



Waimakariri Rural Residential Development Strategy

June 2019



Contents

FOREWORD FROM THE MAYOR.....	1
------------------------------	---

PART 1 - Introduction..... 3

What is the Rural Residential Development Strategy and Why is it Needed?	3
--	---

How has this Strategy been Developed?	4
---	---

Existing Rural Residential Areas.....	7
---------------------------------------	---

Planning Context.....	8
-----------------------	---

Identifying New Rural Residential Areas	9
---	---

PART 2 - Directions for Growth..... 11

1. Swannanoa.....	13
-------------------	----

2. Oxford.....	15
----------------	----

3. Ashley / Loburn.....	17
-------------------------	----

4. Gressons Road	19
------------------------	----

PART 3 - Making it Happen.....21

Strategy Implementation	21
-------------------------------	----

Monitoring and Review	22
-----------------------------	----

LINKS TO FURTHER INFORMATION.....	23
-----------------------------------	----

GLOSSARY OF TERMS	24
-------------------------	----

ACRONYMS.....	24
---------------	----

APPENDICES.....	25
-----------------	----

Appendix 1: Constraints and Opportunities Maps.....	25
---	----

Appendix 2: High Level Servicing and Flood Hazard Assessments	35
---	----

Foreword from the Mayor

The Waimakariri District Council is pleased to present the Waimakariri Rural Residential Development Strategy. This document provides an important decision-making framework that drives the future of our rural residential zones and help us review our current Waimakariri District Plan.

People love to live in the Waimakariri District for many reasons. One of those reasons is that we provide so many different living choices. This District offers the very best of town and country. Our rural residential areas in particular are proving to be hugely popular in offering a semi-rural, manageable lifestyle that provides space and a sense of community. Taking a strategic approach to proactively manage rural land for rural residential use by enabling 'clustered' locations for development also helps to protect the balance of our rural land for productive and rural character purposes.

Our District continues to grow and the number of households is set to increase solidly over the next 30 years. As part of this growth, we are expecting a demand of about 385 rural residential homes over the next ten years. We already have many great rural residential zones around the District, some historic, some new, from the periphery of Oxford in the west, to Waikuku Beach in the east, and many well established rural residential hubs like Mandeville, Ohoka and Fernside in between.

It is important we carefully and appropriately plan for the growth of further rural residential development in our role as a planning authority and key service/infrastructure provider, and to ensure we continue to meet the community's needs. In doing so, we need to be mindful of known environmental and other constraints and opportunities on a location-by-location basis, to safeguard our people and land, while taking into account the wider planning framework within which we operate.

With this in mind, this Strategy now enables a number of growth locations for further rural residential development that are considered suitable for rezoning.

This Strategy is underpinned by expert advice, technical information, and importantly, what you have told us you value about our District through a number of forums including your submissions on the draft Rural Residential Development Strategy and through our recent survey of Residential 4 Zones and San Dona Olive Groves households. We

are truly thankful for your contribution and feedback to get us to this final strategy and are excited about the future of our rural residential areas.



A handwritten signature in dark ink that reads "David Ayers". The signature is fluid and cursive.

David Ayers
Mayor of Waimakariri District



Part 1- Introduction



What is the Rural Residential Development Strategy and Why is it Needed?

This Strategy provides the framework for the future provision of land zoned for rural residential purposes in the Waimakariri District. The Waimakariri District has experienced sustained growth pressures for some years and this is set to continue with growth projected over the next thirty years. This includes anticipated demand for housing choice in areas providing for rural and rural residential living.

Rural residential development is the subdivision and use of land to cater for the needs of those wishing to live within a rural or semi-rural setting, therefore enabling living choices for the people of Waimakariri District. Rural residential development also efficiently manages the demand for semi-rural living by identifying 'clustered' locations for development, which helps to manage the balance of rural land for primary production and rural character purposes. Rural residential development

currently occurs in areas zoned 'Residential 4A' or 'Residential 4B' in the Waimakariri District Plan. It generally involves between one and two households per hectare and some higher density 'large lot' residential development consisting of between two and four households per hectare.

This Strategy identifies growth locations for rural residential development across the whole Waimakariri District to meet a projected demand of approximately 385 rural residential households over the next 10 years. It provides a review and update of the Council's current Rural Residential Development Plan adopted in 2010; however the original plan only focused on rural residential development in the eastern part of the District, which accords with the Greater Christchurch Urban Development Strategy (UDS) area. Directions identified in this Strategy also have a key role in informing the review of the Waimakariri District Plan.

As with other forms of development, the Council's role as a planning authority and key service/infrastructure provider for the District

means it is necessary for it to consider and plan for rural residential development. As part of this, it is necessary to take into account regional planning initiatives and frameworks, as well as issues, strengths and constraints that determine the suitability of particular growth locations. This ensures positive and sound outcomes are achieved for the community. However, this Strategy does not rezone land in its own right. It identifies growth locations that are considered suitable for rezoning and the District Plan Review is then the vehicle for implementation.

This Strategy has now been adopted by Council. It follows community engagement through a public consultation process where Council sought comments on a draft Rural Residential Development Strategy. This final Strategy is based on feedback received through this process and other relevant information including expert advice.

How has this Strategy been Developed?

This Strategy has not been developed from scratch. In June 2010, the Council adopted the original Waimakariri Rural Residential Development Plan. By taking into account factors such as rural and rural residential character and amenity, settlement and community, environment, water and wastewater provision, and the transport network, the original Rural Residential Development Plan proposed rural residential growth at a number of locations in the eastern Greater Christchurch area of the District.

The Plan has been a successful vehicle to providing clarity and directions for rural residential development that has occurred following its adoption and as a result, 344 additional lots were generated in Mandeville, Ohoka and southeast Woodend.

Almost ten years on, it is timely to update the 2010 Plan to manage the next 10 years of rural residential development. This updated Rural Residential Development Strategy now applies to the whole Waimakariri District for completion and fair representation of supply, as opposed to the eastern Greater Christchurch area only.

The review was also driven by the Waimakariri District Plan Review. The growth directions determined in this final Rural Residential Development Strategy directly informs relevant chapters of the reviewed District Plan, which is intended to be notified mid-2020.

Existing relevant internal information was drawn on to help assist in understanding community values. As part of the District Plan Review, topic specific issues and options papers were released for public comment in October 2017. Feedback revealed a public desire to concentrate rural residential development around nodes or clusters of existing settlements and to provide smaller lots for rural residential living.

Expert external advice was also sought to provide relevant context and background information necessary to developing this Strategy and the growth directions within it.

In June 2018, Boffa Miskell Ltd completed a Rural Character Assessment for the Waimakariri District, to inform the management of activities and effects within and around the District's Rural Zone, including the relationship with rural residential activities and small-lot rural development.

In December 2018, QV completed a Rural Subdivision and Lifestyle Property Analysis for the Waimakariri District to inform the demand for and supply of small holding rural lots (4-7.99ha) and rural residential (0.25-2ha) property in the District.

Internal Inquiry by Design workshops were held in late 2018 to identify and refine potential locations for further rural residential development.

In order to better understand how people living in, and/or owning property in, the District's current Rural Residential Zones (and San Dona Olive Groves area adjacent to Mandeville) view the area they live in, the Council invited all residents living in these areas to complete a survey in December 2018. The objective was to gain insight into property size preferences, character and amenity preferences and property turnover. Around 350 surveys were completed and the findings have informed some of the directions in this document.

The development of this Strategy has been informed and overseen by the Council's District Planning and Regulation Committee (DPRC), which has responsibility, among other things, for activities relating to planning for growth and development strategies.

A Rural Residential Development Strategy project webpage was developed as an accessible and extensive public portal of material. This contains all background reports and other information and dates relating to the project.

A draft Rural Residential Development Strategy was released for public consultation for one month from March 2019, and a number of drop-in sessions were held during this time. The Council received 143 submissions and a hearing was held at the end of April 2019. The comments received, together with other relevant information and technical advice, have informed this final Strategy.

Figure 1 demonstrates the project development process.

