Hobson & Whimp - 4 Golf Links & 512 Rangiora Woodend Rd

- This site is located adjacent to existing bus, walking/cycling, and vehicular routes on Rangiora-Woodend Rd so is thus well served by all modes. I do note it is some distance (2.5km) to the town centre and (3.0km) to nearby schools, but is still generally considered to be appropriate for non-car travel.
- At present Rangiora-Woodend Road is a high-speed rural road with sight distance limitations around the corner at Golf Links Road, so I would recommend that the existing property access (#518) be closed and no more than one new access be permitted to Rangiora-Woodend Road. I consider any access to side roads (e.g., through 4 Golf Links Rd or 6 Marchmont Rd) to have fewer traffic safety risks.
- I consider it important that should any development occur in this area, that future connectivity to the north and east be allowed for.

Submission 391 – Kelley – 479 Rangiora-Woodend Road

- I have reviewed the existing and future transport provision around 479 Rangiora-Woodend Road as well as the South East Rangiora Development Area. The Development Area is excerpted below:

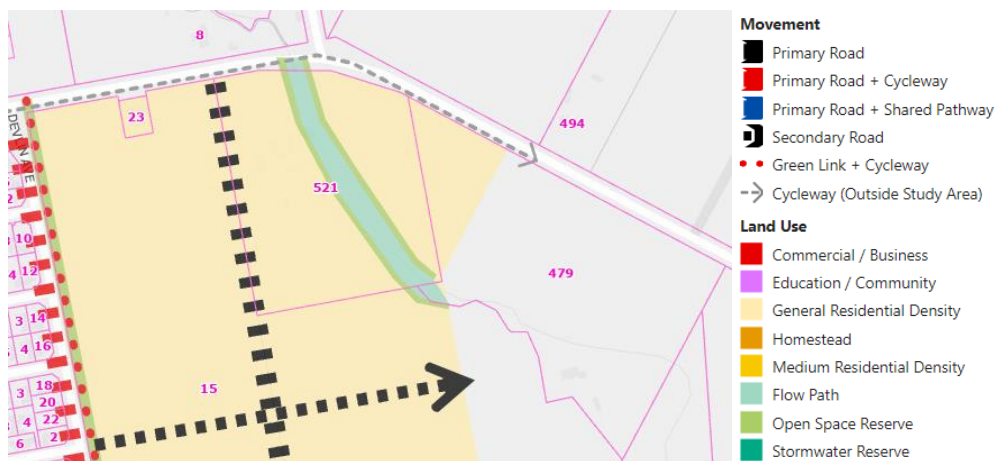


Figure 1: South East Rangiora Development Area (excerpt)

- As shown above, the Development Area plan did not envision any road crossing of the Cam River. I understand that an ODP for the land to the west proposed by Bellgrove South does not include any internal transport connections across the Cam River (to either #479 or 521). I also note that safe access to the portions of 479 and 521 Rangiora-Woodend Road will be challenging to achieve, given the limited sight distance around the corner at the Golf Links Road intersection and the relatively higher 80 km/h speed environment.
- I also note that the land to the south, east, and west of the site is zoned Rural and lays outside Rangiora's Infrastructure Boundary. I consider that the land east of the Cam River is not well-connected with the South East Rangiora Development Area and will not likely be connected to any development to the south, east, or west. As such, I consider intensified residential development in this area to be a poor outcome from a transportation perspective. I would also recommend limiting, as much as practicable, any new access to Rangiora-Woodend Road that cannot be a safe distance away from both the corner and intersection at Golf Links Road.

Submission 125 - Fechney - Chinnerys Rd

- Given the intensification on all sides, I would generally support this location being included as GRZ.

- I note that Chinnerys Road will likely require road reserve widening and substantial urbanisation – footpaths, widening, kerb/channel, lighting, street trees – and this may be better organised on an area-wide basis rather than per section as each develops.
- I note that based on existing background traffic volumes on Chinnerys Road that the intersections with Rangiora-Woodend Rd and Main North Rd may require improvements in the future, and additional traffic from this area is likely to accelerate these improvements. However, this is not in and of itself a reason to decline this submission.

