

**BEFORE INDEPENDENT HEARING COMMISSIONERS APPOINTED BY THE
WAIMAKARIRI DISTRICT COUNCIL**

IN THE MATTER OF

The Resource Management Act 1991 (**RMA** or
the Act)

AND

IN THE MATTER OF

Hearing of Submissions and Further
Submissions on the Proposed Waimakariri
District Plan (**PWDP** or **the Proposed Plan**)

AND

IN THE MATTER OF

Hearing of Submissions and Further
Submissions on Variations 1 and 2 to the
Proposed Waimakariri District Plan

AND

IN THE MATTER OF

Submissions on the Proposed Waimakariri
District Plan by **Richard and Simone Black**
(**Submissions 247.1, 247.2 and 265.1**)

**STATEMENT OF MARTIN PINKHAM
ON BEHALF OF RICHARD and SIMONE BLACK
REGARDING HEARING STREAM 12C**

DATED: 12 July 2024

INTRODUCTION

- 1 My name is Martin John Pinkham.
- 2 I have spent most of my career as a civil and environmental engineer. I have a degree in civil engineering from the University of Canterbury, was a Professional Member of Institute of Professional Engineers of New Zealand and a Registered Engineer (prior to title ceasing),, and a former Member of Association of Local Government Engineers. My full qualifications and experience are set out in Appendix J of this statement.
- 3 I confirm that this statement is also prepared in accordance with the Environment Court's Code of Conduct.
- 4 I have prepared this statement regarding Hearing Stream 12C in support of Richard and Simonne Blacks's submission on the Proposed Waimakariri District Plan (**PWDP**) to rezone approximately 11ha at Mandeville from Rural Lifestyle Zone (**RLZ**) to Large Lot Residential Zone (**LLRZ**). The addresses of these properties are 82 and 83 Ohoka Meadows Drive and 859 Tram Road. Authority to present this statement is attached as Appendix A.
- 5 The original submissions are shown in Appendix B. Due to miscommunication between the Blacks and their consultant there was effectively a double up of submissions. This statement is based on amalgamating the submissions.
- 6 I wish the Panel to note that in November 2021 I made submissions to the PDP requesting the rezoning of many areas of land to LLRZ and opposed the rezoning of some areas of land to LLRZ that had been identified in the WDC RRDS. Subsequent to that process my wife and I purchased 859 Tram Road in October 2022 and are currently the owner of that land.
- 7 On 23 May 2024 the Waimakariri District Council (**Council**) released an Officer Report for Hearing Stream 12C prepared under section 42A of the RMA containing an analysis of submissions seeking Large Lot Residential Zone and recommendations in response to those submissions (**Officer Report**).
- 8 The Officer Report recommends that the Black rezoning submissions be rejected. My statement is filed in response to that Report.

SCOPE OF STATEMENT

- 9 In my statement I address the following matters:

- (a) The background to the establishment of 82 and 83 Ohoka Meadows Drive and 859 Tram Road.
 - (b) A response to the Officer Report with particular emphasis on matters where there is a difference of view between myself and the Officer Report.
 - (c) Further details to support the original submissions.
- 10 In preparing this statement I have:
- (a) Reviewed the Officer Report and the Appendices to that Report
 - (b) The Panel's questions to the s42A report writer (Appendix 1 to Minute 27)
 - (c) Reviewed the Officer's preliminary response to written questions on Large Lot Residential Rezoning dated 27 June 2024 (the **Officer's Response**);

CONTEXT AND APPROACH

- 11 As noted above, the Officer Report recommends declining the Black rezoning submissions. A range of reasons are given for this recommendation.
- 12 The approach I have adopted in this statement is to provide context to the location of the properties in question, identify those parts of the Officer Report (including Appendices attached to that Report) where I disagree with the Officer Report, and to explain my reasons for disagreement. There are also some matters noted in the Officer's Response that are relevant, and comments on these provided.

BACKGROUND

- 13 The establishment of 82 and 83 Ohoka Meadows Drive, and 859 Tram Road, came about from a subdivision of Lot 1 DP79267 to create Lots 1 to 3 DP394407 in March 2003. As each of these lots has an area of less than 4ha the consent application was considered a non-complying activity and was subject to an Environment Court hearing. A copy of the subdivision consent is attached as Appendix C.
- 14 The subdivision also created easement for power and telecommunications to each of the lots along the western boundary of the subdivision.
- 15 The conditions of consent required the establishment of rights of way from Ohoka Meadows Drive, and connection to the Ohoka Meadows potable water and wastewater systems. A Section 224c certificate was issued by Waimakariri District Council on 14 January 2010 confirming that these services had been installed, and that the other conditions of consent had been complied with.
- 16 Each of the created lots is liable for water and wastewater rates associated with the Mandeville potable water and wastewater schemes, rubbish collection and drainage, along with district wide rates.

- 17 A Mainpower 11kV power line is located on the western side of the 3 lots. Transformers on this line provide underground 240V power supplies to each lot.
- 18 While each lot is serviced with underground telephone connections AmuriNet have recently installed fibre cable on the surrounding roads and each lot can connect to the fibre network.
- 19 A brief description of each lot and current land use is detailed in Table 1 below:

Table 1 Existing Description and Land Use

Item	Lot 1 859 Tram Road	Lot 2 82 Ohoka Meadows	Lot 3 83 Ohoka Meadows
Size (ha)	3.05	3.64	3.77
Dwelling	Consent to erect dwelling lapsed, new application has been lodged	4-bedroom dwelling	No dwelling
Buildings	3 bay shed	2 large sheds	Large shed
Land use	Abandoned orchard, annual haymaking	Abandoned flower growing, annual haymaking, home business	Light grazing, annual haymaking

- 20 As noted in Table 1 above the land is poorly utilized for primary production with agricultural activities primarily employed to reduce fire risk. This is not untypical of this type of landholding in the Mandeville area.
- 21 Each of the lots is shown as RLZ in the Proposed District Plan. If the landowners request to rezone the land from RLZ to LLRZ is approved the landowners will be required to lodge subdivision resource consents to ensure compliance with the PDP and the WDC Code of Practice. Depending on the configuration of the subdivision there would be approximately 10 new lots created.
- 22 The implementation of the subdivision(s) will require a wide range of services to be constructed and may require upgrading of the water supply pipes in the ROW off Ohoka Meadows Drive, upgrading of the sewer pressure pipes in the ROW off Ohoka Meadows Drive, upgrading of the in the ROW off Ohoka Meadows Drive, the construction of additional rights of way, water pipes, pressure sewer pipes, power supplies and fibre cable ducts.
- 23 In accordance with the WDC Code of Practice any new lots will be required to install a large potable water tank, and an approved wastewater holding tank with its self-contained pump system. Each lot is required to have a contract with an approved wastewater contractor to maintain the wastewater system. All buildings and hardstand areas on each lot would be required to install approved design soakpits to dispose of stormwater to ensure that there is no change in the runoff from each lot.

WDC Rural Residential Strategy (RRDS)

- 24 In 2010 the WDC developed a non-statutory Rural Residential Development Plan (RRDP). This Plan identified Mandeville as a preferred Rural Residential development area, and in particular, south of Tram Road. The area in the southwest area has now been developed but in addition there have been large areas to the northwest of Mandeville (on the north side of Tram Road) that have been developed as rural residential in response to the significant demand following the Christchurch earthquakes, even though they were not identified as part of the plan.
- 25 In 2019 the WDC undertook the development of a new non statutory Rural Residential Development Strategy (RRDS). I participated in this process and in my opinion this process was highly flawed.
- 26 The preliminary assessment was very dismissive of Mandeville as an option. I have enclosed Page 3 of the Preliminary Assessment as Appendix F. I am of the view that the existence of the Mandeville Growth Boundary as a reason for dismissing Mandeville as an option was not logical, especially when it was considered that there were no other Preliminary Criteria triggered.
- 27 The concerns over high groundwater and undercurrents may have applied to some parts of Mandeville but there did not appear to be any detailed investigation of this matter. As the relevant section of Appendix-G-Mandeville-San-Dona-Groundwater-Assessment of the Officer Report has highlighted the areas to the east of the Mandeville Shopping area and south of Tram Road are not considered to be of concern.
- 28 The Hearings Panel that considered submissions to the draft RRDS did not have any expert members and there was very little change from the draft RRDS to the final version.
- 29 As noted in paragraph 210 to 212 of the Officers Report the North Swannanoa area (Area 1 of the RRDS) that was identified for LLRZ under the RRDS is now considered to be unsuitable and is now not recommended for rezoning to LLRZ.
- 30 As noted in paragraphs 383 to 393 of the Officers Report part of the Oxford area (Area 2 of the RRDS) that was identified for LLRZ under the RRDS is now considered to be unsuitable and is now not recommended for rezoning to LLRZ.
- 31 It is also noted that the landowners of Area 4 Gressons Road of the RRDS have requested alternative GRZ and MRZ zonings for 140ha of their land to the south of the Gressons Road LLRZO. This is inconsistent with the RRDS strategy of not having LLRZ zoning adjacent to GRZ and MRZ zones. It has been a consistent, and problematic, issue in Waimakariri District of landowners with LLRZ properties adjacent to GRZ and MRZ zones wanting to subdivide their land. This causes major issues for retrofitting urban services and altering the nature of the roads and streets from the distinctive LLRZ style to a fully urban style.
- 32 In summary, the assessments of the Officers Report has highlighted that the non-statutory 2019 RRDS prepared by WDC has numerous and significant flaws. There are many areas identified for

LLRZ zoning in the RRDS that have now been dismissed, but there are likely to be many areas where LLRZ zoning has been requested that will meet the criteria detailed in UFD-P3 Identification/location and Extension of Large Lot Residential Zone areas. It is my opinion that the RRDS should be given little weight when considering requests for LLRZ rezoning.

RESPONSE TO OFFICER REPORT

33 The Officer Report makes the following comments:

5.3.1 Matters raised by submitters

164. *Richard Black [247.1], [247.2], and Richard and Simone Black [265.1] requests that 82 Ohoka Meadows Drive, 83 Ohoka Meadows Drive and 859 Tram Road be rezoned from RLZ to LLRZ (Figure 6). No supplementary information was provided with the submission.*



Diagram 1

From Officer Report

165. *I note that with respect to 82 Ohoka Meadows that this site was the subject site considered under Black v Waimakariri District Council which I have previously referenced.*

- 34 The Black vs Waimakariri District Council Environment Court decision, is included as Appendix O of the Officer Report. The Environment Court decision of 29 May 2014, after a drawn out process, resulted in the Blacks being declined relief from WDC Plan Change 32 which established the Mandeville Growth Boundary (MGB) as shown as WDC Planning Map 167 Mandeville North Growth Boundary.
- 35 Paragraphs 76 to 79 of the EC decision highlight that, to quote Judge Newhook, *"That would have been a fine call....."* noting that the low level of environmental effects of aligning the MGB boundary to include the Black property had to be balanced by Policy 6.3.9 of the Canterbury Regional Policy Statement (CRPS) which required Rural Residential (as it was called then) development to be in accordance with an adopted Rural Residential Development Plan (RRDP). In this case the judge was referring to the 2010 WDC RRDP. Judge Newhook also noted that *"the RRDP was never intended as a statutory instrument under the RMA, was never put through the Schedule 1 RMA processes"*.
- 36 The impetus for Plan Change 32 appeared to stem from a desire of the WDC to limit the expansion of the Mandeville area following a rash of plan changes to the north and southwest of Mandeville in response to a significant demand for rural residential property following the Christchurch earthquakes. The establishment of this MGB appears to have been quite arbitrary as

it included areas that were zoned Residential 4A and 4B, and it effectively became the de facto RRDP for the Mandeville area.