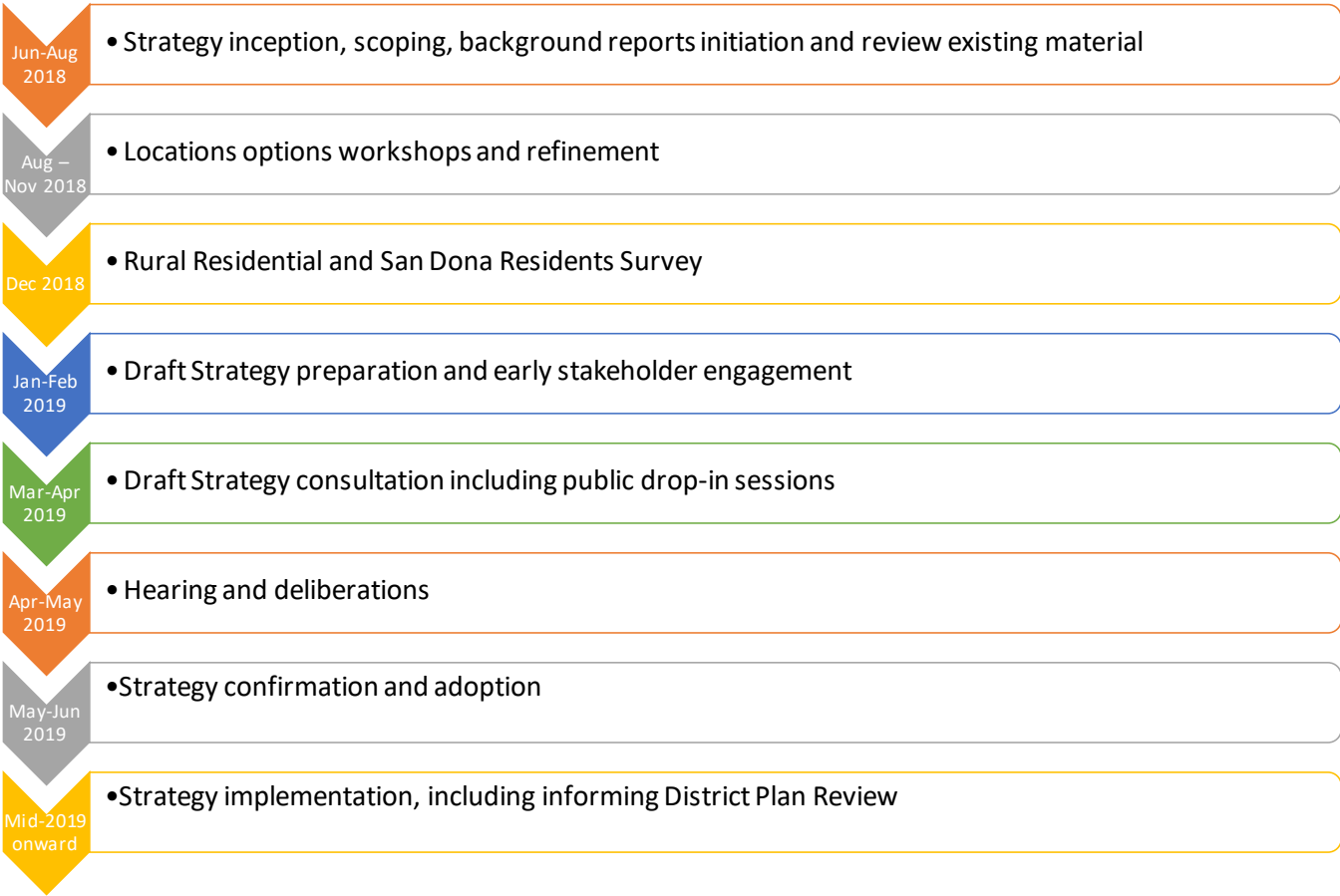


Figure 1: Project development process

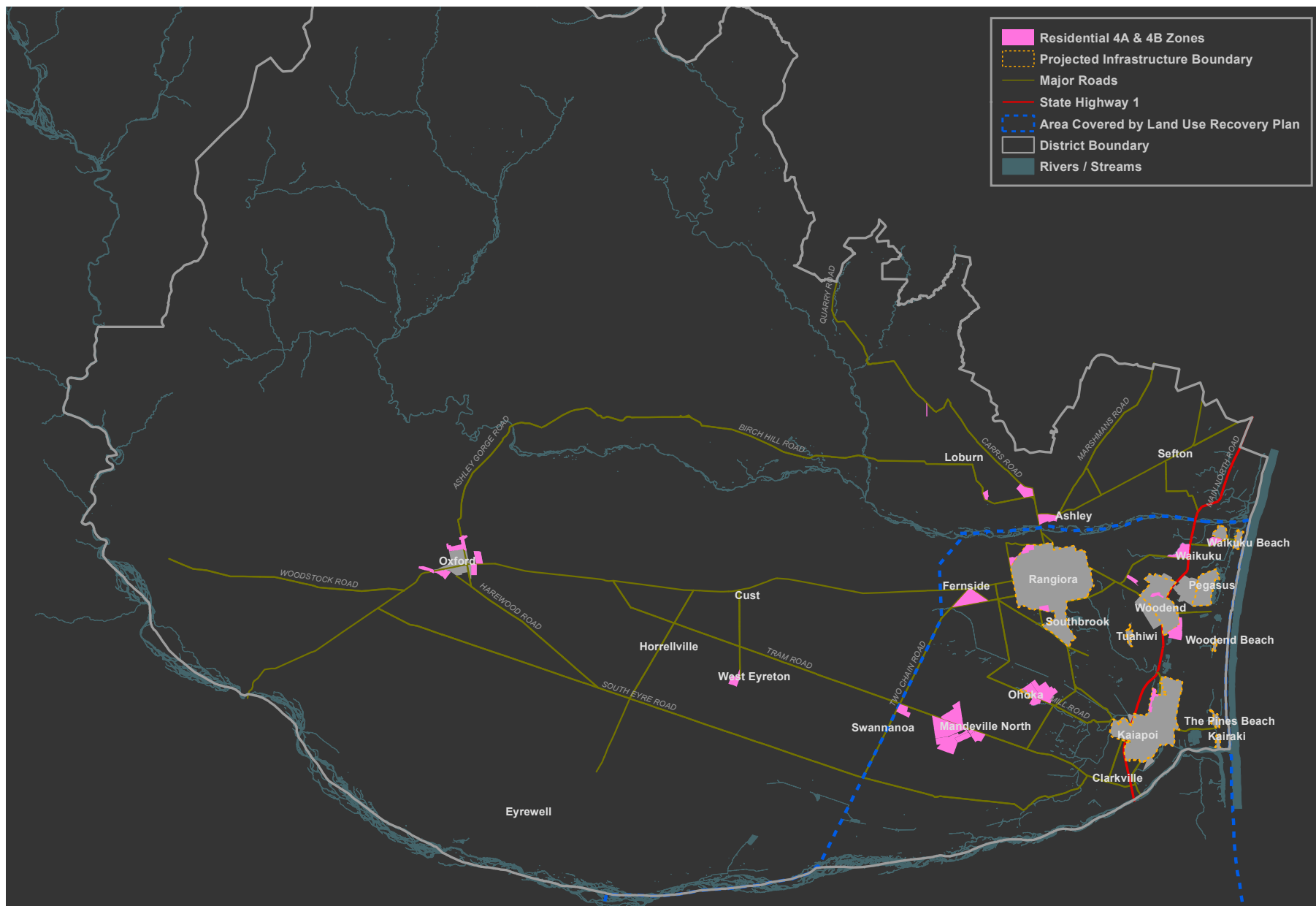


Figure 2: Existing rural residential zones

Existing Rural Residential Areas

At the time of adoption of this Strategy, there were more than fifteen zoned rural residential locations across the District, from Oxford in the west of the District, through to Waikuku Beach in the east of the District, totaling more than 1,200 individual properties (see Figure 2).

Rural residential locations vary greatly in size, from a small cluster of only eight properties north of Loburn, to some 460 addresses at Mandeville, which encompass more than 350 hectares of land.

The 2005 Waimakariri District Plan refers to rural residential development as Residential 4A or 4B Zones. These zones are intended to exhibit the following characteristics:

- Predominant activity is residential;
- Detached dwellings and associated buildings;
- Some limited farming and horticulture;
- Dwelling density is lowest for Residential Zones;
- Dwellings in generous settings;
- Average lot size of 0.25-1.0 hectare;
- Limited number of lots located in a rural environment;
- Rural style roads or accessways;
- Opportunity for a rural outlook from within the zone;
- Few vehicle movements within the zone;
- Access to zones not from arterial roads;

- Community water and/or wastewater schemes; and
- Kerb, channelling and street lighting.

In the interest of maintaining rural character, the District Plan also requires each Rural Residential Zone to have an average lot size to allow for a mix of sizes. The average is 5000m² for Residential 4A Zones and one hectare for Residential 4B Zones. The intent is to simplify rural residential zoning to a single zone and density across the District, in accordance with the CRPS which requires rural residential development in Greater Christchurch to develop at an average density of one to two households per hectare. This will be addressed in the District Plan Review.

Some of the District's older Residential 4A and 4B Zones were created from the former 'rural residential' zones, developed under previous Council / District schemes. These zones generally allowed for small scale farming and living within the rural area.

During the late 1970s and 1980s, development within these zones was generally slow to moderate. Zones within the eastern District have tended to develop at a greater pace than those in the west, reflecting their proximity to employment hubs including Christchurch and the amenities of the District's main towns. Most of the zones established later, by way of private plan changes, have developed relatively quickly.

Some of the District's Residential 4A and 4B Zones have extended since being established as rural residential zones under previous County/ District Schemes, and/or later following the implementation of the 2010 Rural Residential Development Plan.

Some rural residential zones, such as at Chinnerys Road in Woodend, River Road / Ballarat Road in Rangiora, South Belt in Rangiora (undeveloped), and northwest Kaiapoi, are situated within the Projected Infrastructure Boundary (PIB). The PIB is identified by the CRPS and provides additional urban development capacity for the District's main towns. The PIB was determined by the Land Use Recovery Plan (LURP) to assist rebuilding and recovery of communities in the Greater Christchurch area. The intent is to 'up-zone' these rural residential zones within the PIB to a residential zone so long-term urban growth of these main towns can be accommodated. This will be subject to a separate process through the District Plan Review.

The San Dona subdivision, north of Tram Road at Mandeville, was established in the 1990s, comprising small lots for olive production. Today, San Dona comprises around 115 households, and is similar to rural residential in nature and scale with lot sizes ranging from approximately 1.2 hectares to 2.2 hectares, however it is zoned rural. Rezoning this area to rural residential was considered, but deemed impractical, due to servicing constraints, flooding and access issues.

The existing rural residential zones have a mix of infrastructure including Council maintained and operated wastewater and water reticulations, private water supplies or wells, and collectively run private wastewater schemes. Some households have individual on-site septic tanks and disposal fields. There are also rated drainage areas in parts of the District for stormwater.

Between 2000 and 2018, the Council has issued 465 building consents for new dwellings in a rural residential zone. Figure 3 shows slower housing development in the early 2000s, followed by an upturn from 2012 and a noticeable spike in 2013 (97 new consents). This was a result of displacement effects caused by the Canterbury earthquakes which saw the District become home to many new residents and existing District residents relocating within the District.

There is a current capacity of around 260 lots within the existing rural residential zones that are either vacant or could be subdivided to rural residential zone size. The Waimakariri District requires approximately 385 further rural residential lots/households to meet demand over the ten year life of this Strategy. This figure takes into consideration both data from Statistics New Zealand Population Estimates to determine the historical level of development in existing rural residential areas and the assumption that demand for rural residential properties over the next ten years remains broadly similar to that of the most recent ten years. Current capacity of around 260

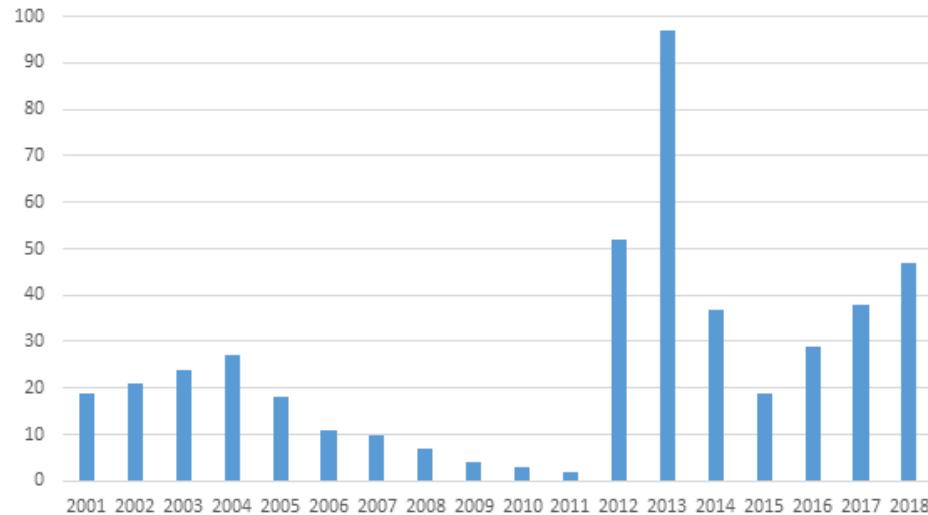


Figure 3: Building consents for new dwellings in rural residential zone (Residential 4A/4B)

lots suggests an additional 120 lots/households could be required to meet this demand. This Strategy identifies locations to meet this need. A general range is adopted for the purpose of this Strategy as the concept of demand is fluid. Demand could be affected by a number of factors including a potential offset in current supply by way of 'up-zoning' existing rural residential zones within the PIB to an urban residential zone; introducing a single rural residential zone; and a potential downturn in the creation of small holding lots sizes in the Rural Zone.

Planning Context

This Strategy is set within a wider strategic planning context to ensure that it contributes to coordinated and sustainable development, responds to community needs, and ultimately

meets the purpose of the Resource Management Act (RMA) of promoting sustainable management of natural and physical resources.

Where provided for, District Plans are required to adopt an appropriate and comprehensive zoned approach to new rural residential development to manage effects arising from this based on the demands, constraints and opportunities within respective districts. New rural residential development within the Greater Christchurch UDS area (which applies to the eastern part of the Waimakariri District, see Figure 2) must be provided for only in accordance with an adopted rural residential strategy, at a density of 1 to 2 households per hectare, and be located in areas zoned for such development, maintaining and improving the functioning and qualities of the existing urban area.

The CRPS sets out a number of locational and design matters, including that all rural residential subdivision and development must be located so that it can be economically provided with a reticulated sewer and water supply integrated with a publicly owned system, and appropriate stormwater treatment and disposal. Individual property access must be provided to a sealed road, but not directly to a Strategic Road, Arterial Road or State Highway. An Outline Development Plan (ODP) must be prepared which sets out an integrated design for subdivision and land use, and provides for the long-term maintenance of rural residential character. A rural residential development area shall not be regarded as in transition to full urban development. Furthermore, the location and design of any proposed rural residential development shall:

- Avoid noise sensitive activities occurring within the 50 dBA Ldn air noise contour surrounding Christchurch International Airport;
- Not compromise the operational capacity of the Rangiora Airfield;
- Support existing or upgraded community infrastructure and provide good access to emergency services;
- Avoid significant reverse sensitivity effects with adjacent rural activities, including quarrying and agricultural research farms, or strategic infrastructure;
- Avoid significant natural hazard areas;

- Avoid significant adverse ecological effects, and support the protection and enhancement of ecological values;
- Support the protection and enhancement of ancestral land, water sites, wāhi tapu and wāhi taonga of Ngāi Tahu;
- Where adjacent to or in close proximity to an existing urban or rural residential area, be able to be integrated into or consolidated with the existing settlement; and
- Avoid adverse effects on existing surface water quality.

The Greater Christchurch Partnership review of the strategic land use planning framework, Our Space 2018-2048, includes land use and development proposals to ensure sufficient development capacity for housing and business growth across Greater Christchurch to 2048. The Review, required under the National Policy Statement on Urban Development Capacity (NPSUDC), provides for additional growth in urban areas and efficient infrastructure; balances future demands of housing and business growth while still achieving good urban form; identifies locations for housing growth to 2048 and reinforces the role of key centres for retail/office floor space while confirming sufficient industrial land provision. Overall, it provides an allocation of future households in a Greater Christchurch context, with 1,500 to 2,000 additional households provisionally allocated to Waimakariri District over the next ten years.

This allocation includes a portion in a rural residential setting.

The Waimakariri District Council adopted a District Development Strategy (DDS) in July 2018, which provides direction for growth and development over the next 30 years. This document considers the natural environment, growing communities, the rural area and small settlements, connections, the economy and centres, and community spaces and places. In planning for the provision of rural residential development, the DDS confirms the Council will focus on creating new rural residential areas, and directs it to review the 2010 Rural Residential Development Plan. This final Strategy now supersedes the 2010 Plan.

Lastly, the updated Waimakariri District Plan, by way of revised chapters, objectives, policies and rules relating to rural residential development, will become the vehicle to implement growth directions set within this final adopted Rural Residential Development Strategy. The reviewed District Plan is intended to be notified in mid-2020.

Identifying New Rural Residential Areas

The growth directions for future rural residential development in Part 2 of this Strategy were informed by examining key environmental, social and infrastructure constraints and opportunities at a District level. Factors considered include the location of any historic and archaeological sites; biodiversity sites and biodiversity values; versatile

soils; soil drainage; intensive farms; slope of land; irrigation areas; natural hazards including fault lines, liquefaction susceptibility areas, tsunami evacuation areas, flooding risks, overland flow paths, and groundwater levels; and major electricity pylons and other infrastructure assets such as wastewater ponds.

The location of any cultural sites, silent file areas, wāhi tapu and wāhi taonga sites were considered with particular reference to the significance of Ngāi Tahu objectives, issues and policies for natural resources and environments management in the region, as set out in the Mahaanui Iwi Management Plan (IMP).

The constraints and opportunities maps are provided in Appendix 1.