Submission 201 – Hack – Parsonage Road

- This site is served by one road only (Parsonage Rd) which has some operational constraints along its length to Main North Rd. As a result, improvements will be required to provide appropriate service for all modes - Stopforth St intersection improvements, continuous footpath, carriageway widening, utility relocation/undergrounding. However, in general I consider that Parsonage Road should be able to accommodate the traffic generated by this site.
- Development of this site will likely require more road reserve width (as has been proposed by the applicant) to achieve space required for an appropriate roading connection and termination (e.g., cul-de-sac)
- I would suggest that development in this area would be best served to extend to 100/107/115 Parsonage Rd, 112 Eders Rd, and 124 Gladstone Rd. I would also recommend preserving corridors for a future roading connection to Gladstone Rd and a future non-motorised trail connection to a potential cycle way along the Woodend Bypass.

Submission 214 – Stokes – Gressons Road

- From a transport servicing perspective, the proposed ODP has a good arrangement limiting access to/from SH1 but concentrating on via Gressons Rd and central Ravenswood area. Waka Kotahi is very sensitive to operational and safety impacts to the State Highway from additional accesses which the proposed ODP appears to limit.
- I consider that this area at present is not well served for walking, cycling, or PT, and has reasonable constraints on private motor vehicle service. However it is proximate to higher-service networks so will require some investment in connections to enable service in this area. I consider this to be entirely surmountable.
- I recommend not having a road access opposite the existing Macdonalds Lane intersection; four-way crossroads perform relatively less safely due to turning conflicts.
- I recommend cycleway connections be included in the ODP along the State Highway and Gressons Rd frontages.

Submission 215 - Woodwater - South of Woodend - RLZ pocket (incl. S 77)

- I consider this area to be appropriate for GRZ given the potential for connections to the existing transport connections. I am not sure that it would be sufficiently well connected for MDRZ intensification based on the following constraints (unless they are remedied)-
 - Judsons Rd, the only existing road servicing the bulk of the site, has a legal width far below District Plan requirements (10m) and is not sufficiently wide to provide appropriate access for substantial development
 - Judsons Rd also accesses only to Woodend Beach Rd, which has capacity constraints at the existing intersection with Main North Rd
 - There are very limited non-motorised connections (none on Judsons Rd and only far side footpath on Petries Rd) with the broader network (and existing PT stops and cycle facilities)
- If further development is to be allowed in this area, I strongly recommend creation of an ODP including further connections from Judsons Rd to Petries Rd and Copper Beech Rd as well as consideration of widening of the Judsons Rd legal road width.

Submission 332 – Mike Greer – South Kaiapoi

- I consider that this site is relatively well-served by public transport (bus service on Main North Road) and cycling/walking (Main North Rd path is across from the site).
- I note comments on other sites around future capacity constraints at the Tram Road interchange will apply in this instance, given what I understand as a relatively high likelihood of cumulative effects at the interchange from all new development served by Tram Road on both sides of the SH1 corridor. However at this time, I do not have a quantitative upper limit to the Tram Road motorway interchange.
- While the proposed development scheme shows a “recreation reserve” between the site and Main North Road, I consider that some degree of urbanisation of the frontage will still be necessary, potentially including a walking/cycling facility, crossing points, street lighting, street trees, and kerb/channel, and possibly widening of the road reserve.
- The southern access should be moved from where shown. Cross-roads intersections are not recommended due to the higher risk of conflicts from turning traffic so I would recommend two staggered t-intersections (from the paper road opposite)
- Research has established a pretty strong correlation between New Zealand’s high rate of driveway run-over paediatric fatalities and shared accesses with limited green space. This applies to the north-east and south-west corners of the development – Lots 16-20, 21-23, 25-33, and 180-186. In general I would not support ROW-based urban form, especially where the section sizes are so small.
- It is also worth noting that a ROW by definition poorly provides the functions of a road – on-street parking, street trees (with stormwater attenuation, pedestrian shading, heat island dissipation, and speed slowing effects), separated footpaths, street lighting, and sufficient sightlines – so properties that are accessed by ROWs receive a lower level of service.

Submission 239 - Williams Waimak Ltd

- I consider that this site is relatively well-served by public transport (bus service on Williams St) and cycling/walking (Main North Rd path is across Williams St from the site).
- I note there are two apparent connections to the site – Stone St and the primary access to Williams St. The end of Stone St has a 20m wide road reserve, which meets proposed District Plan requirements. The access to Williams St appears to be 15m wide and does not meet operative or proposed District Plan width requirements, which could impose some restrictions on the elements that could be included in a public road here.
- I also note that any connection to Williams St will be opposite but not aligned with Vickery St. This alignment is such that it is not possible for through traffic (i.e., Vickery to/from Blue Skies) to travel straight across Williams St but it also does not appear to be possible to meet the Austroads recommended minimum distance between staggered t-intersections (AGTM06, section 3.2.7). This arrangement does create a potential safety risk.