37 Judge Newhook also noted *"We are also left slightly wondering in policy terms how the limitation of rural residential growth around small settlements in Waimakariri District derives from the need for emergency legislation for recovery from the Christchurch earthquakes"*

38 It is my view that the current process of developing a new District Plan should not necessarily be bound by the Black vs Waimakariri District Council Environment Court decision as there is a completely different framework in place. For example, the previous Residential 4B zoning of the Ohoka Meadows development is now shown as a LLRZ zone in the PDP. In addition, the PDP contains UFD-P3 Identification/location and extension of Large Lot Residential Zone areas with clear criteria for where LLRZ should be established.

39 Diagram 2 below, is taken from part of WDC Planning Map 167 Mandeville North Growth Boundary dated 17 November 2014 and shows the location of the requested LLRZ rezoning. The full drawing is shown in Appendix C of this statement.

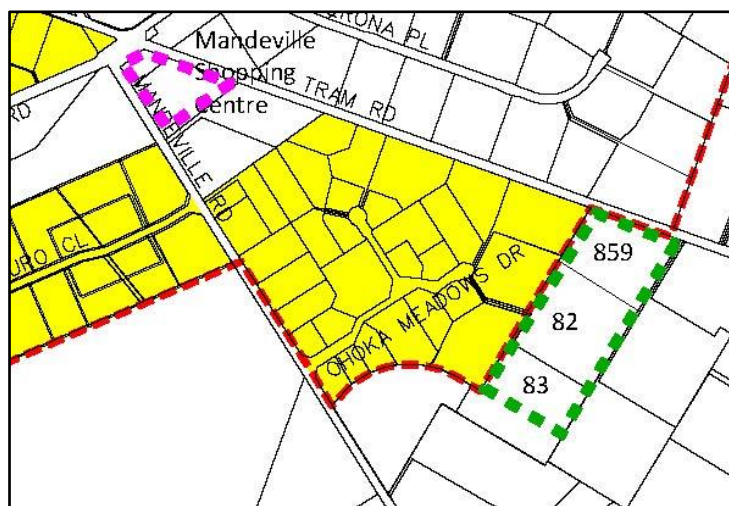


Diagram 2

From WDC Planning Map 167
Mandeville North Growth
Boundary dated 17 November
2014

40 The following paragraphs discuss the assessment made in the Officer Report.

5.3.2 Assessment

166. *The area comprises three properties located to the south of Tram Road. The total area is 11ha, and they are not serviced with water or wastewater. There is an intensive poultry operation approximately 180m to the south of the southernmost property. The northern most property has low levels of flooding risk. The properties are outside of the Mandeville Growth Boundary.*

41 Firstly, as noted in the Background above, each of these three properties are fully serviced with water and wastewater from the Mandeville schemes through the right of way off Ohoka Meadows Drive and are effectively part of the Ohoka Meadows development. The properties are also well serviced with power and communications with appropriate easements in place. In addition, the Council's Activity Management Plans for both potable water and wastewater schemes have provision for growth in both schemes. I will discuss the servicing aspects of the requested rezoning in a further section of this statement.

42 Secondly, the intensive poultry operation only affects part of 83 Ohoka Meadows Drive but does not affect 82 Ohoka Meadows Drive and 859 Tram Road. It is acknowledged that the 300-metre

setback required in the Operative District Plan, and the Proposed District Plan, would limit the scope of LLRZ development of 83 Ohoka Meadows Drive and this is shown on the diagram above.

- 43 Thirdly, the low levels of flooding risk noted regarding the northern property (859 Tram Road) is one of two narrow overland flow paths running parallel to Tram Road, and as shown on the diagram below. Avoidance of these overland flow paths to construct dwellings on 5000m² lots would be simple and is a common practice in rural and rural residential developments. As shown on the Diagram 3 below the risk of flooding is less than many areas of Ohoka Meadows.



Diagram 3

200 Year All Flood Hazard Risk from Waimakariri District Natural Hazards Interactive Viewer (green is Low Hazard)

164. *The proposed rezoning is inconsistent with Policy 1 of the NPSUD as it does not meet the requirements of contribution to a well-functioning urban environment, in that it does not have good accessibility to jobs and community services, and does not support a reduction in GHG emissions. The rezoning does not meet the requirements of Policy 6.3.9 RPS, in that it was not identified in the RRDS, there is insufficient capacity in the wastewater network for it to be serviced, it could potentially result in reverse sensitivity effects on primary production, and no ODP was provided.*

- 44 Firstly, it is my opinion that Policy 1 of the NPSUD does not apply to the requested rezoning to LLRZ. The Officers Response has also concluded that LLRZ should not be considered to be urban, and therefore Policy 1 of the NPSUD is no longer relevant.
- 45 Secondly, as shown on Diagram 2 above the requested LLRZ zoning is located immediately adjacent to an existing LLRZ zone (Ohoka Meadows). The location of this requested LLRZ rezoning is within 500m of the existing Mandeville Shopping Centre, the existing service centre for this part of the district. Ohoka Meadows Drive is off Mandeville Road and is almost opposite the entrance to the Mandeville Recreation Area, the main sports and recreation facility for the local area.
- 46 The requested LLRZ rezoning is 8.4km from the SH1 / Tram Road interchange. This location is as close to Christchurch than any other requested new LLRZ zone in Waimakariri District. It is noted that almost all the lots within the Mandeville Growth Boundary (MGB), as shown as WDC Planning Map 167 Mandeville North Growth Boundary, have been developed. As other submitters have noted there is a significant demand for LLRZ type properties in the Waimakariri District, and that

potential new residents are generally not interested in purchasing 4ha lots as they only wish to purchase a lot that provides more space than a residential lot in Christchurch and local towns. Many of these new residents purchase LLRZ type lots as a work from home base or obtain work in the Waimakariri District.

47 Thirdly, it is acknowledged that the requested rezoning was not included in the 2019 RRDS. However, as I discussed earlier in my statement, the development of the 2019 RRDS was highly flawed, and the Officer Report has already concluded that some areas included in the 2019 RRDS are no longer recommended for rezoning to LLRZ.

48 Fourthly, the risk of reserve sensitivity effects on primary production is very low. Table 2 below details the existing land uses on each side of the requested LLRZ zoning.

Table 2 Current Land Uses Adjacent to Black Requested LLRZ

Direction	Current land use
North	Has already been subdivided into approximately 2ha lots that were intended for olive growing but this activity appears to be unsuccessful. (on north side of Tram Road)
East	Has already been subdivided into approximately 4ha lots, one of which has been planted in olives that has been unsuccessful, and the balance used for horse grazing.
South	The part of 83 Ohoka Meadows Drive that is inside the 300m intensive farming area is used for light grazing and hay making.
West	Is already zoned LLRZ as part of the Ohoka Meadows development.

49 Lastly, the Officers Report notes that no ODP was provided. The extent of the requested rezoning is so minor that an ODP is not warranted, and all details of extending services and access can be dealt with during the subdivision resource consent process.

165. As with the other Mandeville rezoning requests, any additional development will have an impact upon the wastewater and roading networks, and could potentially contribute to increased flooding in those downstream areas, such as Silverstream and Kaiapoi. I do not support the rezoning submission for the properties.

50 The requested rezoning requested in Submissions 247.1, 247.2, and 265.1 would result in the creation of approximately 10 new lots and this would have a minimal impact on the roading network, water network and wastewater network. The creation of approximately 10 new lots that are required to have a minimum average size of 5000m² would have a minimal impact on the characteristics of the downstream overland flow paths. These matters are discussed in further detail elsewhere in my statement.

PLANNING FRAMEWORK

National Policy Statements (NPS) and National Environmental Standards

51 The following National Policy Statements (NPS) and National Environmental Standards (NES) are

relevant to this requested LLRZ rezoning.

Table 3 Relevant NPS or NES

NPS or NES	Relevance
NPS-UD	As discussed in paragraph 24 this is not relevant
NPS-HPL	The NES-HPL requires a Regional Policy Statement (RPS) to identify Highly Productive Land and discourages development on HPL. While Environment Canterbury has not formally updated the CRPS a draft has been circulated and this draft includes the assessment of HPL in each district. A copy of this draft, along with an extract from that draft showing the location of the requested LLRZ rezoning, is attached as Appendix E and shows that the requested Black LLRZ zoning is not in an area of HPL.
NPS-FM	Not relevant
NPS-IB	Not relevant
NES FW	Not relevant
NES-CS	A search of the Environment Canterbury LLUR has resulted in none of the three properties requested for LLRZ rezoning having any record of potential contamination.
NES-DW	Not relevant

Canterbury Regional Policy Statement (CRPS)

52 The relevant provision of the CRPS are summarized in the table below:

Table 4 Relevant Rules of the CRPS

Policy	Requirements	Commentary
6.3.3	Development within greenfield areas and rural residential areas to be in accordance with an ODP and sets out the requirements for ODPs, including density considerations;	This extent of the requested rezoning is so minor that an ODP is not warranted, and all details of extending services and access can be dealt with during the subdivision resource consent process.
6.3.9	Restricts new areas of rural residential development to only occur within areas identified in a Rural Residential Development Strategy (RRDS)	As noted in paragraphs 17 to 25 above the 2019 WDC RRDS is highly flawed and should be given little weight, and the criteria detailed in UFD-P3 Identification/location and Extension of Large Lot Residential Zone areas should take precedence when considering requested LLRZ zoning.

Proposed District Plan

53 The Proposed District Plan has specific policies regarding the identification/location and extension of Large Lot Residential Zone areas is described in Section Part 2 – District-wide matters Strategic directions UFD - Āhuetanga auaha ā tāone - Urban form and development, repeated below, along

with an assessment of the requested LLRZ rezoning:

UFD-P3 Identification/location and Extension of Large Lot Residential Zone areas

In relation to the identification/location of Large Lot Residential Zone areas:

- *new Large Lot Residential development is located in the Future Large Lot Residential Zone Overlay which adjoins an existing Large Lot Residential Zone as identified in the RRDS and is informed through the development of an ODP;*
- *new Large Lot Residential development, other than addressed by (1) above, is located so that it:*

Criteria	Assessment
<ul style="list-style-type: none"> • <i>occurs in a form that is attached to an existing Large Lot Residential Zone or Small Settlement Zone and promotes a coordinated pattern of development;</i> 	Complies as it attached to the existing Mandeville LLRZ
<ul style="list-style-type: none"> • <i>is not located within an identified Development Area of the District's main towns of Rangiora, Kaiapoi and Woodend identified in the Future Development Strategy;</i> 	Fully complies
<ul style="list-style-type: none"> • <i>is not on the direct edges of the District's main towns of Rangiora, Kaiapoi and Woodend, nor on the direct edges of these towns' identified new development areas as identified in the Future Development Strategy;</i> 	Fully complies
<ul style="list-style-type: none"> • <i>occurs in a manner that makes use of existing and planned transport infrastructure and the wastewater system, or where such infrastructure is not available, upgrades, funds and builds infrastructure as required, to an acceptable standard; and</i> 	Complies as it utilizes the existing Ohoka Meadows Drive and Tram Rd sealed roads. Complies as connection to the existing Mandeville potable water and wastewater schemes is possible (but may require an upgrade of some infrastructure in the existing ROW) The existing Mandeville potable water and wastewater systems have provision to accommodate new connections.
<ul style="list-style-type: none"> • <i>is informed through the development of an ODP.</i> 	This extent of the requested LLRZ rezoning is so minor that an ODP is not warranted, and all details of extending services and access can be dealt with during the subdivision resource consent process.