Two internal Inquiry by Design workshops were held to identify potential District-wide locations for future rural residential development, in the context of known environmental constraints and opportunities. Workshops were held with Council staff in August and the Council's DPRC in October 2018. Proposed locations, including those identified in the 2010 Rural Residential Development Plan but that had not yet been developed, were then considered and shortlisted by assessing them against seven key criteria. Proposed locations were excluded from further consideration if they were:

1. Within high flood hazard areas
2. Within undeveloped areas inside of the existing PIB of the District's main eastern towns

3. On the direct edges of main towns outside of the Infrastructure Boundary thereby foreclosing more intensive long-term urban development
4. Not connected to existing rural residential nodes or small settlements
5. Not able to economically connect to the network scheme for wastewater
6. Within the Christchurch International Airport noise contour
7. Within areas that would compromise the operational capacity of the Rangiora Airfield.

In addition to these criteria, three suggested areas were excluded from further consideration due to their 'special circumstances' status. These include Fernside (within Environment Canterbury's Ashley River Breakout area therefore subject to flood hazard challenges); Mandeville (a Mandeville Growth Boundary has been in place since 2012 to limit further sprawl, which will be carried over into the Proposed Waimakariri District Plan, in addition to undercurrents / groundwater resurgence, high groundwater levels and overland flows issues); and Tuahiwi (comprises Māori Reserve land with historical agreements that influence ongoing use and development).

Five remaining growth areas were then proposed in a draft Strategy and public comments invited in March/April 2019. Taking into account feedback received together with other relevant technical information, this final Strategy now confirms four

areas for future rural residential development. Individual proposed growth directions, based on a location-by-location assessment of local constraints and strengths, are determined and outlined in more detail in Part 2.

Part 2- Directions for Growth



This Rural Residential Development Strategy confirms four areas for growth of rural residential development across the District.

These are:

1. Swannanoa
2. Oxford
3. Ashley / Loburn
4. Gressons Road (north of Woodend)

The following pages provide an overview of each of these areas, including their strengths and constraints relating to further rural residential development, more defined individual directions for growth, and an area map.

A glossary of terms is provided on page 24.



1. Swannanoa

Swannanoa is located approximately 14km west of Kaiapoi. The existing Residential 4B Zone was developed in 1995 and comprises 30 lots on approximately 30 hectares. It is bounded by Two Chain Road to the west and Tram Road to the north.

The area is surrounded by Rural Zone lots ranging from 4 hectares to 20 hectares. Swannanoa School is located on Tram Road, immediately east of the rural residential area, and north of Tram Road is the Swannanoa Domain Reserve. It is connected to the Council's reticulated water supply and wastewater scheme (Eastern District Sewer Scheme) and is not within a rated drainage area.

Strengths

Overall, the Swannanoa area enjoys the following strengths relevant to further rural residential development:

- Potential connectivity to reticulated water and wastewater services; existing capacity in both networks
- Close proximity to local school and domain
- Outside of identified active fault lines and not subject to liquefaction risk or coastal hazards
- Not near high voltage transmission lines infrastructure
- No mapped notable/protected trees, vegetation and habitat sites, heritage sites, wāhi tapu sites, wāhi taonga sites or silent file areas nearby

- Good transport connections via Tram Road
- Clear from flood hazard shown in Environment Canterbury's Ashley River breakout modelling
- Good support for more rural residential development at Swannanoa through submissions on the draft Strategy.

Constraints

In general, the Swannanoa area faces some environmental and other constraints:

- Council Localised Flood Hazard Modelling shows some low to medium flood hazard, particularly to the south and east
- High groundwater conditions and possible groundwater resurgence issues
- Medium soil drainage
- A local airfield located further to the east
- Versatile soils to south and east that should be protected for productive rural activities
- An intensive poultry farm operating further to the south
- Outside of rated drainage scheme.

Growth Directions

Taking into account identified local strengths and constraints, further rural residential development will be enabled to the north and west of the existing Rural Residential Zone, as shown in Figure 4.

These directions largely avoid versatile soils and flood hazard areas more prevalent to the south.

Some key underlying landowners in these directions have signalled their support for rural residential development through the submission process on the draft Strategy.

Appropriate connectivity, particularly to the school, across Tram Road and Two Chain Road will need to be considered in any development proposal.

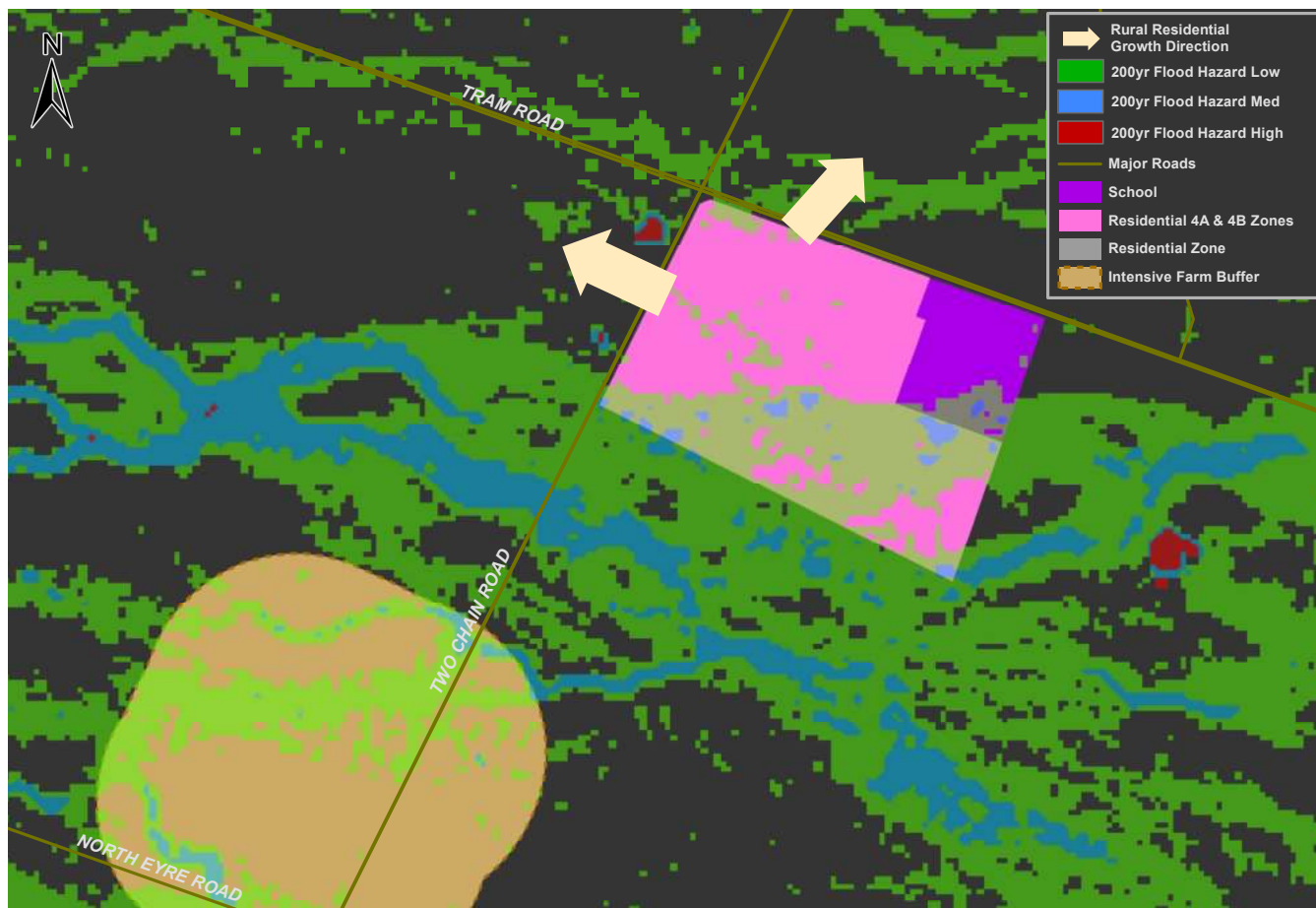


Figure 4: Swannanoa rural residential growth direction



Figure 5: Swannanoa area aerial map 2016

2. Oxford

Oxford is a town located approximately 33km west of Rangiora, at the base of the foothills. Five rural residential areas (Residential 4A Zone) surround the town to the north, east, southeast, west and southwest comprising a total of 159 lots.

The town has a reticulated water supply (Oxford Urban Water Supply and Oxford Rural No 2 Supply), and a reticulated wastewater network. Oxford has the Oxford Urban and Oxford Rural East rated drainage areas.

As an established town, Oxford is home to many facilities and services including an area school, town hall, library and service centre, parks and reserves, as well as a range of shops in the Oxford town centre. Industrial land is also provided in the southeast of the town.

Strengths

Overall, the Oxford area offers a number of strengths that support further rural residential development:

- Oxford is well served by community and social infrastructure including a library, area school, town hall, sports fields
- Close proximity to retail and services available in the Oxford town centre, and other business activities in the southeastern business area
- Proximity to local employment opportunities available in the established Oxford town

- Extension of rural residential areas will not have a major impact on the character of existing areas, or the town, given the established scale of Oxford
- Medium soil drainage to the south, high to the southwest, east, north and northwest
- Potential connectivity to reticulated wastewater network and drainage rated area
- No mapped notable plants/protected trees, vegetation and habitat sites, heritage sites nearby
- No mapped wāhi tapu site, wāhi taonga sites or silent file areas nearby
- Oxford Road provides good transport network connections
- No issues with liquefaction or coastal hazards
- Clear from flood hazard shown in Environment Canterbury's Ashley River breakout modelling.

Constraints

The Oxford area also faces some environmental and other constraints:

- Council Localised Flood Hazard Modelling shows some areas of low to medium localised flooding to the east, west and north
- Oxford has some drainage challenges due to the absence of a well-developed stormwater pipe network
- Versatile soils to north and northwest should be protected for productive rural activities

- Some distance from the District's main eastern towns thus potentially creating a larger community reliant on commuting
- Proximity to identified active fault line
- Some pockets of low soil drainage to the north and northwest
- High voltage transmission lines infrastructure situated to the south
- Some existing capacity in Oxford Rural No 2 water supply; planned upgrades would be required to be brought forward thereafter
- Areas identified for future urban expansion should be avoided.

Growth Directions

In light of these local constraints and opportunities, rural residential development will be enabled to the north and southeast of Oxford, as shown in Figure 6.

These areas largely avoid flood hazard areas particularly prevalent to the southwest and northeast. They also avoid areas directly adjacent to the existing urban Residential Zone of Oxford protected for long-term residential growth and signalled in the Council's DDS, for example the area to the immediate east of the Residential 2 Zone towards the current Rural Residential Zone. The southern growth direction will create improved urban form by joining two existing but fragmented rural residential zoned areas. Most key underlying landowners in these directions have signalled their

support for rural residential development through the submission process on the draft Strategy.

Caution will need to be applied to avoid any potential reverse sensitivity issues that could

arise from proximity to the Wastewater Treatment Plant and established business activities on Harewood Road.

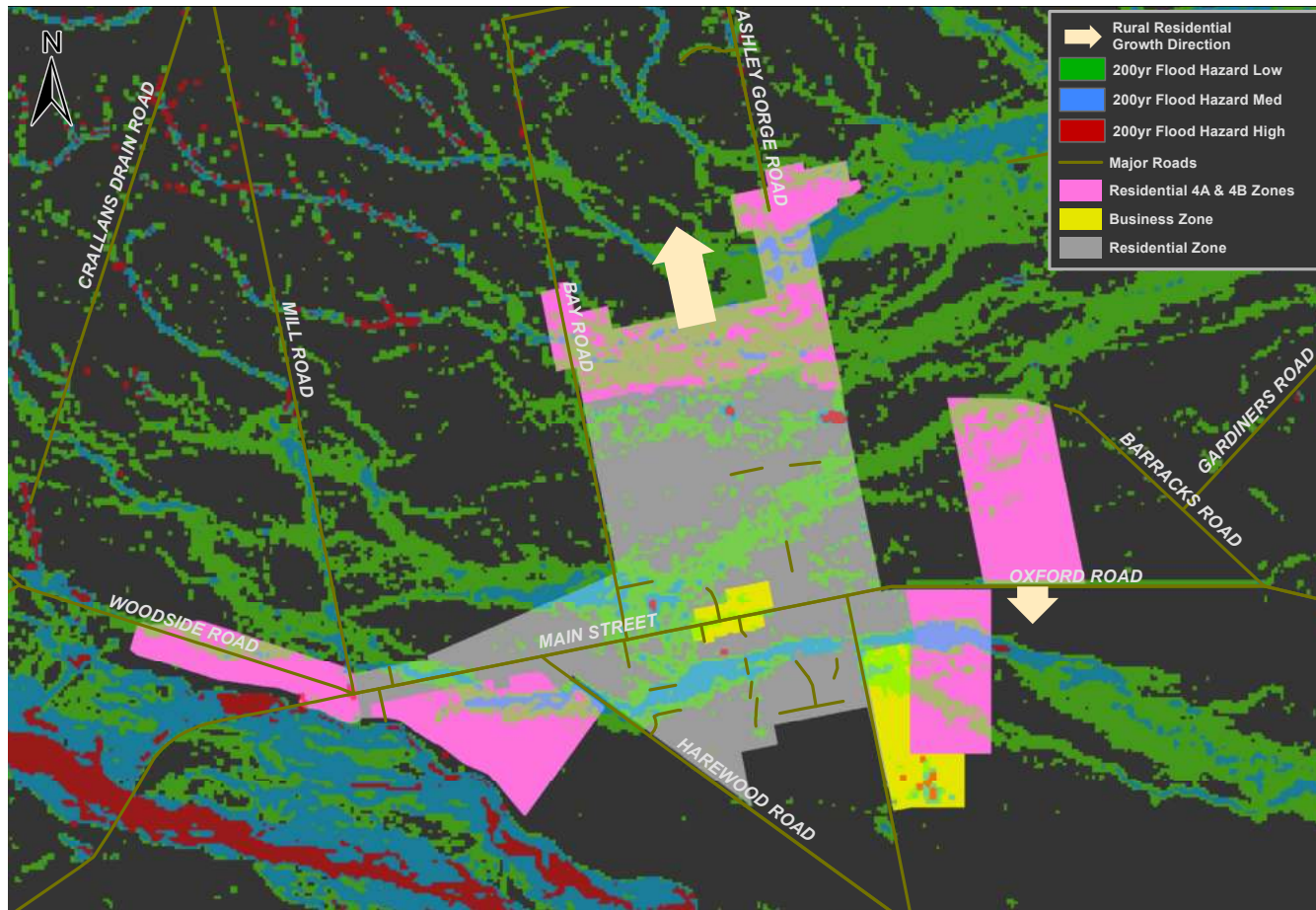


Figure 6: Oxford rural residential growth directions



Figure 7: Oxford area aerial map 2017

3. Ashley / Loburn

The Ashley area borders the northern banks of the Ashley River. The Residential 3 Zone village (approximately 16 hectares) comprises 107 lots and the Residential 4B Zone (approximately 43 hectares) area comprises 35 lots. The Loburn Lea Residential 4B Zone area is located north of the Ashley area (approximately 40 hectares) and contains 44 lots. These areas are surrounded by Rural Zone lots.