Submission 31 & 261 - Kaiapoi Lakes - West of Sovereign Palms

- In order to preserve the operational priority of a Strategic Road and minimise safety risks from turning traffic, I generally do not support creation of any additional accesses onto Williams St and would further support access consolidation.
- I note that The Lakes chiefly has privately-maintained ROWs and would counsel caution before additional subdividing is encouraged with access via private roads.
- I note that Lees Road will require substantial urbanisation - carriageway widening, footpath, kerb and channel, illumination, street trees, etc.

Submission 367 & 121 - 261 Giles Rd

- I note this appears similar to RC215675.

- I consider that this property has limited appropriate access for private motor vehicle and no appropriate access by any other modes (e.g., public transport, walking, or cycling) at present.
 - At present there is no access to Ohoka Road (the existing access is off Giles Road) and I would not support any new access to Ohoka Road, given that it is a high speed Arterial Road
 - Given the site is disconnected by Ohoka Road from the cycling and walking access in Silverstream, as well as PT service there, I consider it likely that future occupants of any residential use of this site will travel chiefly by private motor vehicle.

Submission 181 - North Rangiora Developments Ltd

- This site is located adjacent to existing bus service on River Road/West Belt so has reasonable public transport service (albeit not high frequency at present). I do note it is some distance (3.0km) to the town centre, but is still generally considered to be appropriate for travel by bicycle (although a bit far for the average walking trip). I also consider that West Belt, River Road, and downstream links have sufficient existing capacity to accommodate new private vehicle traffic generated by development under this submission
- River Road and West Belt are intended to have higher-quality cycling facilities as part of the Walking & Cycling Network Plan, but as yet, this area is not well served by appropriate cycling facilities.
- I would strongly urge an ODP be developed for this area, with several key elements considered:
 - Broader network connectivity, including to the new North West Arterial Road
 - Local road connections (given the existing block sizes are inappropriately large)
 - Pedestrian connectivity independent of vehicle links (e.g., through the top of any no-exit roads, along drains and other street-to-street connections)

WAIMAKARIRI DISTRICT COUNCIL

MEMO

FILE NO AND TRIM NO: DDS-14-13-02 / 240521081138

DATE: 15 July 2024

MEMO TO: Peter Wilson, Principal Policy Planner

FROM: Jon Read, Green Space & Community Facilities Planner

SUBJECT: Proposed District Plan Rezoning Requests
Stream 12E – Green Space

STREAM 12E EVIDENCE

Dalkeith and Hales Submissions (West Rangiora)

In the event of a zone change and future residential development of land subject to the Dalkeith and Hales submissions, the provision of Council neighbourhood park space will be triggered under the West Rangiora Outline Development Plan. To adequately meet Council levels of service, a 1.5-hectare green space is required. This area is needed to provide a community park space of 0.7 to 0.8 hectares; and a similar-sized area of additional green space for the future development of a Council community facilities hub. This hub is required to service long-term population growth in the West Rangiora area. Council currently owns the parcel of land envisaged to meet these public space provisions; 89 Oxford Rd (Pt RS 936 /4.11ha).

If residential density is similar to that of the adjacent Oxford Estates development, then the park space outlined will be adequate to service the Dalkeith and Hales submission areas; plus, any further residential development of land within the ODP area bordered by Johns, Lehmans and Oxford Roads. This is over and above any green linkages/walkways and stormwater management areas required.

Waimakariri District Council's level of service requirements for neighbourhood park access in urban and suburban areas is...Most residents to be within 500m, or a 10-minute walk, of a neighbourhood park; and 1.0ha of neighbourhood park space to be provided per 1,000 residents (approx. 420 dwellings).

The Acacia Reserve neighbourhood park within the adjacent Oxford Estates development does not have capacity to absorb any further residential development under Council's service provision guidelines. Ultimately, residents will move between the different areas at will. This is beneficial to wider community integration.