ENGINEERING MATTERS

- 54 The following sections provide the relevant information as recommended in the Memo to Rezoning Submitters dated 12 December 2023.

Potable Water

55 The properties subject to this request for rezoning to LLRZ are already connected to the Fernside - Mandeville Water Scheme. This is a restricted supply and therefore requires each lot to have its own on-site storage and pressure pump system. The Officer Report has noted that the WDC Engineers have advised that additional connections to the Fernside - Mandeville Water Scheme are feasible. This is consistent with the data contained in the Fernside - Mandeville Water Scheme Activity Management Plan which shows that the scheme expects approximately 290 new connections over the next 20 years.. A copy of the following extracts from the Fernside - Mandeville Water Scheme Activity Management Plan are attached as Appendix G.

- Plan of the Serviced Area
- Table of Growth Projections
- Graph of Growth Projections

56 However, I note that the Plan for the Serviced Area is in error as the three properties subject to this request for rezoning to LLRZ are not shown on the Plan.

Wastewater

57 The properties subject to this request for rezoning to LLRZ are already connected to the Mandeville Wastewater Scheme. This is a pressure system and therefore requires each lot to have its own storage tank and a pressure pump system that pumps the wastewater to the WDC reticulation. The Officer Report has noted that the WDC Engineers have advised that additional connections to the Mandeville Wastewater Scheme are not feasible. This is inconsistent with the data contained in the Mandeville Water Scheme Activity Management Plan which shows that the scheme expects approximately 160 new connections over the next 20 years. A copy of the following extracts from the Mandeville Wastewater Scheme Activity Management Plan are attached as Appendix H.

- Plan of the Serviced Area
- Table of Growth Projections
- Graph of Growth Projections

58 However, I note that the Plan for the Serviced Area is in error as the three properties subject to this request for rezoning to LLRZ are not shown on the Plan.

Stormwater

59 In accordance with the WDC Code of Practice all buildings and hardstand areas on each lot are required to install approved design soakpits to dispose of stormwater. This approach ensures that there is minimal increase in the runoff characteristics resulting from the higher density of lots in a LLRZ development compared to an RLZ environment. Similarly, runoff from roads and rights of way are disposed to ground.

60 The Officers Report includes Appendix-G-Mandeville-San-Dona-Groundwater-Assessment, and

a copy of the section relevant to this statement is attached as Appendix I. The conclusions of this part of the report are that net groundwater take and reduction is not anticipated to be significant.

Natural Hazards

- 61 Data from the Waimakariri District Natural Hazards Interactive Viewer shows that two of the three properties may be subject to low hazard level of flooding as shown on Diagram 3 above. The low levels of flooding risk are two narrow overland flow paths running parallel to Tram Road which must be maintained. Avoidance of these overland flow paths to construct dwellings on 5000m² lots would be simple and is a common practice in rural residential developments. As shown on the Diagram 3 below the risk of flooding is less than many areas of Ohoka Meadows.
- 62 There are no other known natural hazards.

Floor Levels

- 63 At the time of lodging subdivision resource consent, it will be necessary to establish finished floor levels to ensure that building platforms are located above, with sufficient freeboard, the overland flow paths noted in the Natural Hazards section above.

Greenspace Levels of Service

- 64 Feedback from the WDC Plan Development team has been that the primary greenspace and recreation area in the Mandeville area is the Mandeville Sports Ground located on Mandeville Road, and no further greenspace facilities would be required because of a rezoning to LLRZ.

Transport

- 65 The rezoning of the three lots in question to LLRZ could result in the creation of up to 10 new lots. Depending on the configuration of the future subdivision most of the traffic generation would be onto the existing Ohoka Meadows Drive. This may require some widening of the existing right of way. There may also need to be a relocation and upgrading of the existing entrance onto Tram Road. These are all matters that are normally dealt with at the time of subdivision.

CONCLUSION

- 66 The requested Black rezoning from RLZ to LLRZ will have a minimal effect on the environment as there will be little change in the use of the land from its current use. A LLRZ zoning will not preclude small scale primary production or activities reliant on the natural and physical resources of the environment but will be an efficient use of the land compared to the current inefficient use, which is detailed in Table 1 above. The change to a LLRZ zoning will not be inconsistent with the area surrounding the site as the site does not lend itself to primary production activities currently due to its relatively small area. The proposal will therefore maintain the existing character and

reflect the existing activities surrounding the existing sites.

67 Thank you for the opportunity to present this statement.

Martin Pinkham
12 July 2024

Appendices

Appendix A	Submissions 247 and 265
Appendix B	Authorisation from Richard Black
Appendix C	Mandeville Growth Area
Appendix D	RC015121 EC Decision to Subdivide and Erect Dwellings
Appendix E	HPL Map from Draft CRPS 2024
Appendix F	RRDS-PRELIMINARY-CRITERIA-ASSESSMENT 2019
Appendix G	Mandeville-Fernside-Water-Supply-Scheme-Activity-Management-Plan
Appendix H	Mandeville-Wastewater-Scheme-Activity-Management-Plan
Appendix I	Pages from Appendix-G-Mandeville-San-Dona-Groundwater-Assessment
Appendix J	Authors Qualifications and Experience

Sub	Sub	Section	Sub-	Provisi	Sentime	Submission Point Summary	Relief Sought Summary
265.1	Richard and Simone Black	LLRZ - Large Lot Residential Zone	General	General	Amend	<p>The identification/location of some of the Large Lot Residential Zones (LLRZ) are flawed and inconsistent with UFD-P3 Identification/location and extension of LLRZ areas.</p> <p>Application of UFD-P3 supports an extension of the existing Mandeville LLRZ to include the full extent of 82 Ohoka Meadows Drive, as this would meet the criteria:</p> <ul style="list-style-type: none"> - it is attached and partially lies within existing LLRZ - it is not located in a Development Area - it is not located on the edge of Rangiora, Woodend or Kaiapoi - infrastructure is available for use and expansion - an Outline Development Plan is not required <p>Additionally, no further roading is required, it does not exit onto a main arterial road, it is not within a flood area, is within walking distance of amenities, and it would be personally beneficial to release some of the equity from the property. An Environment Court decision in 2014 noted that development would result in relatively minor change to existing rural character.</p>	Amend the mapped Large Lot Residential Zone in Mandeville to include the remainder of 82 Ohoka Meadows Drive.
247.1	Fiona Aston	Planning Maps	General	General	Amend	<p>Rezone 82 Ohoka Meadows Drive from Rural Lifestyle Zone to Large Lot Residential Zone (LLRZ), and other neighbouring properties as appropriate, namely 83 Ohoka Meadows Drive and 859 Tram Road.</p> <p>The property is ready to develop with water restrictors and has existing connections to Council's wastewater system and reticulated water supply, with capacity for expansion. There is also an additional power transformer. It is currently rural and rural residential zoned and is accessed through an existing rural residential subdivision. The property is situated on the South side of Tram Road, does not exit directly to a main arterial route, and is within walking distance to both the Mandeville Sports Centre and the Mandeville Village Commercial Hub. It is not within a flood area, and submitter has not experienced flooding on the property. It would benefit submitter to release some of the property's equity.</p> <p>It is consistent with all LLRZ objectives and policies, and UFD-P3.</p>	Rezone 82 Ohoka Meadows Drive from Rural Lifestyle Zone to Large Lot Residential Zone, and other neighbouring properties as appropriate, namely 83 Ohoka Meadows Drive and 859 Tram Road.
247.2	Fiona Aston	LLRZ - Large Lot Residential Zone	General	General	Amend	<p>Rezone 82 Ohoka Meadows Drive from Rural Lifestyle Zone to Large Lot Residential Zone (LLRZ), and other neighbouring properties as appropriate, namely 83 Ohoka Meadows Drive and 859 Tram Road.</p> <p>The property is ready to develop with water restrictors and has existing connections to Council's wastewater system and reticulated water supply, with capacity for expansion. There is also an additional power transformer. It is currently rural and rural residential zoned and is accessed through an existing rural residential subdivision. The property is situated on the South side of Tram Road, does not exit directly to a main arterial route, and is within walking distance to both the Mandeville Sports Centre and the Mandeville Village Commercial Hub. It is not within a flood area, and submitter has not experienced flooding on the property. It would benefit submitter to release some of the property's equity.</p>	Rezone 82 Ohoka Meadows Drive from Rural Lifestyle Zone to Large Lot Residential Zone, and other neighbouring properties as appropriate, namely 83 Ohoka Meadows Drive and 859 Tram Road.

PDP Hearings Administrator

Waimakariri District Council

Private Bag 1005

Rangiora

10 June 2024

Presentation of Evidence to PDP Hearing

Dear Audrey

I confirm that Martin Pinkham of Adderley Projects Limited is authorised to submit evidence to the Stream 12C Hearing on my behalf in relation to Submissions 247.1 and 247.2.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Richard Black', with a stylized flourish at the end.

Richard Black

82 Ohoka Meadows Drive, Mandeville

PDP Hearings Administrator

Waimakariri District Council

Private Bag 1005

Rangiora

10 June 2024

Presentation of Evidence to PDP Hearing

Dear Audrey

I confirm that Martin Pinkham of Adderley Projects Limited is authorised to submit evidence to the Stream 12C Hearing on my behalf in relation to Submission 265.1.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Richard Black', with a stylized flourish extending from the end.

Richard and Simone Black

82 Ohoka Meadows Drive, Mandeville

IN THE MATTER of the Resource Management Act 1991 (the Act)

AND

IN THE MATTER of an appeal under section 120 of the Act

BETWEEN

I R HARRIS

(RMA 349/02)

Appellant

AND

WAIMAKARIRI DISTRICT COUNCIL

Respondent

BEFORE THE ENVIRONMENT COURT

Environment Judge J A Smith (sitting alone under section 279 of the Act)

IN CHAMBERS at CHRISTCHURCH

CONSENT ORDER

[1] The Court has read and considered the appeal and memorandum of the parties dated 14 February 2003.

[2] No other person has given notice of an intention to become a party or to be heard under section 271A or section 274 of the Act.

[3] In signing this consent order the Court has not considered the merits of the solution agreed by the parties (and in particular whether it achieves the purpose of the Act) but only confirmed that:

- (a) All of the parties to the proceeding and any section 274 interested persons have executed the memorandum (unless stated otherwise for specific reasons) requesting this order, and


- (b) The proposed order is *prima facie* reasonable within the scope of the submission and appeal initiating the proceeding.

[4] Therefore, this Court ORDERS, by consent, that the appeal is allowed to the extent that the conditions of consent are amended as set out in the attached Schedule.

[5] The appeal is otherwise dismissed.

[6] There is no order as to costs.

DATED at CHRISTCHURCH 5th March 2003.