The Loburn Domain Pavilion and Loburn School are located northwest of Loburn Lea and Ashley School is located in Ashley Village. Rangiora is located on the south banks of the Ashley River and provides a wide range of community facilities, social infrastructure, retail and service offerings, as well as employment opportunities.

The area is not part of a reticulated wastewater network so wastewater disposal currently occurs via on-site septic tanks and disposal fields. The area is serviced by the Hurunui District Water Supply. Loburn Lea is within a rated drainage area while the Ashley area is not.

Strengths

Overall, the Ashley / Loburn area offers a number of strengths that support further rural residential development:

- No issues relating to liquefaction or coastal hazards
- Well connected to Rangiora via upgraded Ashley Bridge

- Existing local community hall and very close to Rangiora's abundant community facilities and social infrastructure
- Close proximity to retail, services and industrial activities available in Rangiora
- Proximity to local employment opportunities available in Rangiora
- No nearby intensive farms
- No nearby mapped protected trees/notable plants, vegetation and habitat sites, heritage sites, wāhi tapu sites, wāhi taonga sites or silent file areas
- Rated drainage area for Loburn Lea area therefore potential to connect to this
- Ability to connect to reticulated wastewater, provided a sufficient number of new lots is planned to make it viable, with existing capacity in the network
- Clear from flood hazard shown in Environment Canterbury's Ashley River breakout modelling
- Vast support for more rural residential development at Ashley/Loburn through submissions on the draft Strategy.

Constraints

The Ashley / Loburn area also faces some environmental and other constraints:

- Under Hurunui District Council water supply which has minimal existing capacity; pipe upgrades would be required once this capacity has been met

- Council Localised Flood Hazard Modelling shows some low to medium flood hazard
- Near an identified active fault line
- Widespread areas of versatile soils that should be protected for productive rural activities
- Low soil drainage
- High voltage transmission lines infrastructure nearby
- No existing rated drainage area for Ashley area.

Growth Directions

Taking into account these local constraints and opportunities, rural residential development will be enabled to the east of Loburn Lea and to the north of Ashley village, as shown in Figure 8.

These areas are relatively free from localised flood hazard and some of the underlying lots are large in size and in single ownership, which may make potential development more practicable. However, it is acknowledged that the growth directions do impact on land with versatile soils. Most key underlying landowners in these directions have signalled their support for rural residential development through the submission process on the draft Strategy.

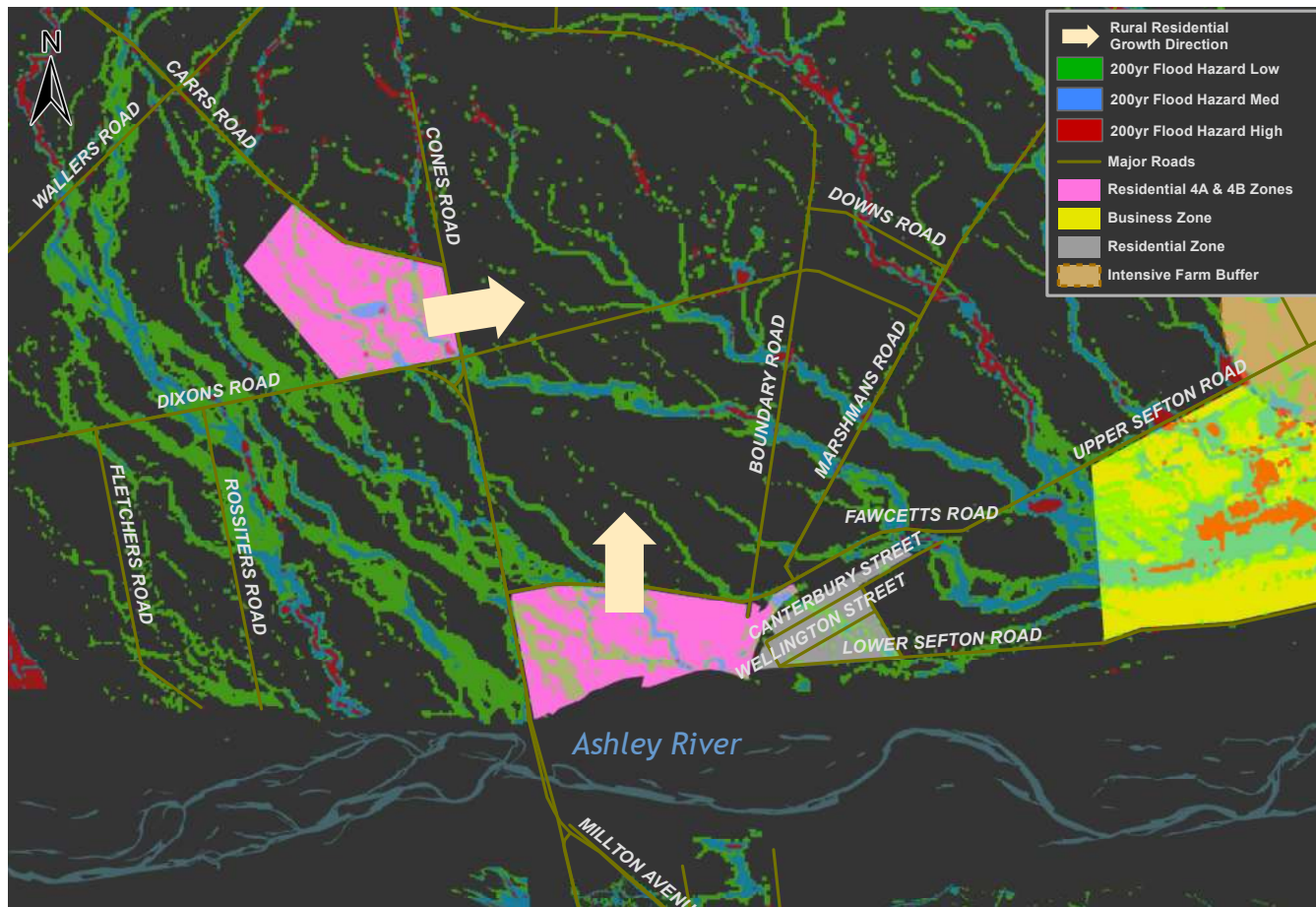


Figure 8: Ashley / Loburn rural residential growth directions



Figure 9: Ashley / Loburn area aerial map 2016

4. Gressons Road

The Gressons Road Residential 4B area comprises approximately 53 hectares and 56 lots. It is located 3km north of Woodend and Pegasus, and 3km west of Waikuku Beach. The area is bounded by State Highway 1 / Main North Road to the east, Gressons Road to the south, and the Waikuku Stream to the north and west.

The area does not contain any community facilities or amenities, however, it is in close proximity to Woodend and Pegasus and their associated community facilities and social infrastructure.

The area is not currently connected to a reticulated wastewater network so wastewater disposal occurs via individual septic tanks. Similarly, the area is not currently connected to a reticulated water supply, which means water is sourced via individual bores. However, given the area's relatively close proximity to Woodend, Pegasus and Waikuku, connecting to these reticulated networks is possible with sufficient growth. The location is within a rated drainage area.

Strengths

Overall, the Gressons Road area offers a number of strengths that support further rural residential development:

- Close proximity to Woodend and Pegasus which have abundant community facilities and social infrastructure in place

- Close proximity to State Highway 1 providing good transport connections
- Medium soil drainage to the south and east, high soil drainage to the north
- Council Localised Flood Hazard Modelling shows only some small areas of low flood hazard surrounding the existing Residential 4B area. Areas to the south and east of the existing Residential 4B area are clear from medium to high flood hazard under Environment Canterbury's Ashley River Breakout Flood Modelling.
- Outside of identified active fault lines
- Within a rated drainage area
- No high voltage transmission lines infrastructure nearby
- No nearby mapped notable plants, vegetation and habitat sites or heritage sites.

Constraints

The Gressons Road area also faces some environmental and other constraints:

- Silent File Area SF017 Pekapeka to the south
- Within a Liquefaction Susceptibility Area
- Potential for coastal hazard issues including groundwater level rise associated with sea level rise
- Largely surrounded by versatile soils, except for a small portion to the northeast

- Low soil drainage to the west
- Council Localised Flood Hazard Modelling and Environment Canterbury's Ashley River Breakout Flood Modelling shows some medium to high flood hazard to the north and northwest of the existing Residential 4B area.

Growth Direction

Taking into account these various constraints and opportunities, further rural residential growth will be enabled to the south of the existing Residential 4B settlement, as shown in Figure 10.

This area is relatively free from localised flood hazard and avoids the potential community severance associated with State Highway 1. It also allows a greater level of integration with the existing settlement via Gressons Road. The key underlying landowner is in support of rural residential development at this site.

It is acknowledged the growth direction is within a Silent File Area indicating the presence of significant wāhi tapu or wāhi taonga somewhere in the area. Therefore, consultation with Ngāi Tūāhuriri is particularly important in order to identify effects of the activity and to avoid, remedy or mitigate those effects. It is also acknowledged that the growth direction does impact land with versatile soils.

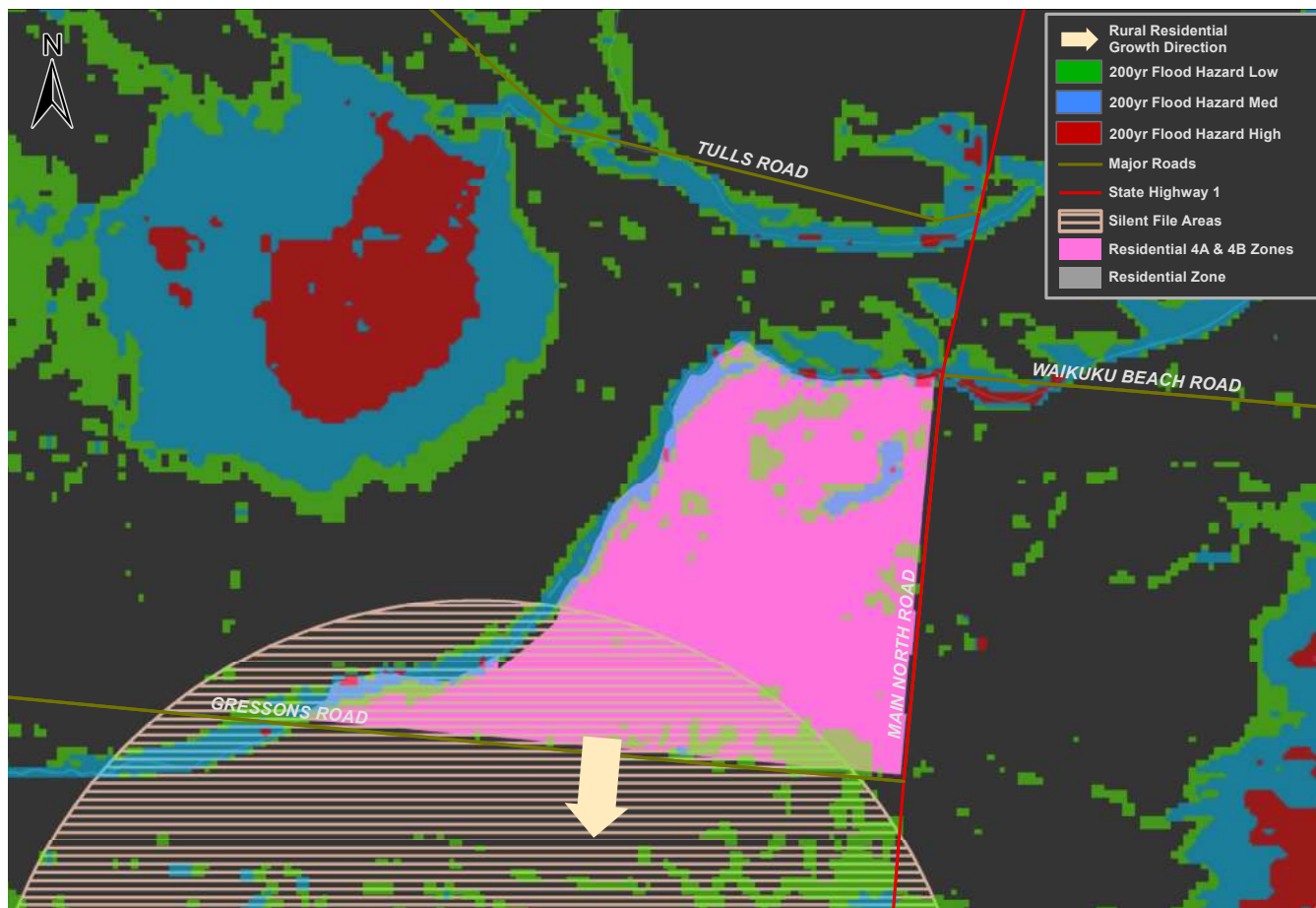


Figure 10: Gressons Road rural residential growth direction



Figure 11: Gressons Road area aerial map 2017

Part 3- Making it Happen



Strategy Implementation

The purpose of the Rural Residential Development Strategy is to determine directions for rural residential growth.