Sparks (East Rangiora)

The key greenspace level of service requirements for this ODP/Structure Plan area are neighbourhood parks, provision of full 20m esplanades (Southbrook Stream), and green (off road) recreation linkages. The location of the two parks north of Boys Rd is acceptable as indicatively shown on the ODP...with the primary (community- catchment) park being centrally located. If this site is zoned residential, the overall park provision needs to meet Council's key level of service requirements i.e. Most residents to be within 500m, or a 10-minute walk, of a

neighbourhood park; and 1.0ha of neighbourhood park space is to be provided per 1,000 residents. In addition, the minimum size for a neighbourhood park is 0.3ha. If rezoning and significant residential development is intended south of Boys Rd, this will trigger a requirement for a further neighbourhood park. The physical barrier of Boys Road requires this. This park will require well-drained and relatively flat land.

Bellgrove South

The proposed green linkages, cycleway and esplanade reserve provision in this proposed residential development area are advocated and supported by Council Greenspace. The indicative Open Space Reserve is appropriately located for wider community access. Ultimately, the size of this open space reserve (neighbourhood park) will need to comply with Council's Park Levels of Service guidelines. These state that most residents are to be within 500m, or a 10-minute walk, of a neighbourhood park; and 1.0ha of neighbourhood park space is to be provided per 1,000 residents (approx. 420 dwellings) The accessibility distance is fully achieved across the ODP area, but the size of the park space is to be determined.

West side of Golf Links Rd (#8 to 59)

In any residential development of this area, 20-metre-wide esplanade reserve provision is a District Plan requirement along both sides of the Cam River waterway. The Taranaki Stream corridor further to the north will also require adequate stream bank margins to facilitate drainage maintenance access, public access and ecological restoration. The likely population of this area, if zoned residential, will also trigger a requirement for a small neighbourhood park (minimum 0.3ha). If the site is developed by Bellgrove, this park could be considered in a wider provision context i.e. location could potentially be within or outside of the site as long as it meets community accessibility requirements for the intended catchment area.

Doncaster (North-West Rangiora)

In isolation, this submission proposal does not trigger a requirement for any additional neighbourhood park green space if rezoned General Residential. The site's transmission line margin is also not required for Council community green space. This has already been provided for within the existing Council-owned transmission corridor land immediately to the south-east. Being adjacent to the 'future road', this land will ultimately form part of a strategic community recreation linkage reserve (walkway-cycleway) running between Lehmans Road and West Belt.

70 Oxford Road

No public greenspace is required in association with this proposal. I have provided feedback to Council Project Development Unit staff on appropriate street frontage treatments and tree provision in lieu of a street tree requirement within their development frontage. In my view, this will help mitigate visual impacts of the proposed medium density residential development.

Hack (100 Parsonage Rd)

There are no public greenspace provision requirements in relation to this submission. The retention and protection of any listed Notable Trees is required in the event of a zoning change and residential subdivision. Should rezoning occur, it is advocated that significant trees be retained where feasible to offset the inevitable change from rural to residential character.

Woodwater (110 Parsonage Road)

The provision of one or two neighbourhood park spaces will be required if this large area is rezoned and developed for General Residential living; with a portion potentially being rezoned as Large Lot Residential land. The number and location of these parks will need to meet

required park levels of service standards. i.e. most residents to be within 500m, or a 10-minute walk, of a neighbourhood park; and 1.0ha of neighbourhood park space to be provided per 1,000 residents. In addition, the minimum size for a neighbourhood park is 0.3ha. Depending on the intensity of development and associated population, meeting this provision could require either one centrally located large park, or two smaller parks distributed for easy community access across the development. The priority location for parks is within medium density and general residential areas, with any large lot residential living being closer to the margins of accessibility if necessary.

The nearby Council owned Panckhurst Reserve caters for existing residents in the area north of Judsons Road. It has no capacity to absorb new residential development.

A green linkage network is required to provide adequate off-road connectivity within the proposed rezoning areas. Restoration of the McIntosh Stream corridor is a key element. It will help facilitate community development, recreational opportunities and environmental enhancement. The denuded wetland sites should be retained in the interim until further ecological assessments are made regarding their values.

Momentum & Suburban Estates

In the event of a zone change and residential development of land subject to the Momentum and Suburban Estates submissions, provision of neighbourhood park greenspace is already anticipated by the applicable Structure Plan and proposed Outline Development Plan. Depending on residential density, the two parks proposed may not be adequate to meet Council's level of service requirements for neighbourhood park provision. Any required increase can be achieved by enlarging the proposed park sites, or via the addition of a further park within the proposed ODP area. Requirements can be calculated by referencing Waimakariri District Council's level of service requirements for neighbourhood park access in urban and suburban areas. This requires most residents to be within 500m, or a 10-minute walk, of a neighbourhood park; and 1.0ha of park space to be provided per 1,000 residents (approx. 420 dwellings). In addition, the minimum viable size for a neighbourhood park is 0.3ha.