J A Smith
Environment Judge
Issued: 10 MAR 2003



015124/015122

HARRIS CONDITIONS - RC015121

SUBDIVISION

That pursuant to Section 105 of the Resource Management Act 1991 consent be granted in part to subdivide Lot 1 DP 79267, comprising 15.2440ha, into four lots of 3.05ha (Lot 1), 3.64ha (Lot 2), 3.77ha (Lot 3) and 4.26ha (Lot 4) at 859 Tram Road, Mandeville, as a non complying activity subject to the following conditions imposed under Sections 108 and 220 of the Act:

1. Standards
At all stages of design and construction reference shall be made to the Waimakariri District Council Engineering Code of Practice.

2. Essentials
All services, including open drains and access ways, serving more than one lot or traversing lots other than those being served and not situated within a public road or proposed public road, shall be protected by easements. All such easements, together with any amendments to the easements found necessary during the final engineering design, shall be granted and reserved.

3. Power and Telephones
The subdivider shall provide evidence in writing from the relevant utility service providers that existing electrical and telephone reticulation has the capacity to provide a service connection to each proposed lot.

4. Plans and Specifications
4.1 Three copies of plans and specifications of all works shall be submitted to the Council for approval prior to survey plan approval. The Council will approve complying documents in writing. Work shall not commence until the subdivider has confirmed receipt of Council approval.

- 4.2 Any subsequent amendments to the plans and specifications shall be submitted to the Council for approval.

5. Trenching
5.1 All works involving trenching shall meet the requirements of the Council's Standard conditions for Trenching. No excavation shall commence within a public road reserve without the prior receipt of a Trenching Permit from the Waimakariri District Council.

- 5.2 In the event of any works or trenching being required across the frontage of adjacent properties the subdivider shall inform the affected occupiers of those properties, 48 hours prior to the commencement of any work.

6. Water Supply
The subdivider shall provide an adequate and potable domestic water supply



to all proposed dwelling lots by connecting to the Mandeville Public Rural Restricted Water Supply Scheme from Ohoka Meadows Drive, in accordance with approved plans and specifications.

- 6.2 Two cubic metres of water per day shall be established from the Mandeville Water Supply Scheme to each lot by providing the following:

- (a) Toby valves and valve boxes at the road boundary to proposed Lots 2 and 3, for each of proposed Lots 1 to 4.
- (b) The subdivider shall establish pipework, fittings, 2m³/day flow restrictors and storage tanks on each lot. The tanks shall accord with the Waimakariri District Council Rural Water Supply Bylaw 1992, and shall have a minimum capacity of 4000 litres.

- 6.3 The Council at the subdivider's expense shall carry out all connections to the existing public water supply.

- 6.4 Pursuant to Section 283 of the Local Government Act 1974, the subdivider shall pay the following service upgrading capital contributions to the Council calculated as follows:

Service	No of New Connections	Contribution	Total
Water	4	\$2,250.00	\$9,000.00
Total			\$9,000.00

- 6.5 That any existing water connections (other than the water race) crossing the proposed boundary between any proposed lots shall be disconnected to the satisfaction of the Waimakariri District Council.

7. Sewage Disposal

- 7.1 The subdivider shall connect each lot off Ohoka Meadows Drive, to the Ohoka Meadows Sewage Treatment Plant, in accordance with approved plans and specifications.

- 7.2 Pursuant to Section 283 of the Local Government Act 1974 the subdivider shall pay the following service upgrading capital contributions to the Council calculated as follows:

Service	No of New Connections	Contribution	Total
Sewage	4	\$2,250.00	\$9,000.00
Total			\$9,000.00

8. Access

- 8.1 The subdivider shall construct the right of way serving the three lots being created from lots 2, & 3 as necessary to accord with drawing 800-273 (attached).

- 8.2 The subdivider shall, for proposed Lot 4, install a minimum 375mm diameter culvert in the vehicle crossing where it crosses the roadside water race along Mandeville Road. The culvert shall include either a stone or concrete or



ground treated timber headwalls constructed at both ends. The accessway shall be upgraded and sealed to accord with the requirements of drawing 600-217 (attached).

9. Conditions Auditing

The Council will audit compliance with the conditions of consent by both site inspections and checking of associated documentation to the extent necessary to ensure the work is completed in accordance with the approved plans and specifications and to the Council's standards. The Council will undertake inspections and checking. The subdivider, or their authorised agent, shall notify Council at least one working day prior to commencing various stages of the works. This is to enable audit inspections required by the consent to be performed. Should the developer wish the Council to accept requests for inspections from any contractors engaged, Council must receive written authorisation.

The minimum level of inspection shall be as follows:

Water and Sewage

- Inspection and testing of sewer laterals
- On completion of works trenching
- Prior to the backfilling of service trenches

Access/Right of way

- On completion of excavation to sub-grade.
- Following compaction of base course prior to final surfacing.

Whole Works

- Prior to issue of a certificate under Section 224(c) of the Resource Management Act.

Where repeat inspections are required because of faulty workmanship or work not being ready contrary to the receipt of a notification, such inspections will be carried out at the current hourly rate for staff time and vehicle running costs for kilometres travelled. Currently these rates are between \$50/hr and \$70/hr depending on the Council officer inspecting and between \$.45/km and \$.70/km for kilometres travelled.

10. As Built Plans

"As Built" plans setting out in detail the location of all services shall be provided to the Council immediately following completion of the works and are to be available at the time of the Condition Certificate Inspection. Two sets of plans are to be provided at appropriate scales of 1:2000, 1:1000 and 1:500 as appropriate. In addition to the plans a practising registered civil engineer or registered surveyor shall provide a separate certificate stating that the As-built plans are a true and accurate record of all services.

Furthermore, where plans have been prepared using computer aided draughting techniques a copy of the file may be made available to the Council



in either of the following format - Intergraph (.DGN), Autocad (.DWG), or (.DXF).

11. Works Conditions

That a certificate under Section 224(c) of the Resource Management Act 1991 will not be issued until conditions 1 to 10 above have been met to the satisfaction of the Waimakariri District Council, at the expense of the subdivider.

12. Rights of Way

The rights of way, with any consequential amendment, A, and B are approved pursuant to Section 348 of the Local Government Act 1974.

ADVICE NOTES

- a) The requirements and conditions listed is a statement of the Council's minimum standards. Where the subdivider proposes higher standards or more aesthetically acceptable alternatives these shall be submitted to the Council for approval.
- b) Water-races are protected under a by-law. Any alteration to a water-race can only occur upon prior approval from the Waimakariri District Council. If then approved, the subdivider shall be responsible for all costs involved in the relocation of any water-races including culverts, crossings and any other structures that may be required.
- c) The subdivider and purchasers of lots containing stock water races are advised that pursuant to The Waimakariri-Ashley Water Supply Act 1981 and Council bylaw, Council has legal right to enter onto any property subject to a water race, for the purpose of maintenance and clearing. There are also restrictions as to buildings and trees within proximity of water races. Also, all new or altered sections of water race become property of the Council.

LAND USE

THAT

pursuant to Section 105 of the Resource Management Act 1991 consent be granted to allow the erection of a dwelling on each of four lots created by the subdivision of Lot 1 DP 79287, being 869 Tram Road, Mandeville as a non-complying activity subject to the following conditions imposed under Section 108 of the Act;

1. The applicant shall be carried out in accordance with the attached approved application plan.
2. The house on the lot nearest Tram Road shall be set back a minimum of 50 metres from the Tram Road boundary.
3. That prior to the erection of a dwelling on Lots 1, 2 and 3, the consent holder shall demonstrate a financial commitment to the lot by:
 - Installing irrigation to a minimum value of \$3,500
 - Erecting a shed to a minimum value of \$3,000



- Planting a shelter to a minimum value of \$500

4. Management Contract - Lots 1, 2 and 3

A signed agreement between the consent holder and a suitably qualified person, approved by the Council, shall be submitted to the Council for approval for Lots 1, 2 and 3. The agreement shall detail to the Council's satisfaction how the suitably qualified person will provide technical advice and oversee the establishment and management of the selected farming enterprise for a minimum period of three years, and shall include performance measures relating to the following factors: time frames, output, revenue and cost targets.

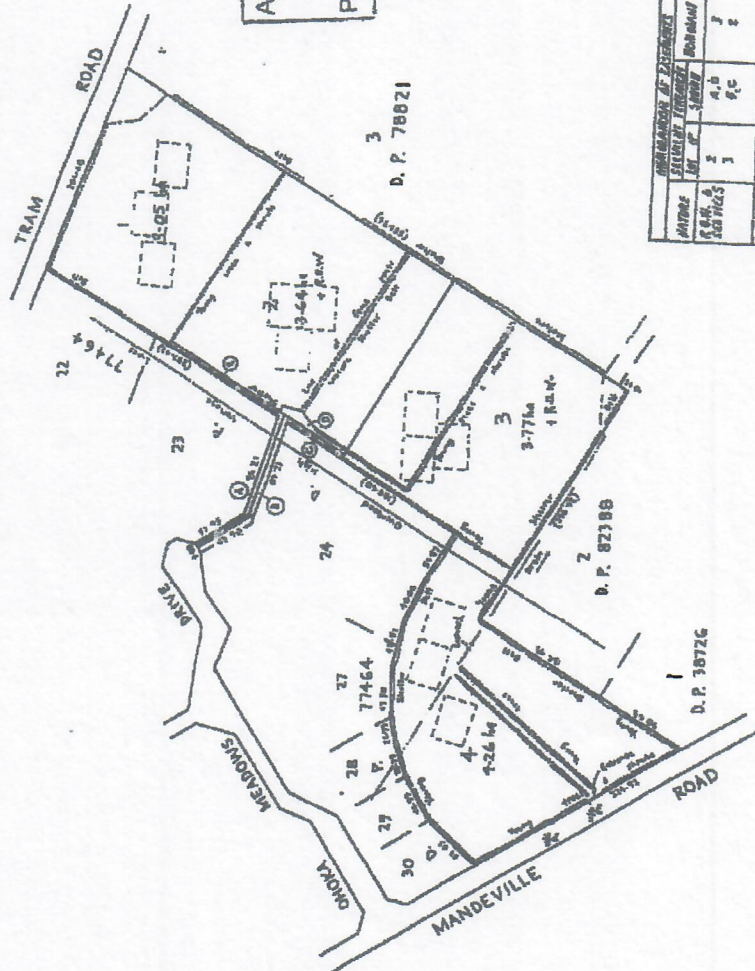
5. Inspection

That compliance with the above conditions shall be verified by inspection by a Council Officer pursuant to Section 35(2)(d) of the Resource Management Act 1991. The consent holder shall pay to the Council charges pursuant to Section 38(1)(c) of the Resource Management Act 1991 to enable the Council to recover its actual and reasonable costs in carrying out the inspections.

ADVICE NOTES

- This consent does not constitute consent in terms of the Building Act and the Transitional Regional Plan.
- The consent holder is advised that vehicle access to the lot must comply with the requirements of the Waimakariri District Vehicle Crossings Bylaw 1997. Wherein no vehicle may be taken onto any property in the Waimakariri District other than by way of a property formed vehicle crossing. The owner or occupier of any lot who may require vehicular access across any footpath, berm and water channel adjoining that lot is required to apply in writing to the Council to construct a vehicle crossing at the owner's or occupier's cost. No owner or occupier of any lot can build, or allow to be built, any dwelling, other significant building or any part of such a building on any property unless the building site on that property is provided with adequate site access in terms of the above-mentioned bylaw.