The Waimakariri District Plan Review process is the key vehicle through which the Rural Residential Development Strategy will be implemented. The Proposed Waimakariri District Plan, with revised objectives, policies and rules relating to rural residential development, is intended to be publicly notified in mid-2020.

Most likely the Proposed Waimakariri District Plan will apply a 'Rural Residential Growth Area Overlay' (or similar) which indicates that the area is identified for rural residential development and subsequent rezoning. This will be accompanied by District Plan provisions to enable this approach. Upon notification of the Proposed Waimakariri District Plan, landowners interested in developing their land have the opportunity to submit on the Proposed Waimakariri District Plan, requesting that the land be rezoned rural residential.

The Rural Residential Development Strategy site selection process involved determination of constraints at a relatively high level. Therefore, landowners interested in having their land rezoned will need to provide more detailed assessments to support their submission (or as part of a separate private plan change application) that demonstrate their land is suitable for rezoning for rural residential use. These investigations typically address flood hazard; stormwater, water and wastewater servicing; transportation; geotechnical; and soil contamination. Council has a regulatory role to review such investigations with a high level of scrutiny. District Plan Review decision makers (or in the case of a private plan change application, the decision makers assigned to that private plan change) will then decide, based on the evidence provided, whether the land should be rezoned for rural residential use.

The design of growth areas and / or individual sites is outside the scope of this draft Strategy. However, the use of sustainable and 'green' designs and innovations are encouraged to create sustainable communities and environments.

Monitoring and Review

It is important that the Waimakariri District Council is accountable and committed to the desired outcomes identified in this Strategy. This document has a ten year life from adoption, but will be checked in 2022 in order to reconcile it against other work including the review of the Waimakariri District Plan. The quantum of anticipated and/or actual land rezoned for rural residential use as an outcome of this Strategy and the District Plan Review will then be better known and will inform this exercise.

The Council's DPRC will have an ongoing role in overseeing the implementation of this Strategy, by way of its responsibility for district development matters and the rezoning of any rural land to rural residential.

Change in household numbers in the rural residential zones will be continually monitored via the Council's records of building consents for new residential dwellings. In addition, the Council is responsible for producing quarterly reporting on indicators relating to housing and business development capacity under the National Policy Statement on Urban Development Capacity (NPS-UDC) and the associated Our Space 2018-48 regional partnership framework for household allocation.



Links to Further Information

Background Reports

This Strategy has been informed by a number of background and technical reports and community surveys. These are available on the Rural Residential Development Strategy project webpage.

waimakariri.govt.nz/ruralresidential

Waimakariri District Development Strategy (DDS)

The Waimakariri District Development Strategy, which was adopted in 2018, guides the District's anticipated residential and business growth over the next 30 years.

waimakariri.govt.nz/your-council/district-development

Waimakariri District Council Long Term Plan 2018-2028 and Annual Plan 2018/19

The Long Term Plan describes Community Outcomes for the District and activities of the Council as well as setting out a long-term focus for the decisions and activities of the Council. The Long Term Plan was adopted by the Council in June 2018. The annual plan contains proposed changes to the work programme and budgets, and key considerations for the Council to address during 2018/19.

waimakariri.govt.nz/your-council/council-documents

Waimakariri District Plan (WDP)

The Waimakariri District Plan manages land use and subdivision activities within the District.

waimakariri.govt.nz/property-and-building/planning/district-plan

Land Use Recovery Plan (LURP)

The Land Use Recovery Plan sets out a policy and planning framework necessary for metropolitan greater Christchurch to rebuild existing communities; develop new communities; meet the land use needs of businesses; rebuild and develop the infrastructure needed to support these activities; and take account of natural hazards and environmental constraints that may affect rebuilding and recovery.

ecan.govt.nz/your-region/plans-strategies-and-bylaws/land-use-recovery-plan

Canterbury Regional Policy Statement 2013 (CRPS)

The Canterbury Regional Policy Statement 2013 provides an overview of the resource management issues in the Canterbury region, and the objectives, policies and methods to achieve integrated management of natural and physical resources. The methods include directions for provisions in district and regional plans.

ecan.govt.nz/your-region/plans-strategies-and-bylaws/Canterbury-regional-policy-statement

National Policy Statement on Urban Development Capacity 2016 (NPS-UDC)

The NPS-UDC sets out the objectives and policies for providing for development capacity under the Resource Management Act 1991.

mfe.govt.nz/publications/towns-and-cities/national-policy-statement-urban-development-capacity-2016

Our Space 2018-48, Greater Christchurch Settlement Pattern Update

The Greater Christchurch Settlement Pattern Update was out for consultation in November 2018. It outlines land use and development proposals to ensure there is sufficient development capacity for housing and business growth across Greater Christchurch to 2048.

greaterchristchurch.org/nz/ourspace

Mahaanui Iwi Management Plan (IMP)

The IMP provides a values-based policy framework for the protection and enhancement of Ngāi Tahu values, and for achieving the relationship of Ngāi Tahu with local natural resources.

mkt.co.nz/iwi-management-plan

Glossary of Terms

Council Localised Flood Hazard Modelling

Rain on grid flood modelling based on 0.5% Annual Exceedance Probability (AEP).

Environment Canterbury Ashley River Breakout Flood Modelling

Flood modelling undertaken by Environment Canterbury which combines Ashley River breakout and localised flooding. Note, this was modelled on a 1%, 0.5% and 0.2% Annual Exceedance Probability (AEP) for the Ashley River Breakout scenarios.

Intensive Farm Buffer

Area potentially affected by odour associated with intensive farming activity (poultry, piggery or cattle).

Wāhi taonga

Places treasured due to their high intrinsic values and critical role they have in maintaining a balanced and robust ecosystem (eg. Spawning grounds for fish, nesting areas for birds and freshwater springs).

Wāhi tapu

Places of significance that have been imbued with an element of sacredness or restriction (tapu) following a certain event or circumstance

Silent File Area

An area indicating the presence of significant wāhi tapu or wāhi taonga somewhere in the area. Consultation with Ngāi Tūāhuriri is particularly important when considering development within these areas in order to identify effects of the activity and to avoid, remedy or mitigate those effects.

Versatile Soils

Land classified as Land Use Capability I or II in the New Zealand Land Resource Inventory. Versatile soils are part of the soil resource that will support the widest range of productive uses with the least inputs.

Acronyms

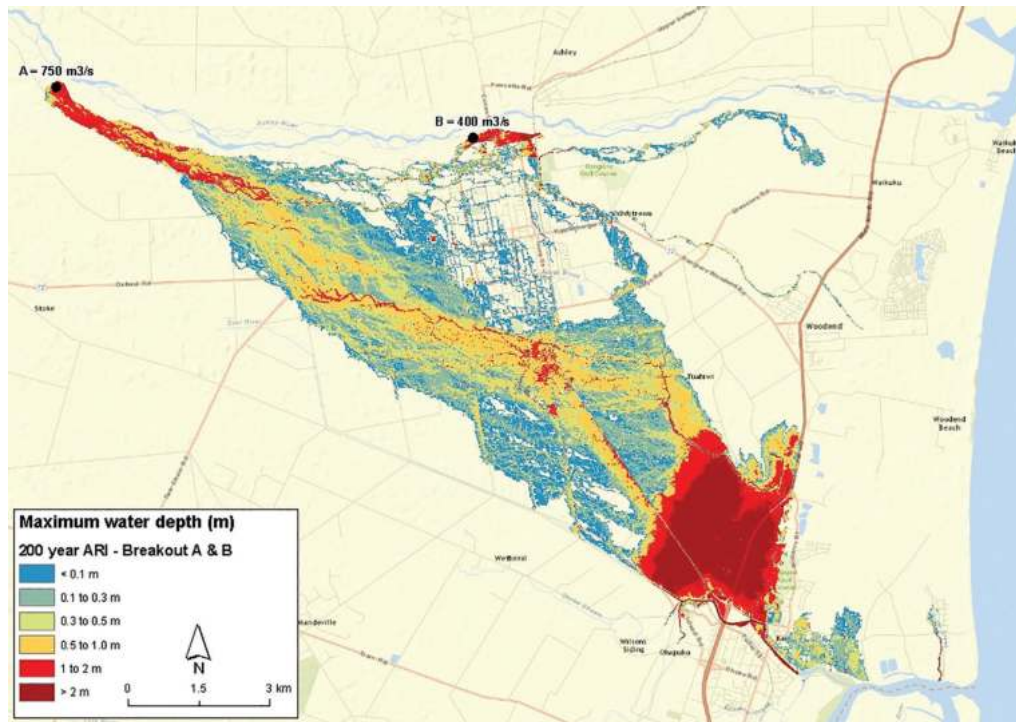
CRPS	Canterbury Regional Policy Statement
DDS	Waimakariri District Development Strategy
DPRC	District Planning and Regulation Committee
IMP	Iwi Management Plan
LURP	Land Use Recovery Plan
ODP	Outline Development Plan
PIB	Projected Infrastructure Boundary

NPS-UDC	National Policy Statement on Urban Development Capacity
RMA	Resource Management Act
RRDP	Rural Residential Development Plan 2010
STEP	Septic tank effluent pump
UDS	Greater Christchurch Urban Development Strategy
WDP	Waimakariri District Plan

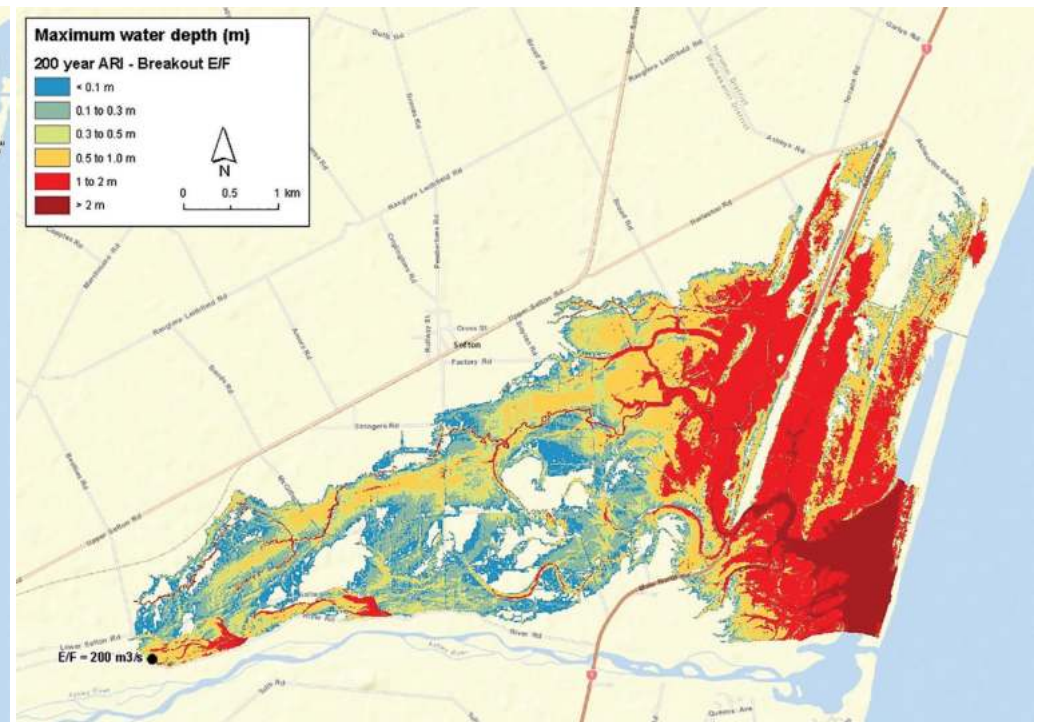
Appendices

Appendix 1: Constraints and Opportunities Maps

Ashley River Floodplain



Ashley River Floodplain



Waimakariri District Fault Lines



Canterbury Fault Awareness Areas 2018

- Definite
- Likely
- Possible
- More detailed mapping available

Ashley Fault Zone Active Fault Lines 2014

- Definite
- Likely
- Possible
- Regional Boundaries
- Territorial Authority Boundaries
- State Highways