The priority location for parks is close to medium density areas and within required access distance of general residential sites. Connectivity with a road frontage and green off-road linkage networks is advocated. Community connection to an enhanced McIntosh Stream corridor will be important in activating recreational opportunities and environmental enhancements that promote community development and interaction.

Mike Greer (South Kaiapoi)

The overall level of green linkage reserve provision and associated connectivity is appropriate for a proposed medium density residential zone. In combination, the linkages provide landscape amenity and associated recreation benefits, along with the potential for revegetation and ecological enhancement of the Kaikanui and Courtenay Streams. The appropriate vested status of these sites can be confirmed at subdivision stage. Beyond boundary treatments, a well-designed amenity streetscape will be critical in breaking up the built-form dominance of the development's interior. This is a level of service requirement for Council streetscapes.

The proposed recreation reserve (neighbourhood park) in the north of the development is appropriately located in terms of setting but is under-sized based on Council parks level of service requirements for the proposed resident population. With the indicative residential lot overlay, it also has an unnecessary semi-private context. These issues can be resolved if the

extended row of small residential lots is pulled back from the park space or otherwise redistributed to provide a more open and accessible feel to the neighbourhood park as a wider community destination. Council's requirement for neighbourhood park provision is most residents to be within 500m, or a 10-minute walk, of a neighbourhood category park; and 1.0ha of park space to be provided per 1,000 residents. Given lot numbers, this suggests a park space of approximately 0.4 to 0.45 hectares at this site...exclusive of the esplanade and rail buffer margins.

Fechney et al (Chinnerys Rd)

In isolation, this submission proposal does not trigger a requirement for any additional public park space if rezoned as General Residential. A large area of neighbourhood park open space is available within the neighbouring Grange View Reserve. This park is easily accessed by any of the three entry/exit points that bisect and surround the current subject sites. In addition, the stream esplanade walkways located directly across Chinnerys Rd will be readily accessible once this stage of the Ravenswood development is completed.

If the rezoning goes ahead, the retention of any notable or high value landscape trees is advocated to help retain valuable landscape amenity where practicable. This would also benefit the adjacent park setting.

Hobson and Whimp (4 Golf Links Rd & 518 Rangiora-Woodend Rd)

Assessed in isolation a rezoning of this site to General Residential does not trigger the provision of a public neighbourhood park. As a proposed satellite development within a currently rural zone, the population catchment will likely be less than the 250-300 residents required to trigger public park provision for the community. It is difficult for Council to efficiently and effectively plan for – or commit to – public community green space provision in outlying or isolated sites where future surrounding growth is uncertain or disconnected. Investment without the discipline and guidance of wider Structure and Outline Development planning is prone to risk and unsatisfactory outcomes for both Council and the subject community. For this reason, outlying stand-alone residential zones with limited or no access to existing key community resources such as parks are not advocated.

WAIMAKARIRI DISTRICT COUNCIL

MEMO

FILE NO AND TRIM NO: DDS-14-13-03 / 240716116524

DATE: 12 July 2024

MEMO TO: Peter Wilson, Principal Policy Planner

FROM: Chris Bacon, Network Planning Team Leader

SUBJECT: Residential Rezoning Proposal for 20 and 24 Angus Place, Rangiora

Peter

As discussed, I have reviewed the proposal to rezone the land at 117 and 113 Townsend Road (now 20 and 24 Angus Place) in respect to the underlying flood hazard from an Ashley River Breakout.

These properties are both under the flowpath from an Ashley River breakout and are shown as having significant areas of Medium Flood Hazard in both the 200 year and 500 year flood events. Under an Ashley River breakout scenario both parcels of land would be subject to significant flood velocities exceeding 1.0 m/s. Refer to Figure 1 for the model results.