Approved Application

Plan A.C. 105/184, S. 45C 01/5/184

SUMMARY OF PROPOSED			
PROPOSED	EXISTING	PROPOSED	PROPOSED
LOT	LOT	LOT	LOT
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9
10	10	10	10
11	11	11	11
12	12	12	12
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30	30	30	30

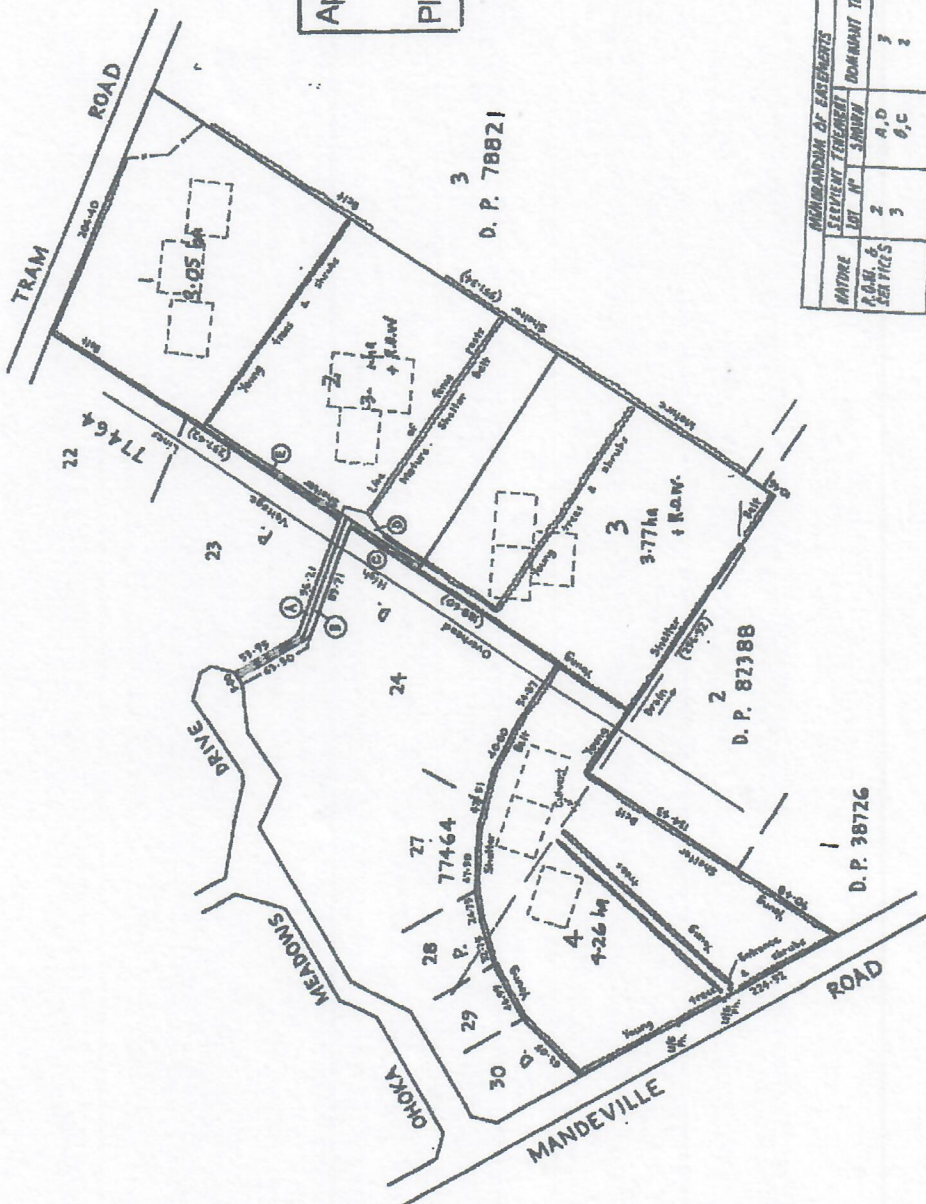
Notes: Shaded areas indicate existing buildings.

Proposed Subdivision of Lot 1 D.P. 79267 - C.T. 45C/184

I. Harris

FRIZZELL
Solicitors & Land Agents
100-102, The Arcade, Auckland

DATE	01/5
TIME	10:00
DATE	01/5
TIME	10:00
DATE	01/5
TIME	10:00



Plan AC015121 & AC015122.

MEMORANDUM FOR MEMBERS			
MAYORE	STAFFMENT ELEMENT	LET. NO.	DOMINANT TONE AND
P.A.H. SERVICES	2	A D	3
	3	B, C	2
Right to drain pneumonia & survey water	2	A E	1
	3	B	

Note: Packed lines indicate building platforms.

Proposed Subdivision of Lot 1 D.P. 79267 ~ C.T. 45C/184

H. Harris

Note: Areas & dimensions are approx. only & subject to final survey & approval.

01/8

LT 20467 (17th Plan)

Diagram
Not to Scale

Registered Owners I hereby certify that this plan was approved by the Municipal District Council pursuant to Section 223 of the Resource Management Act 1991 on this 27th day of July 2007.	
[Signature] Authorised Officer	
Memorandum of Easements	
Nature Easement Lot No. 1 Shown Lot No. 2 Shown Lot No. 3 Shown Lot No. 4 Shown	Nature Easement Lot No. 1 Shown Lot No. 2 Shown Lot No. 3 Shown Lot No. 4 Shown
Existing Easements	
Nature Easement Lot No. 1 Shown Lot No. 2 Shown Lot No. 3 Shown Lot No. 4 Shown	Nature Easement Lot No. 1 Shown Lot No. 2 Shown Lot No. 3 Shown Lot No. 4 Shown
Certificate of Title Allotted Lot 1 577605 Lot 2 577604 Lot 3 577605 Lot 4 577606	
Class II Survey Total Area 15.2433 ha Copied in S.T. 455/184	
1. David John Smith I am a duly qualified and registered surveyor under the Survey Act 1980 and the Survey Regulations 1981. I have surveyed the land shown on this plan and I am satisfied that the boundaries are correctly shown. I have also surveyed the easements shown on this plan and I am satisfied that they are correctly shown. I have also surveyed the roads shown on this plan and I am satisfied that they are correctly shown. I have also surveyed the other features shown on this plan and I am satisfied that they are correctly shown. I have also surveyed the other features shown on this plan and I am satisfied that they are correctly shown.	
2. [Signature] I am a duly qualified and registered surveyor under the Survey Act 1980 and the Survey Regulations 1981. I have surveyed the land shown on this plan and I am satisfied that the boundaries are correctly shown. I have also surveyed the easements shown on this plan and I am satisfied that they are correctly shown. I have also surveyed the roads shown on this plan and I am satisfied that they are correctly shown. I have also surveyed the other features shown on this plan and I am satisfied that they are correctly shown. I have also surveyed the other features shown on this plan and I am satisfied that they are correctly shown.	
3. [Signature] I am a duly qualified and registered surveyor under the Survey Act 1980 and the Survey Regulations 1981. I have surveyed the land shown on this plan and I am satisfied that the boundaries are correctly shown. I have also surveyed the easements shown on this plan and I am satisfied that they are correctly shown. I have also surveyed the roads shown on this plan and I am satisfied that they are correctly shown. I have also surveyed the other features shown on this plan and I am satisfied that they are correctly shown. I have also surveyed the other features shown on this plan and I am satisfied that they are correctly shown.	
4. [Signature] I am a duly qualified and registered surveyor under the Survey Act 1980 and the Survey Regulations 1981. I have surveyed the land shown on this plan and I am satisfied that the boundaries are correctly shown. I have also surveyed the easements shown on this plan and I am satisfied that they are correctly shown. I have also surveyed the roads shown on this plan and I am satisfied that they are correctly shown. I have also surveyed the other features shown on this plan and I am satisfied that they are correctly shown. I have also surveyed the other features shown on this plan and I am satisfied that they are correctly shown.	
Approved as to Survey 5. [Signature] 6. 1/20/2007 7. 27/7/2007	
Deposited this 27th day of July 2007 8. [Signature] 9. 27/7/2007	
Registered as to Land 10. 31-8-07 11. DP 394-07	

LAND DISTRICT, Canterbury
SURVEY BLK & DIST. XIV, Rangiora
RZNS 261 SH

Lots 1-4 being subdivision of Lot 1 D.P. 79267

TERMINAL AUTHORITY, Mairangi District
Surveyed by Fritzsche & Associates
July 2007
Scale 1:2000
Date Mairangi 2007

RC 016121

RC015121

**CERTIFICATE ISSUED PURSUANT TO THE
RESOURCE MANAGEMENT ACT 1991**

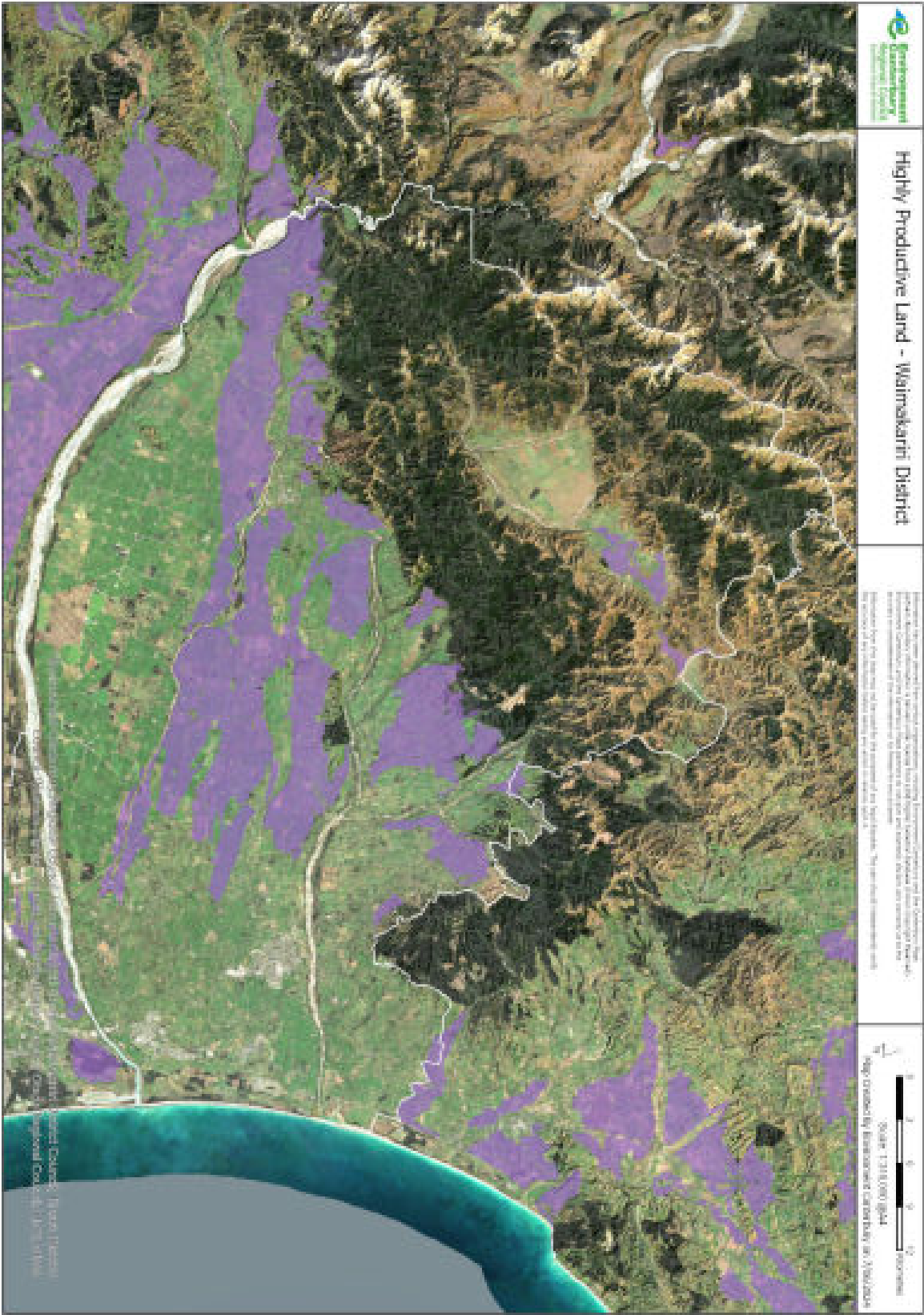
In the matter of the Land Transfer Plan 394407 and pursuant to Section 224(c) of the Resource Management Act 1991, I hereby certify that all of the conditions of the subdivision consent (Lots 1 - 4 being subdivision of Lot 1 DP 79267) have been complied with to the satisfaction of the Waimakariri District Council.