Map created by Environment Canterbury

Liquefaction Susceptibility



Liquefaction Susceptibility

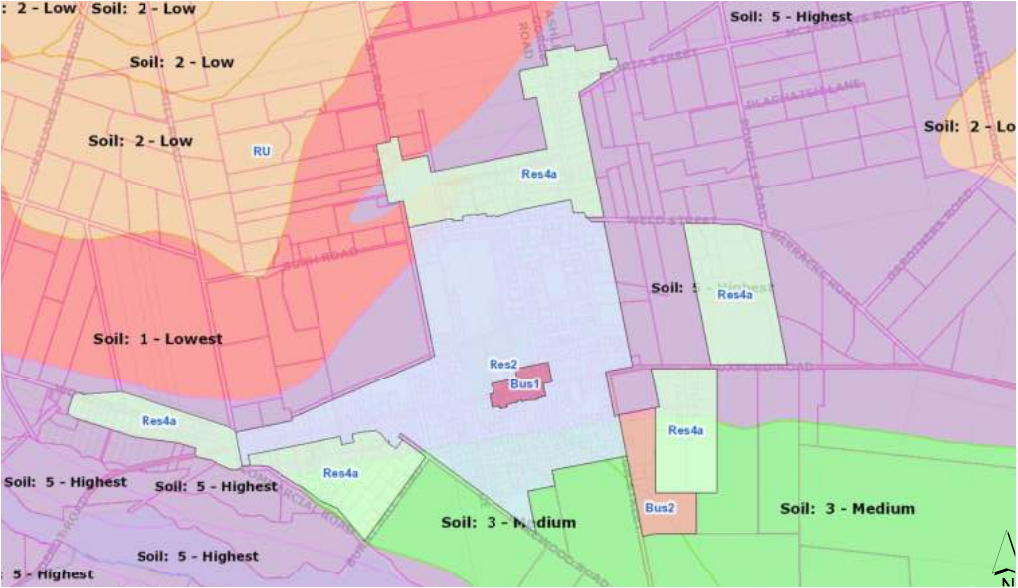
- Liquefaction Susceptibility Lines
- ▨ DBH TC zoned
- DBH not zoned
- Damaging liquifaction unlikely
- ▨ Liquefaction assesment needed
- Regional Boundaries
- ▭ Territorial Authority Boundaries
- State Highways
- Roads

Map created by Environment Canterbury

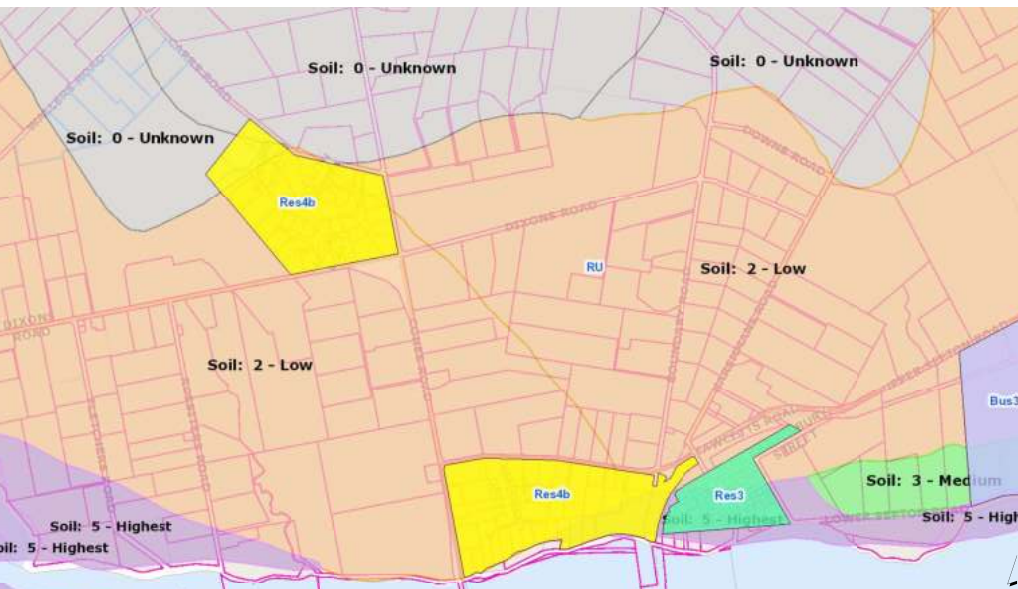
Swannanoa Soil Drainage (1 = lowest to 5 = highest)



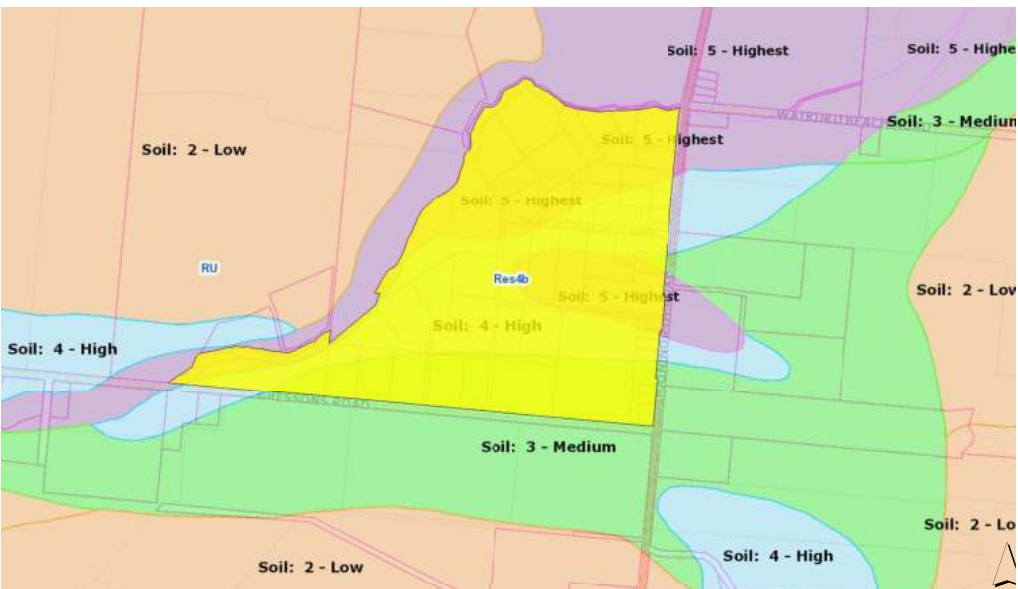
Oxford Soil Drainage (1 = lowest to 5 = highest)



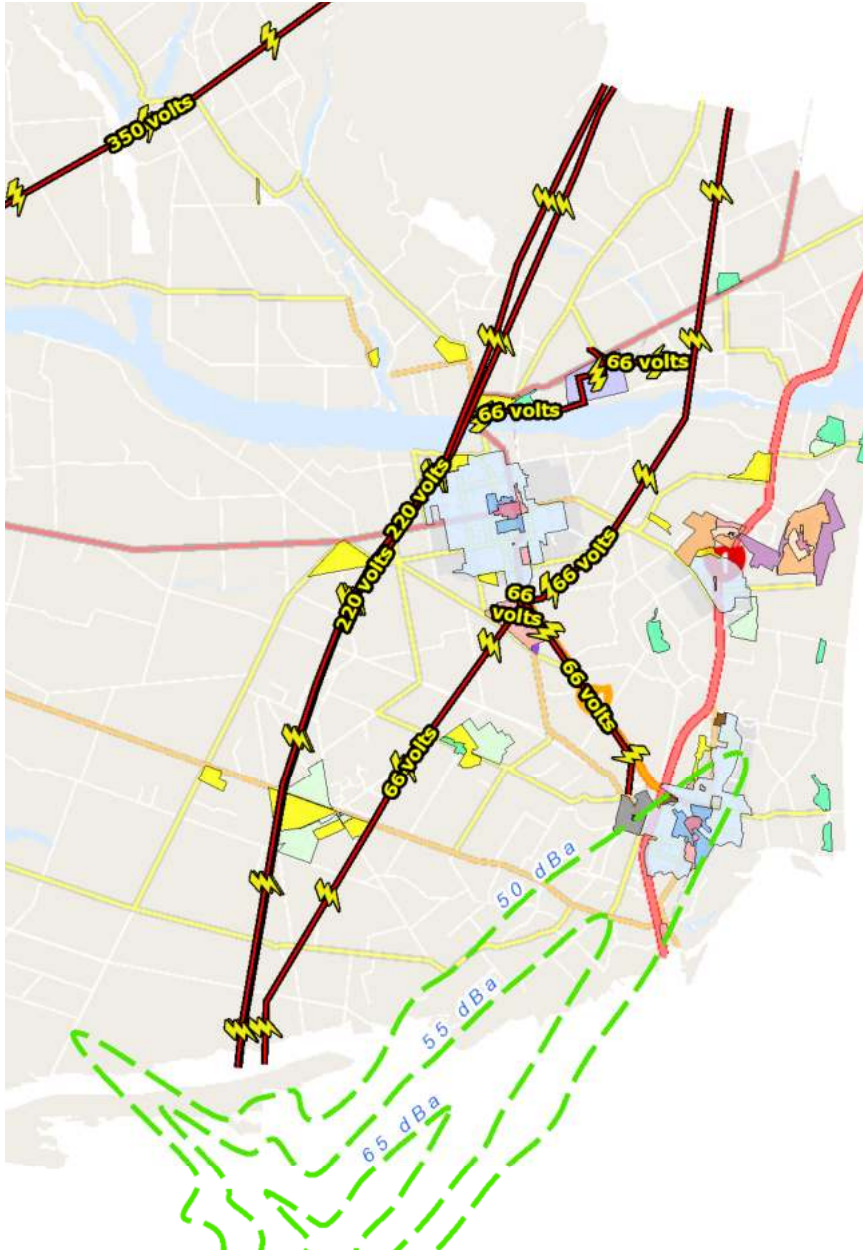
Ashley Loburn Soil Drainage (1 = lowest to 5 = highest)



Gressons Road Soil Drainage (1 = lowest to 5 = highest)



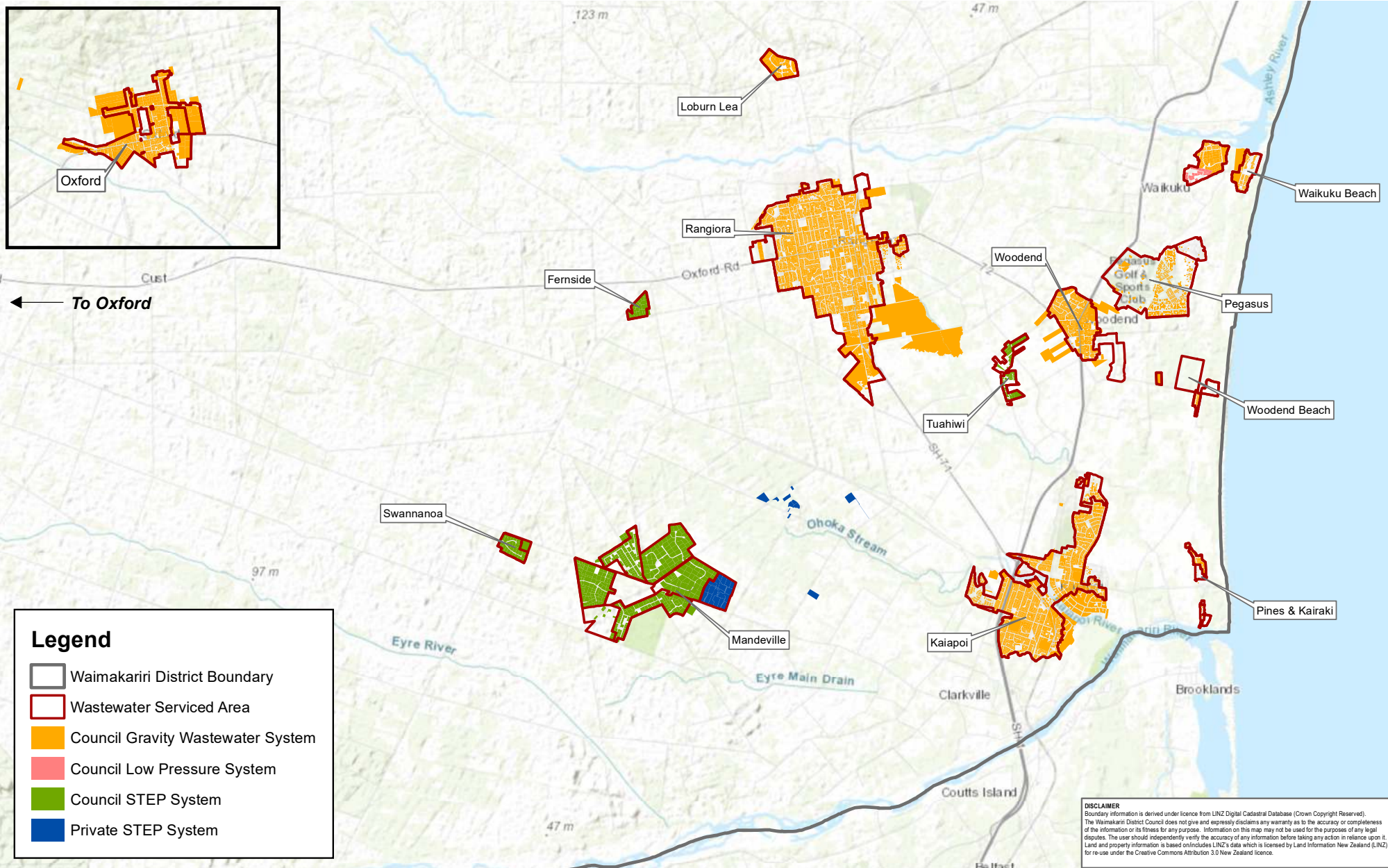
Transmission Lines and Airport Noise Contour - Eastern District