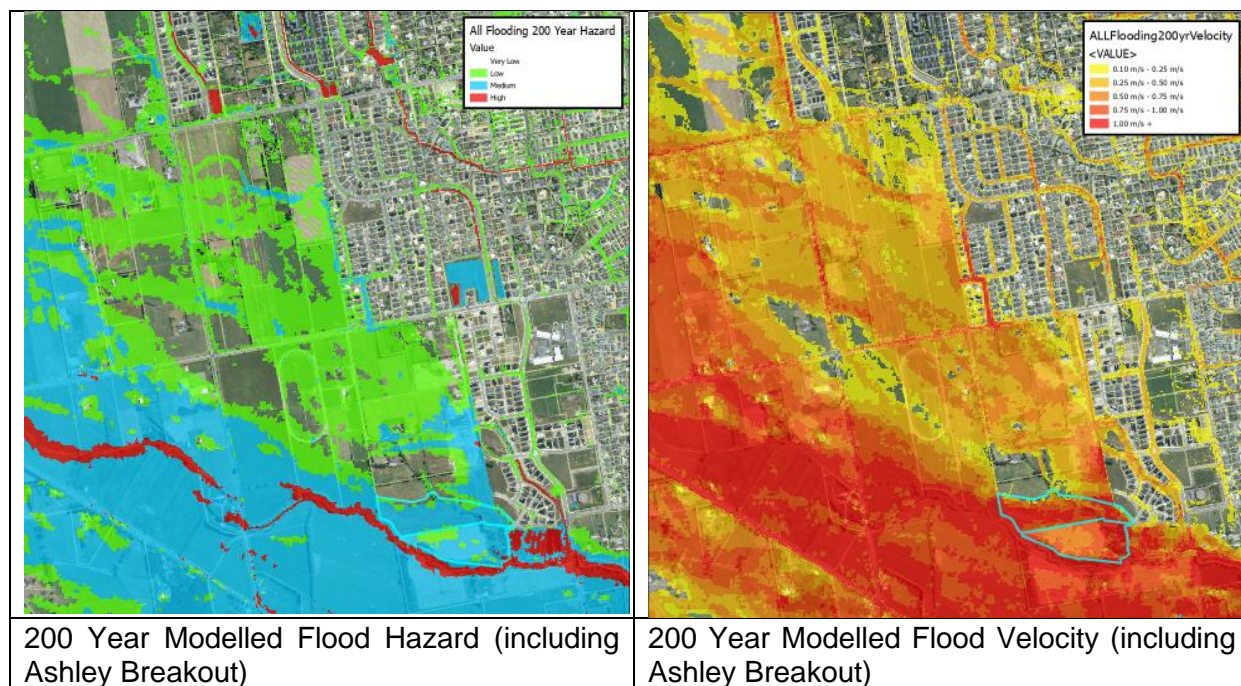


Figure 1 - 200 year Model Results

In my opinion it would be impractical to mitigate this flood hazard. Any attempts to raise the land or provide for a bund to the west would impact severely on neighbouring properties to the south and would represent an obstruction to the Ashley River Breakout pushing the primary breakout channel further south. Without better understanding the impacts of such works on these neighbouring properties and the larger flood channel it would be inappropriate in my opinion for the Council to support a residential rezoning request in this area.

It is noted that Townsend Fields have previously undertaken works to mitigate a much smaller flood hazard to the north of these sites by constructing a temporary bund and diverting floodwater through this area. It is also noted that future plans to develop land east of Lehmans Road may also feature a bund to divert secondary flowpaths from the Ashley Breakout.

The key difference with the Townsend Fields works and the future planned works along Lehmans Road is that it is mitigating secondary flowpaths from the breakout flow and diverting them back into the primary channel. Any works on the properties at 20 and 24 Angus Place would be interfering and diverting the primary flood channel.

I also note that the dynamics of the flood hazard in West Rangiora is very different to the flood hazard in Northeast Kaiapoi. In the Northeast Kaiapoi area the flood hazard on the undeveloped land has been assessed as 'High' and is predicted to have much higher flood depths than those predicted in the West Rangiora area from the Ashley Breakout. The flood hazard in West Rangiora is largely due to fast moving water with moderate flood depths. However the flood hazard in Northeast Kaiapoi is largely due to deep ponding water with very low velocities from a combination of Localised Rainfall and Coastal Inundation.

The proposed mitigation measures for Northeast Kaiapoi rely largely on simply raising the land and the effects from this have been assessed and demonstrated to be less than minor on the neighbouring properties. Recent construction of a new flood pumpstation by the Council under the Government's Shovel Ready programme has further helped in providing mitigation for these effects in Northeast Kaiapoi.

The flood effects from partially obstructing and diverting the primary Ashley Breakout flood channel in West Rangiora have not been assessed.