Dated at Rangiora this 14th day of January 2010



Authorised Officer

Waimakariri



Macksville
East

Tram Rd

Macksville Rd

Environment Canterbury Regional Council; Hurunui District Council; Waimakariri Council; Mairaki District Council; Mackenzie District Council; Otago



Locality	Specific location (Source)	Preliminary Criteria Assessment	Site in or out
	<ul style="list-style-type: none"> 219 - 221 Gladstone Rd (Landowner interested) 	<ul style="list-style-type: none"> Not connected to existing rural residential nodes or small settlements 	OUT
Mandeville	<ul style="list-style-type: none"> Ashworths Rd (Internal workshops) West of No. 10 Rd (Internal workshops) Area bounded by Tram Rd, Wards Rd, No. 10 Rd (Internal workshops) South east of domain, 335 Mandeville Rd (Internal workshops) East (Internal workshops) South-west (Internal Workshops) South-east (Internal Workshops) 135 Wards Rd / North-west (DDS submission) 229 North Eyre Rd, 238 No10 Road, 275 North Eyre Rd (DDS submission) 	<ul style="list-style-type: none"> Does not trigger any Preliminary Criteria However removed under special circumstances as Mandeville has the Mandeville Growth Boundary around it which was put in there during Council Plan Change 32 in 2012 in order to address sprawl issues in Mandeville. Given this was only 6 years ago, there is no argument that the basis for this growth boundary has changed. Also Mandeville is affected by undercurrents / groundwater resurgence, along with high groundwater levels and overland flows. Mandeville Growth Boundary shown on the following map: https://www.waimakariri.govt.nz/data/assets/pdf_file/0016/10393/sht167-dp2005.pdf 	OUT
Swannanoa	<ul style="list-style-type: none"> North Tram Rd, east Two Chain Rd (Internal workshops) 	<ul style="list-style-type: none"> Does not trigger any Preliminary Criteria 	IN
	<ul style="list-style-type: none"> 1275 Tram Rd (DDS submission) 	<ul style="list-style-type: none"> Does not trigger any Preliminary Criteria 	IN
Ohoka	<ul style="list-style-type: none"> South (Internal workshops) South east (Internal workshops) 	<ul style="list-style-type: none"> Does not trigger any Preliminary Criteria 	IN
	<ul style="list-style-type: none"> South (Partially undeveloped RRDP area) 	<ul style="list-style-type: none"> Does not trigger any Preliminary Criteria 	IN
Ashley / Loburn	<ul style="list-style-type: none"> West of Cones Rd Res 4B (Internal workshops) North Fawcetts Rd Res 4B (Internal workshops) East of Cones Rd, parallel with Loburn Lea Res 4B (Internal workshops) 	<ul style="list-style-type: none"> Engineers advise that this area could be connected to reticulated water provided the appropriate critical mass was proposed Therefore does not trigger any Preliminary Criteria 	IN

Figure 14: A1 - Plan of Serviced area – Mandeville

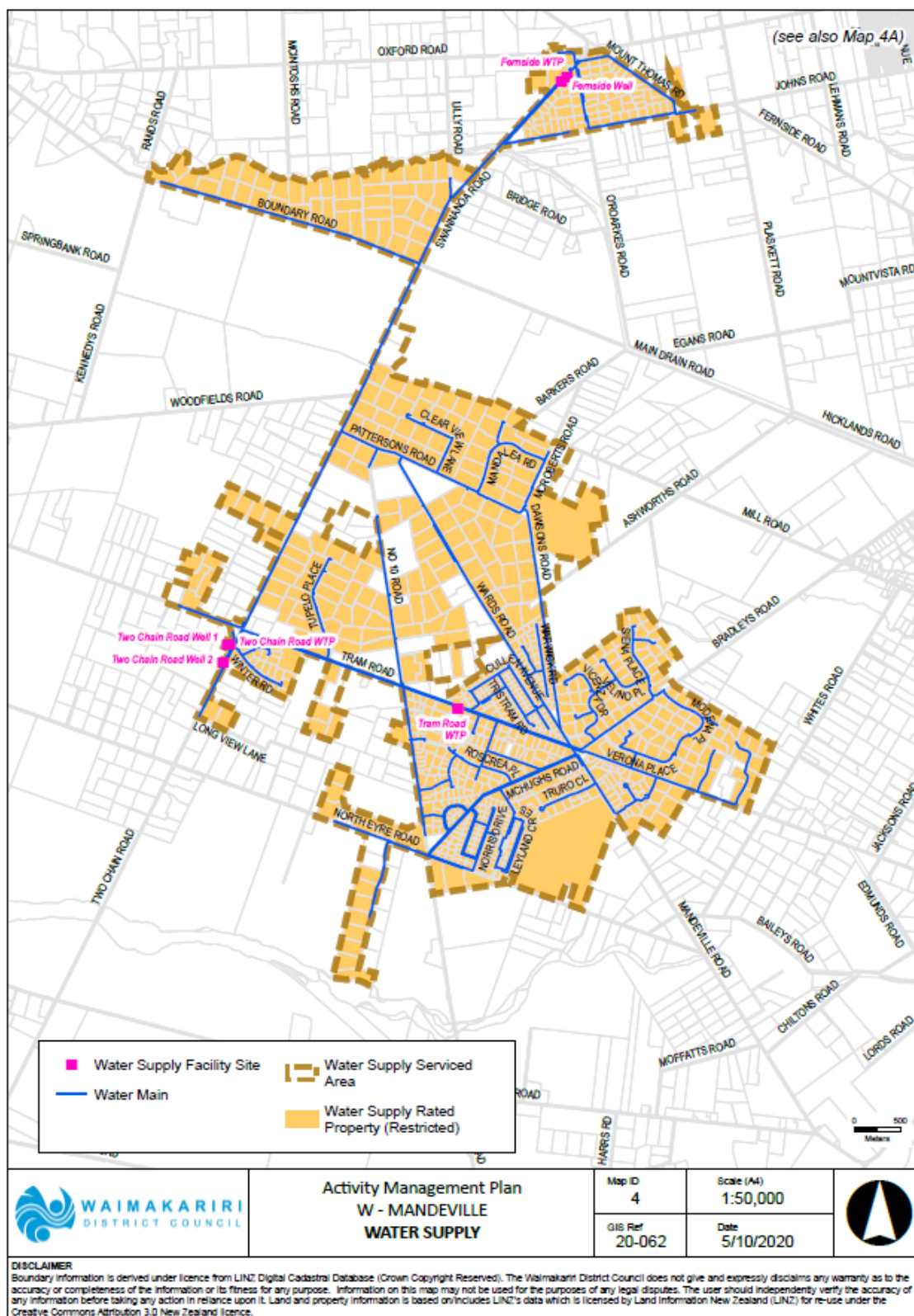


Table 11: Growth Projections

Mandeville-Fernside	Rates Strike July 2019	Years 1 - 3	Years 4 - 10	Years 11 - 20	Years 21 - 30	Years 31 - 50
	2019/20	2021/22 to 2023/24	2024/25 to 2030/31	2031/32 to 2040/41	2041-42 to 2050/51	2051/52 to 2070/71
Projected Connections	952	1,019	1,113	1,241	1,352	1,552
Projected Rating Units	2,012	2,146	2,334	2,589	2,812	3,213
Projected increase in Connections		7%	17%	30%	42%	63%
Projected Average Daily Flow (m3/day)	1,319	1,407	1,529	1,694	1,839	2,100
Projected Peak Daily Flow (m3/day)	1,801	1,956	2,171	2,465	2,721	3,182

Note that the time frames have been chosen to reflect the periods 3, 10, 20 and 30 years from the AMP release date, however due to the time it takes to complete the analysis the base rates strike data used was from 2019/20.

Longer term, connections are projected to increase by 63%. This long term projection is similar to the 2017 growth projection, 67% (used for the 2017 AMP). Both projections utilised the best data and information available to project the connections for the water schemes at the time. The base population projections given to PDU for 2019 infrastructure planning were more area specific than the 2017 projections (separating the Mandeville area into residential and rural), and has given a better projection for the Mandeville-Fernside scheme.

Water use predictions for the Mandeville-Fernside water supply scheme have been based on the standard assumption used when modelling the future water demands within the water distribution models, average and peak daily water use per day of 1,000 litres and 2,500 litres respectively (including losses).

Projections

Figure 5 and Figure 6 present the projected growth and corresponding demand trends for the Mandeville-Fernside-Fernside Water Supply Scheme.