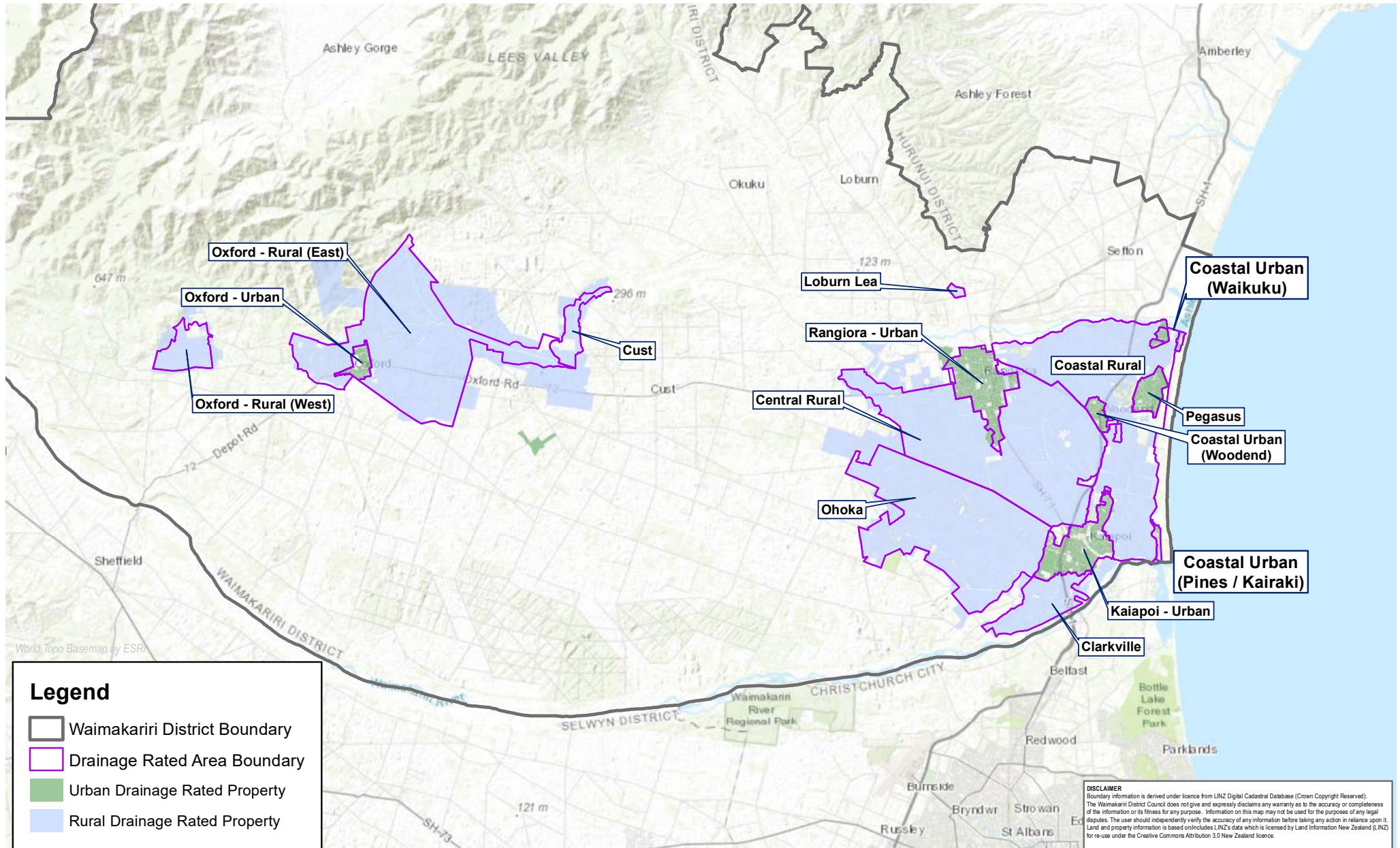
Transmission Lines and Airport Noise Contour - Oxford Area



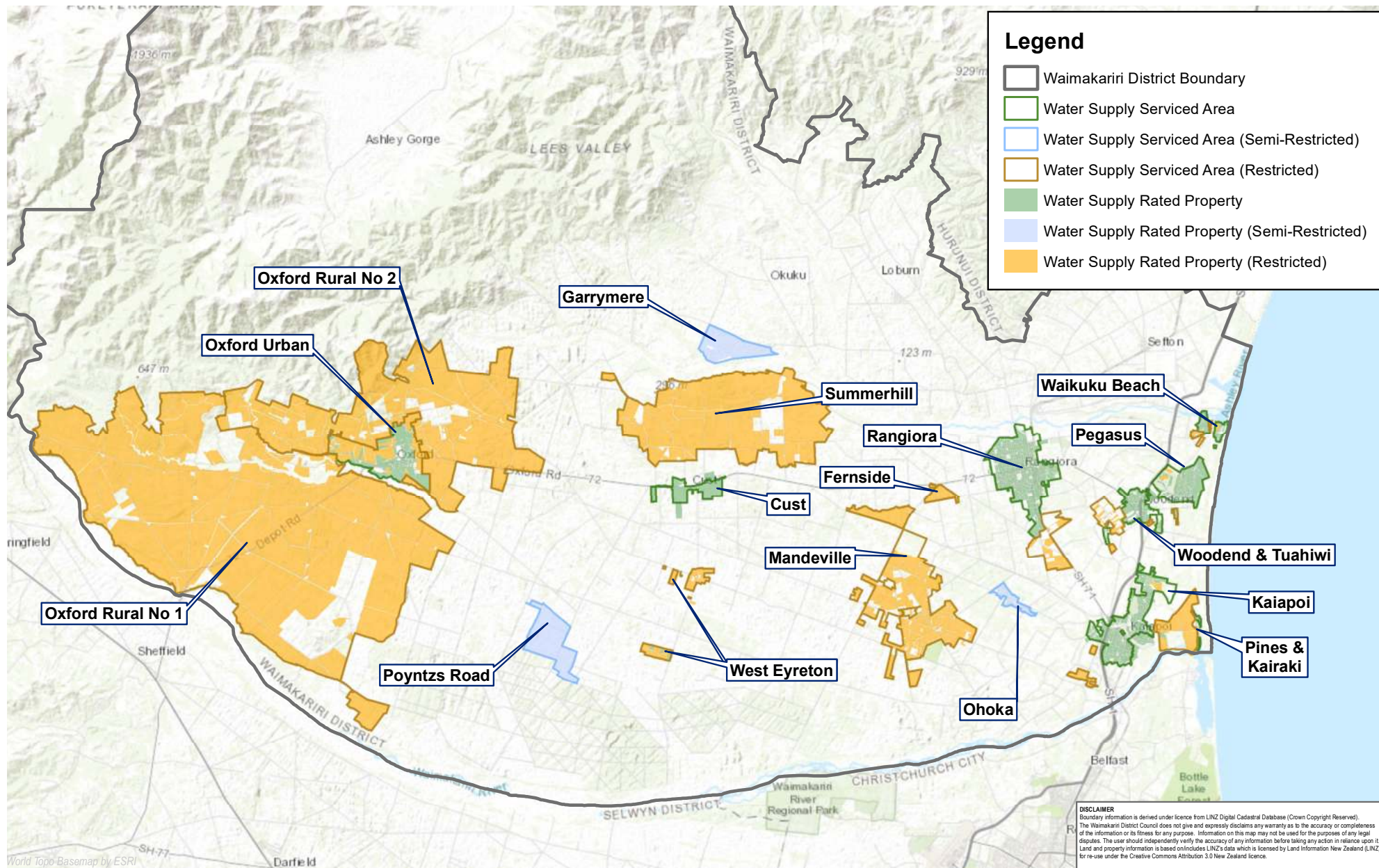
Waimakariri Wastewater Scheme Boundaries