Figure 5: Population Projections

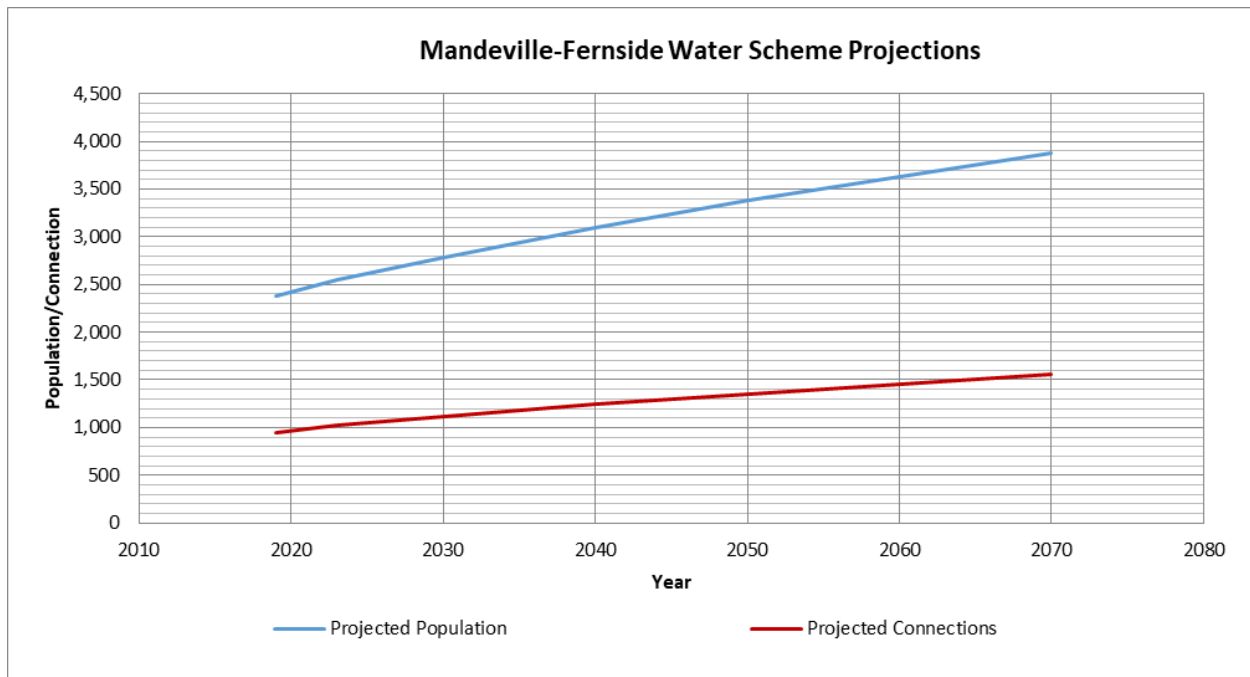
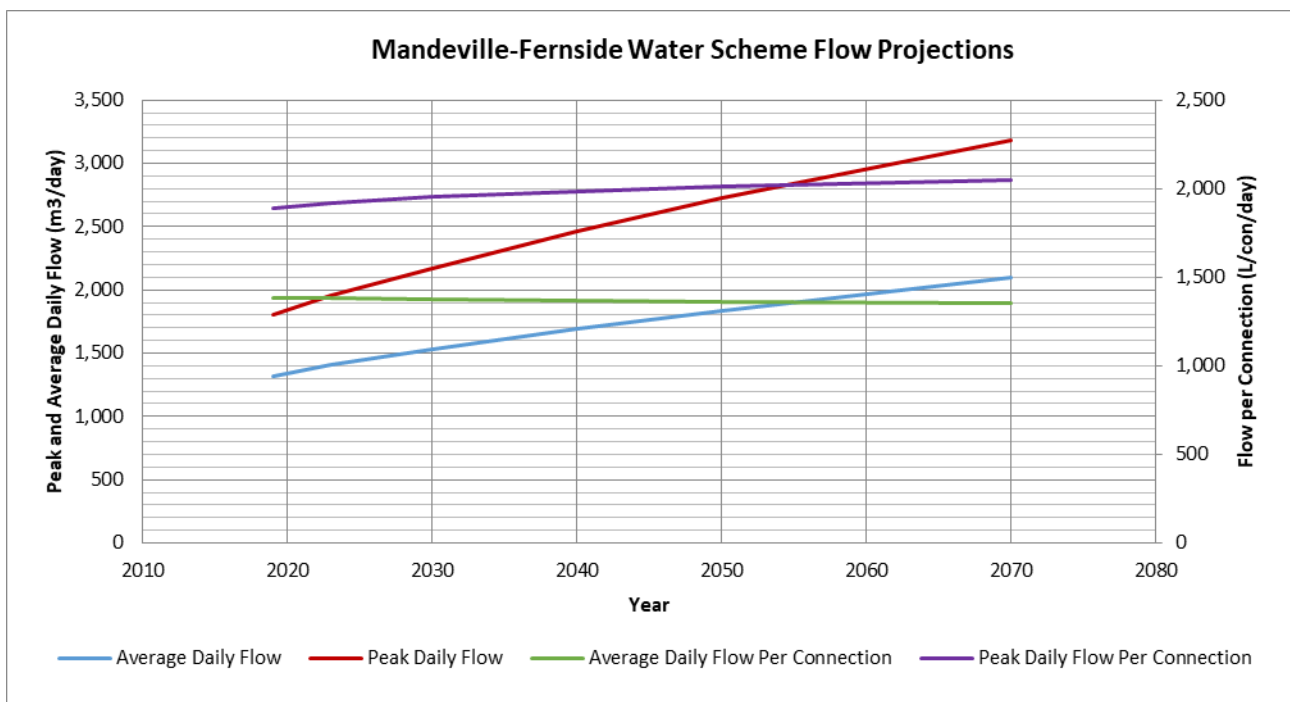


Figure 6: Flow Projections



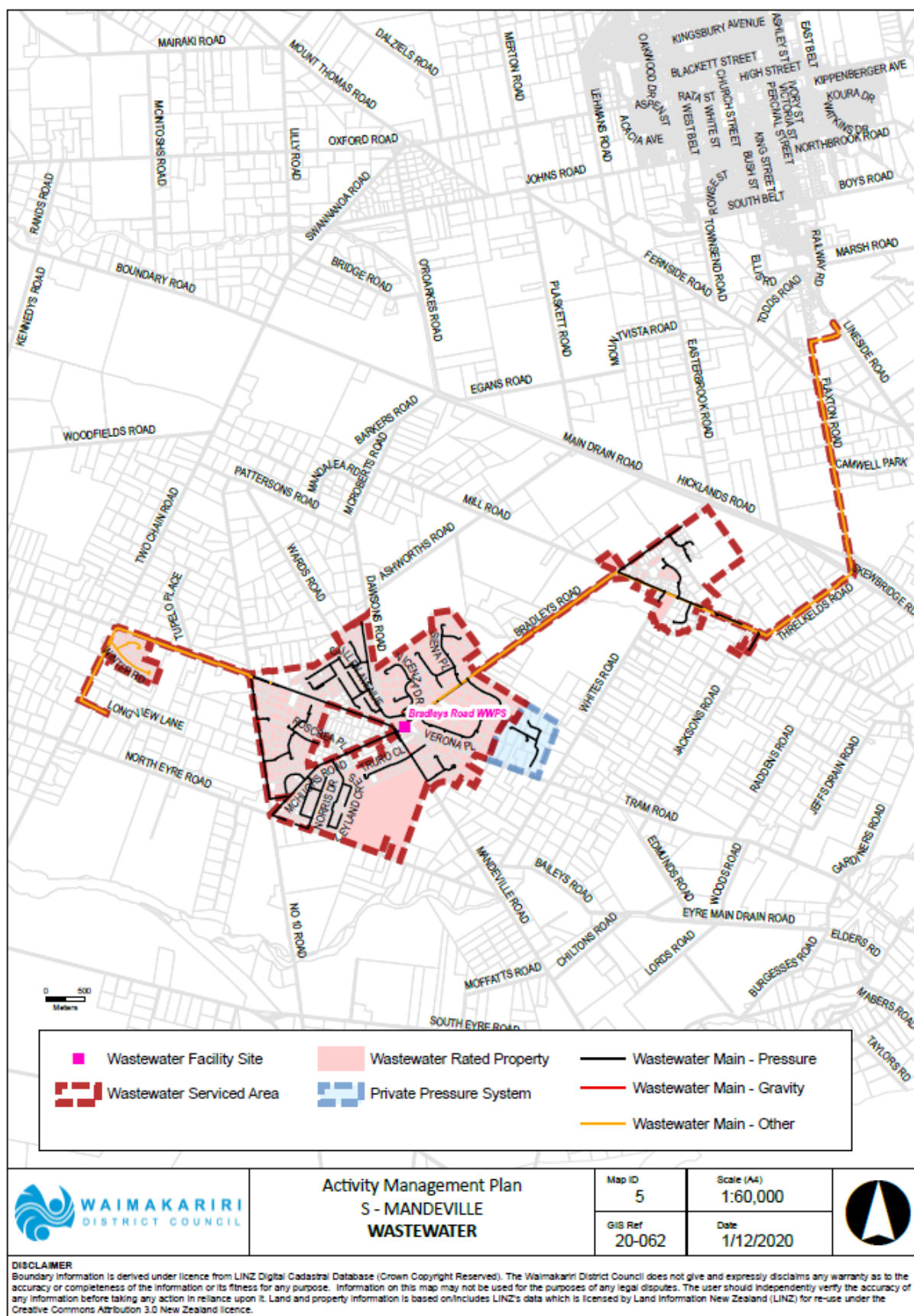
5.8 Capacity & Performance

This section of the AMP considers the capacity and performance of the Mandeville-Fernside Water Supply, both given the current demand, and also taking into account the forecast growth. The specific aspects of the scheme that have been considered are the source, treatment, storage, headworks, and reticulation system. These are discussed in more detail in the following sub-

APPENDIX 'A'.

PLANS

Figure 13: A1 - Plan of Served Area - Mandeville



The number of new residential connections are predicted to increase by 8 per year, during the 2021-31 Long Term Plan (LTP) period to accommodate this demand. Demand beyond the 2021-31 LTP period (2030/31 to 2070/71) is forecast to transition to a slightly lower growth profile resulting in an average of 6 new connections per year (Table 12).

Table 12: Growth Projections

Mandeville-Ohoka	Rates Strike July 2019	Years 1 - 3	Years 4 - 10	Years 11 - 20	Years 21 - 30	Years 31 - 50
	2019/20	2021/22 to 2023/24	2024/25 to 2030/31	2031/32 to 2040/41	2041-42 to 2050/51	2051/52 to 2070/71
Projected Connections	536	572	622	693	755	862
Projected Rating Units	592	628	678	749	811	918
Projected increase in Connections		7%	16%	29%	41%	61%
Projected Average Dry Weather Flow (m3/day)	248	273	307	354	396	468
Projected Peak Wet Weather Flow (m3/day)	1,208	1,330	1,499	1,737	1,948	2,307

Note that the time frames have been chosen to reflect the periods 3, 10, 20 and 30 years from the AMP release date, however due to the time it takes to complete the analysis the base rates strike data used was from 2019/20.

Longer term, connections are projected to increase by 61%. This long term projection is lower than the 2017 growth projection, of 109% (used for the 2017 AMP). Both projections utilised the best data and information available to project the connections for the wastewater schemes at the time. The base population projections given to PDU for 2019 infrastructure planning were more area specific than the 2017 projections (separating the Mandeville area into residential and rural), and has given a better projection for the Mandeville scheme.

Average Dry Weather Flow (ADWF) and Peak Wet Weather Flow (PWWF) projections have been based on the assumptions that for future development areas the Engineering Code of Practice (ECOP) ADWF or PWWF per person is added to the existing flow.

The assumptions made to calculate the future ADWF were based on the ECOP, with the residential 0.675m3/prop/day and non-residential 0.2m3/Ha/day; and the future PWWF was based on the ECOP, at residential 3.375m3/prop/day and non-residential 1m3/Ha/day.

On average Mandeville's existing Inflow/Infiltration level is considered low, resulting in below-average Peak Wet Weather Flow (PWWF).

Projections

Figure 5 & Figure 6 present the projected growth and corresponding demand trends for the Mandeville Area wastewater scheme.

Figure 5: Population Projections

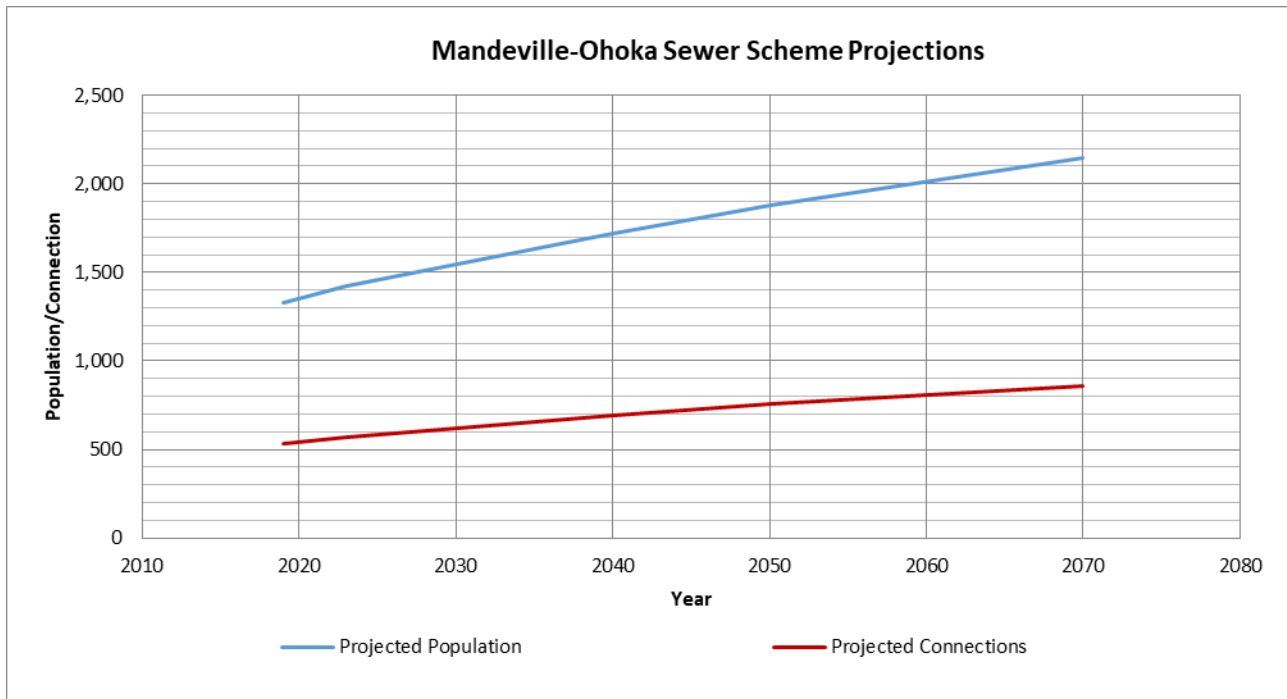
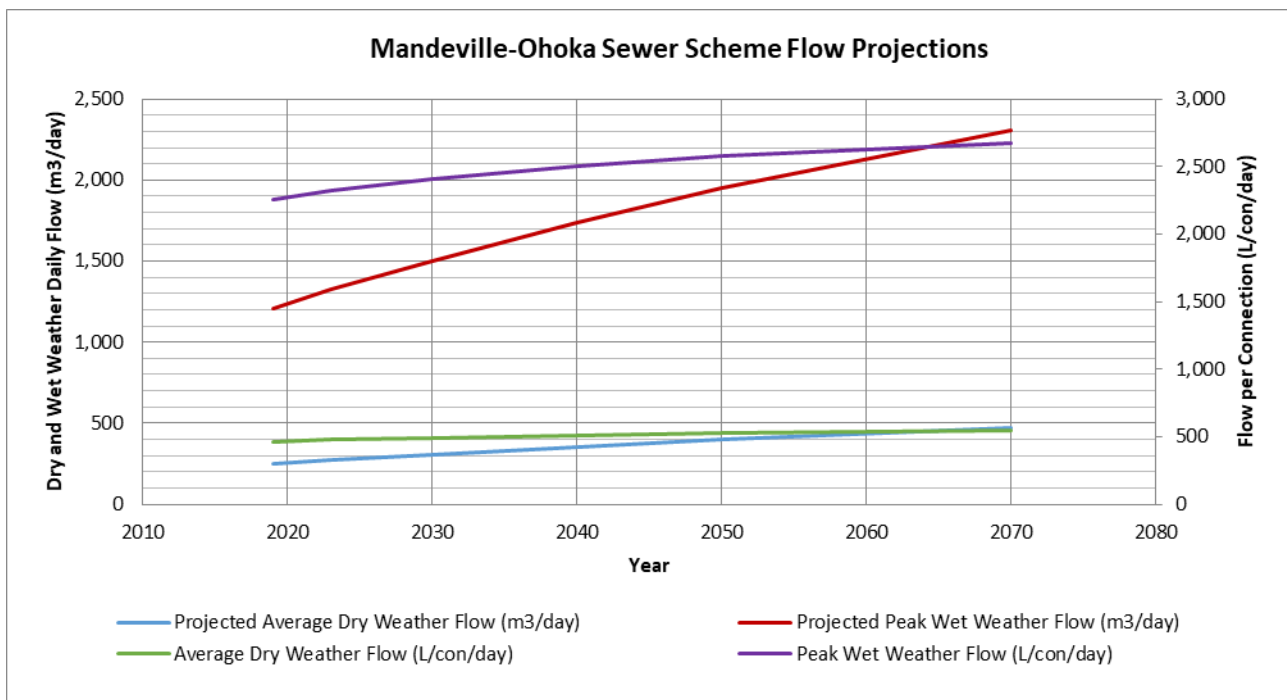


Figure 6: Flow Projections



Mandeville San Dona Groundwater Assessment

Provide comments as to whether any expansion of the Mandeville area to the east along Tram Road down to the Whites Road intersection would result in groundwater issues

- a) given that most properties have bores what is the likely impact upon the underlying aquifer,**
- b) will localised irrigation cause an increase in shallow groundwater (bearing in mind the stock water race may be removed?)**

Likely impacts for groundwater resulting from expansion to the east of Mandeville along Tram Road are the same as those previously described for San Dona.

Assuming that irrigation water is locally sourced shallow groundwater, as previously described, deep infiltration and recycling of groundwater is only anticipated to comprise a small proportion of the overall groundwater take. The overall effect is anticipated to be a net groundwater take and reduction in groundwater levels; however, this is also not anticipated to be significant.

Properly managed irrigation should also limit the potential for deep drainage and recharge to groundwater.

Author's Qualifications and Experience

QUALIFICATIONS

Bachelor of Engineering (Civil) University of Canterbury

Former Member of Institute of Professional Engineers of New Zealand

Registered Engineer (prior to title ceasing)

Former Member of Association of Local Government Engineers

May 2022 -

Retired

January 2016 – May 2022

Safety, Risk & Property Manager, McAlpines Ltd

- Group Safety Manager for timber manufacturing and retail group with 380 employees in four locations.
- Group Risk Manager for McAlpines Group of companies with responsibility for \$250 million of assets
- Responsible for environmental compliance of group's timber manufacturing and retail sites
- Responsible for building compliance of group's timber manufacturing and retail sites
- Principal project manager for a wide range of capital expenditure and operational improvement projects at timber processing and retail sites

May - November 2015

Travelling in Europe with family

July 2013 – May 2015

National Projects Manager, Waste Management NZ Ltd

- Principal project manager for a wide range of capital expenditure and operational improvement projects for Transpacific Industries, with focus on South Island projects
- Principal project manager for capital projects for Transwaste Canterbury Ltd, a public private partnership, including landfill development, environmental protection, power generation, and land development.
- Responsible for the technical performance and regulatory compliance of the Kate Valley Landfill, Redruth Landfill in Timaru, and Fairfield Landfill in Dunedin.
- Team leader of South Island project management team.

May 2010 – June 2013

General Manager, Canterbury Waste Services

- Profitable financial performance, leadership and general management of \$20 million per annum operation with 45 staff including Kate Valley Landfill, transfer station to landfill waste haulage, and Fairfield Landfill.
- Principal advisor and administrator to the Board of Transwaste Canterbury Ltd, a public private partnership.
- Development and maintenance of strategic plan, and risk management plan.
- Champion of development and implementation of health, safety, and environmental compliance systems.
- Responsible for staff recruitment, training, and development of the organisation.
- Responsible for liaison with key customers, stakeholders, public and media.
- Responsible for the technical performance and regulatory compliance of the Kate Valley Landfill, Redruth Landfill in Timaru, and Fairfield Landfill in Dunedin.
- Winner of Service Industry section of 2010 Champion Canterbury Awards.

Oct 2004 – 2010

Kate Valley Landfill Manager, Canterbury Waste Services

- Responsible for financial and asset management of a \$7 million division.
- Establishment of operational facilities, the purchase of plant, recruitment of 20 operations staff for Kate Valley Landfill ready for opening in June 2005.
- Member of the winning team of Infrastructure section of 2004 IPENZ Engineering Excellence Awards
- Preparation of Landfill Management Plan, and other operational plans, as required by consent conditions.
- Operation of landfill, compliance with consents including liaison with regulatory authorities and Peer Review Panel.

- Development and maintenance of whole of life planning and long term financial plans.
- Principal liaison contact with local community including Community Liaison Group, neighbours general public.
- Preparation and presentation of financial, operational and development proposals to board of directors of Transwaste Canterbury Ltd
- Responsible for staff recruitment, training, and development.
- Development and implementation of health, safety, and environmental systems.
- Design manager, and operational reviewer, of Redruth Landfill in Timaru, and Fairfield Landfill in Dunedin.

Jan 2000 – Oct 2004

Development Manager, Canterbury Waste Services

- Briefing, management and coordination of consultant team. Collation and review of technical data for resource consent applications for Kate Valley Landfill
- Preparation and presentation of evidence for local hearings and Environment Court.
- Development of landfill and waste haulage systems, including liaison with customers
- Design Manager for the Kate Valley Landfill and associated dams, roading access and other infrastructure with a value of over \$20 million. Project designers received Gold Prize from Association of Consulting Engineers.
- Development of Alliance agreement, client representative for development and implementation of Alliance construction contract.

Oct 1993 – Dec 1999

Technical Services Manager, Waimakariri District Council.

- Management and operation of the Technical Services business unit of 12 to 15 professional/technical staff.
- Negotiating contracts, allocating and programming work, quality assurance and profitability of the unit.
- Responsible for Design Team, Development Team, Water and Waste Technical Team and Technical Records Team, including gaining of ISO accreditation for some operations.
- Project Manager for the District Development Strategy, and most major projects.
- Technical reviewer of submissions to the Waimakariri District Plan 1995 - 1997
- Engineer to Contract for most contracts, and principal contract advisor to Council.
- Author of the council's Code of Practice for Urban and Rural Development.

Sept 1989 – Oct 1993

Regional Manager/Director, T H Jenkins & Associates Consulting Engineers Ltd.

- Responsible for the successful management of the Christchurch office, and the civil design of the whole practice.
- Responsible for nine professional/technical staff, procuring commissions, allocating and programming work, quality assurance and profitability of the branch.
- Project manager for the implementation of the \$10 million Acute Services Review for CDHB including upgrading of clinical services across three sites, relocation of services to Christchurch Hospital, and relocating elective services to satellite sites.

July 1983 – Sept 1989

Contracts Manager, Pavroc Contracting (now Fulton Hogan Canterbury Ltd)

- Responsible for tendering for contracts, contract administration, allocation of people and plant resources.
- Maintenance management of a large fleet of specialised road building plant
- Management of a number of divisions with up to fifty staff throughout Canterbury.

Dec 1980 – July 1983

Site Engineer, British Pavements (renamed Pavroc Holdings in 1981).

- Supervising construction of large roading and drainage contracts throughout Canterbury.
- Design-build of a range of civil works for various institutions in the Canterbury area.
- Site Engineer for five months of the resurfacing of main runway, Nadi Airport, Fiji. Undertook all site surveying and quality control of asphalt laying operations. Responsibility for the management of runway operations with a staff of twenty-five expatriates and locals.