Waimakariri Drainage Scheme Boundaries



Waimakariri Water Scheme Boundaries

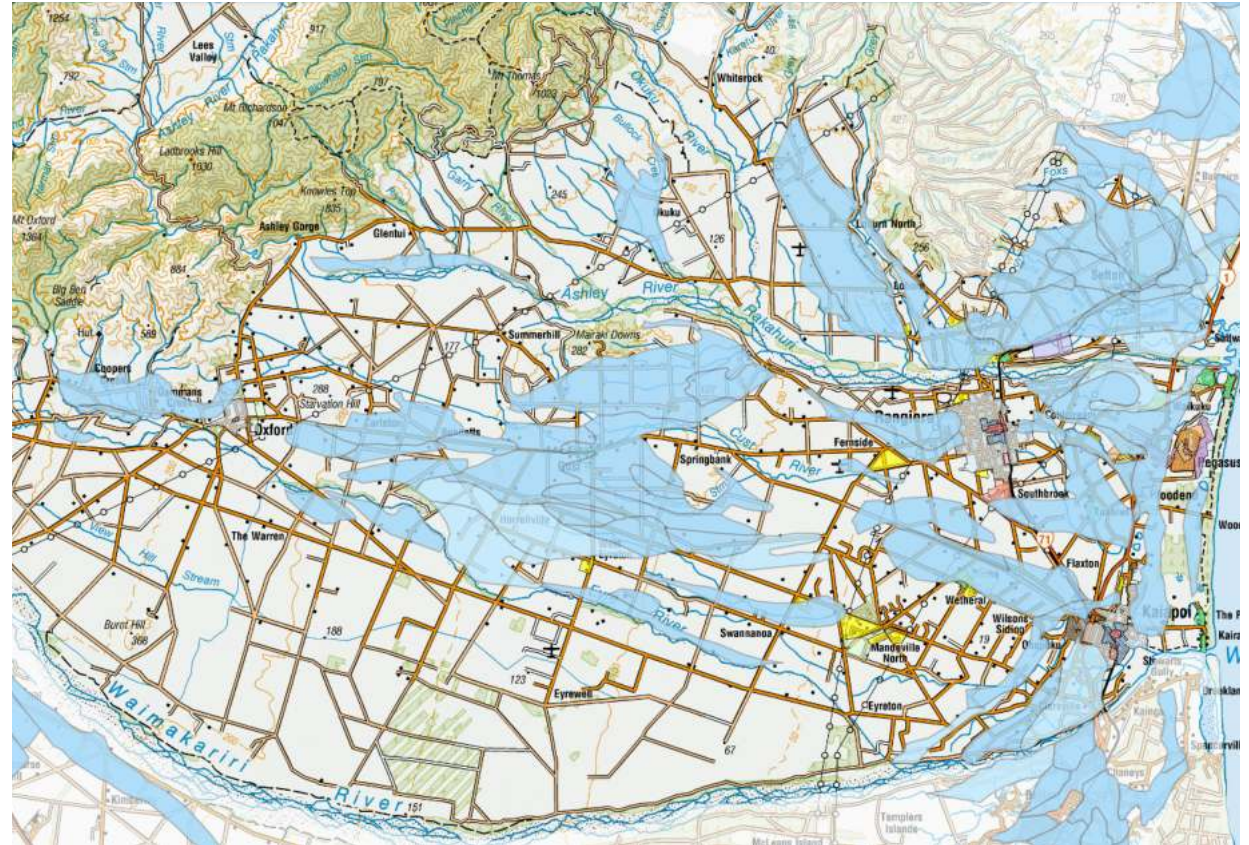


Sites of Significance



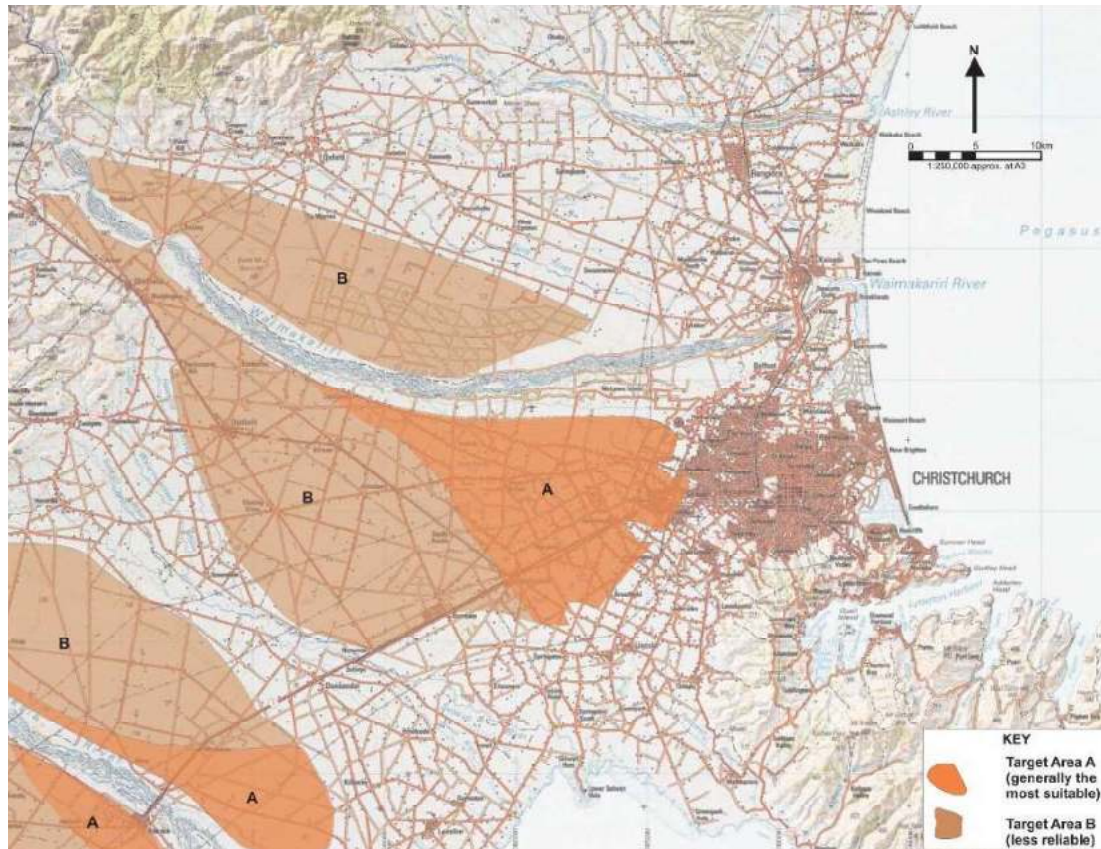
Green shaded circles indicate the presence of significant wāhi tapu or wāhi taonga somewhere in the area. Therefore, consultation with Ngāi Tūāhuriri is particularly important in order to identify effects of the activity and to avoid, remedy or mitigate those effects.

Versatile Soils



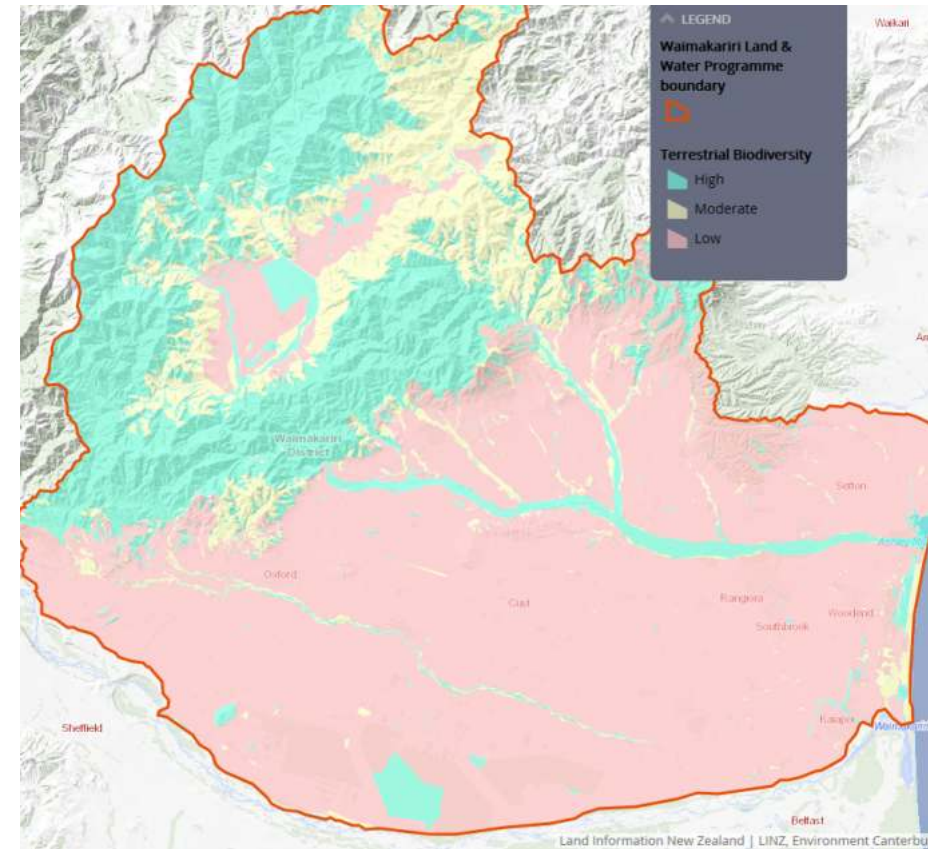
Blue shaded areas indicate land classified as land use capability I or II in the New Zealand Land Resource Inventory

High Quality Aggregate



Target sub regions in the Central Canterbury Plains and Christchurch area where gravel sediments are the most likely to be geologically suitable for aggregate and the groundwater table is generally more than 6m below the ground surface.

Biodiversity Value Map



Appendix 2: High Level Servicing and Flood Hazard Assessments

The following is a summary of the high level servicing capacity and flood hazard assessments provided by the Council's 3 Waters Unit to inform the Rural Residential Development Strategy site selection process. The primary purpose of these assessments was to identify any areas with significant flaws with respect to infrastructure services and flood hazard. This was done by considering the capacity of existing infrastructure to service a hypothetical 50 lot and 100 lot rural residential density development, including some comment regarding flood hazard risks.

The Following Points were also Considered:

- Planned infrastructure upgrades;
- Key assumptions;
- Development Contributions;
- Critical mass (e.g. 50 lots or 100 lots would make the surrounding area connecting to reticulated wastewater feasible); and
- Any other matters relevant in identifying the high level flaws or opportunities for an area.

Key Assumptions were:

- Water supplied will only be a restricted supply, and that wastewater connections would be pressure systems, which require homeowners to install a small tank and pump system on their property

- Standard Council policy with respect to management of flood risk applies, including that any development is required to mitigate the effects of increased runoff, with on-site works to retain and treat runoff
- The time span for the assessments is 10-15 years to match the life of the reviewed Waimakariri District Plan which is anticipated to be operative around 2022. Therefore, its next review, 10 years later, would be in 2032
- Development Contributions are calculated from the published Development Contributions for the 2018/2019 year. It is noted these Development Contributions are subject to change as part of the 2019/2020 Annual Plan, which is currently being finalised and includes updated 2019/2020 Development Contributions. Development Contributions are not applicable for drainage as developers are required to carry out any works necessary to mitigate the effects of increased runoff.

The Areas Assessed were:

- Swannanoa
- Ashley / Loburn
- Oxford
- Ohoka
- Gressons Road
- Mandeville
- Sefton

- West Eyreton
- Cust
- Woodend

However, the following summary only covers the assessment undertaken for the four growth areas confirmed in this Strategy. The First Cut Criteria Assessment which outlines why a number of other areas were excluded can be found on the project webpage waimakariri.govt.nz/ruralresidential.

Swannanoa

Water supply – The current water supply network has capacity to accommodate the hypothetical 50 and 100 additional lots. Upgrades are needed to meet Council's capacity standard and a new well is planned for 2024/2025 to address this. Additional storage will be required, which is planned for within the Long Term Plan. Depending on the location of a new development, additional reticulation may be required, at the developers cost. Refer to Table 1 for costs associated with connecting to the reticulated network.

Wastewater - The reticulated wastewater network delivers wastewater to the Rangiora treatment plant (Eastern District Sewer Scheme) and has capacity to accommodate the hypothetical 50 and 100 lots. There would likely be a need for new local reticulation, at the developers cost. Refer to Table 1 for costs associated with connecting to the reticulated network.

Drainage and flood hazard - Swannanoa is outside any rated drainage scheme. It is part of a wider area that suffers from high groundwater and drainage problems during storm events. While good drainage is available when groundwater levels are low, soak pits cannot be relied upon to manage stormwater for any new developments and secondary flow paths would need to be considered. Any stormwater management capital works that were put in by the developer, would need to be maintained, so a new drainage scheme rated area may need to be set up, or the nearby Ohoka rated drainage area extended. Any proposed development should avoid any significant overland flow paths shown on Council's Localised Flood Hazard Modelling for the 0.5% Annual Exceedance Probability event.

Ashley / Loburn

Water supply - The water supply network to the north of the Ashley River supplies both Waimakariri District and Hurunui District residents and is managed by Hurunui District Council. The existing reticulation would only be able to support 50 new lots, with a pipe upgrade required to service more than this. A new hydraulic model is being developed which will allow for more accurate assessments of the network capacity. The primary source for the southern end of this network is located adjacent to the northern side of the Ashley River in the vicinity of Beatties Road. Recent source upgrades to the northern end of the network has meant that there

is adequate source supply for some growth at the southern end of the network, although it should be noted that the supply does not currently fully meet the New Zealand Drinking Water Standards. Refer to Table 1 for costs associated with connecting to the reticulated network.

Wastewater – The area could connect to the Eastern District Sewer Scheme, which has capacity, via the Rangiora reticulated wastewater network. Refer to Table 1 for costs associated with connecting to the reticulated network. If Loburn and Ashley residents also connected, the cost per lot would come down.

Drainage and flood hazard - There is no drainage rated area in this area. A drainage rated area would need to be set up to maintain any flood mitigation works built during any development. Any development would be required to mitigate stormwater effects. Flooding has occurred around Cones Road, Fawcetts Road and Max Wallace Drive, and minor overland flow has occurred south of Carrs Road. Any proposed zoned areas for rural residential should avoid any significant overland flow paths shown on Council's Localised Flood Hazard Modelling for the 0.5% Annual Exceedance Probability event.

Oxford

Water supply – It is assumed that any development would be connected to the Oxford Rural No. 2 network. The current network could

service an additional 50 lots however any more than this would necessitate bringing forward construction of the new reservoir, which is currently planned and budgeted for 2025/2026. Refer to Table 1 for costs associated with connecting to the reticulated network.

Wastewater – The current Oxford reticulated wastewater network has capacity to accommodate the hypothetical 50 and 100 lots. Depending on the location, and assuming the new development was a pumped pressure scheme, it is likely that any new development would be able to discharge into this scheme. Refer to Table 1 for costs associated with connecting to the reticulated network.

Drainage and flood hazard - Oxford has some drainage challenges due to the absence of a well-developed stormwater pipe network. However any new development would be required to mitigate its stormwater effects, and extend the drainage rated area to include it. Any proposed zoned areas for rural residential should avoid any significant overland flow paths shown on Council's Localised Flood Hazard Modelling for the 0.5% Annual Exceedance Probability event.

Gressons Road

Water supply - The area is not connected to a reticulated water supply, with water currently sourced from individual bores. However, if there was sufficient growth to require it and make it viable, the area could connect to either the

Pegasus or Waikuku schemes which have capacity for the 50 to 100 hypothetical lots. Refer to Table 1 for costs associated with connecting to the reticulated network.

Wastewater – The area is not currently connected to a reticulated wastewater network so wastewater disposal is via individual septic tanks and disposal fields. However, if there was sufficient growth to require it and make it viable, the area could connect to the Eastern District Sewer Scheme, which has capacity for the 50 to 100 hypothetical lots (via either the Pegasus or Waikuku reticulated wastewater networks). Refer

to Table 1 for costs associated with connecting to the reticulated network.

Drainage and flood hazard – The area is within a rated drainage area. The area is subject to some medium to high flood hazard to the north and north-west of the existing Residential 4B area. It should be noted the area could also be subject to coastal influences on groundwater associated with sea level rise. Any new development should avoid any significant overland flow paths shown on Council's Localised Flood Hazard Modelling for the 0.5% Annual Exceedance Probability event.

Table 1: Anticipated Development Contributions and other additional servicing costs per lot based on a hypothetical 100 lot rural residential development

Note: Development Contributions provided are based on the 2018/2019 Development Contributions which are subject to change as part of the 2019/2020 Annual Plan, which is currently being finalised and includes updated 2019/2020 Development Contributions.

Table 1

Area	Water Development Contributions per lot	Water additional costs per lot	Wastewater Development Contributions per lot	Wastewater additional costs per lot	TOTAL
Swannanoa	\$2,852	N/A	\$18,598	\$16,000 for onsite reticulation, pump and chamber	\$37,450
Ashley / Loburn	\$3,970	N/A	\$5,434	\$16,000 for onsite reticulation, pump and chamber \$8,000 for wastewater network connection works	\$33,404
Oxford	\$13,390	N/A	\$2,054	\$16,000 for onsite reticulation, pump and chamber	\$31,444
Waikuku	\$4,136	\$15,000 for water network connection works	\$5,434	\$15,000 for wastewater network connection works \$16,000 for onsite reticulation, pump and chamber	\$55,570





215 High Street
Private Bag 1005
Rangiora 7440, New Zealand
Phone 0800 965 468
waimakairiri.govt.nz

190510066945