

# **Private Plan Change to the Upper Hutt Operative District Plan Riverside Farm**

## **Application, Section 32 Evaluation and Assessment of Effects on the Environment**

6 August 2020



The Wallaceville Church was Built in 1893 From Timber Milled from two Logs Sourced from  
Riverside Farm

Prepared for Phil and Coral Kidd

By: Ian Stewart

Consultant Planner

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<b>Attachment 1</b>	<b>Certificate of Title</b>
<b>Attachment 2</b>	<b>Operative District Planning Map</b>
<b>Attachment 3</b>	<b>Summary of Decision on Café Consent</b>
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<b>Attachment 5</b>	<b>Proposed Structure Plan</b>
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## 1. Executive Summary

This report has been prepared to support a private plan change request to re-zone part of the 77.78ha site in Mangaroa Valley (identified on the Upper Hutt City Council Property GIS as Number 52 Mangaroa Valley Rd) which is currently partly zoned Rural Hill and partly Rural Valley Floor (RVF). This area (known as Riverside Farm) will be subject to a Structure Plan that enables a mixed density rural development on the subject site with the RVF as an underlying zone.

The subject site is located close to the junction of the Mangaroa Valley Road and Whitemans Valley Road. It is approximately 78ha in area and is currently (mostly) planted in pasture. The site is a mixture of flat and rolling land with moderate hills and ridges facing due north. The current zoning has the potential to provide up to 5 rural valley floor sections and 2 rural hill sections, giving a total of 7 sections. However, the site is bounded to the north and south by land that has been developed in accordance with the Rural Valley Floor zone, providing smaller 4ha lots. Mangaroa Valley Road forms part of the Northern boundary of the site while the Southern boundary is within a backdrop of the undulating hills.

The Community vision for this area is expressed in the Upper Hutt Land Use Strategy (2016–2043) as follows:

*“Research undertaken to compile the Rural Foundation Report revealed that there is a higher turnover of lifestyle lots of greater than 1 hectare. However, there is sustained demand for lifestyle blocks of around 1 hectare, indicating potential in this area. Housing development in rural areas has the potential to meet increasing market demand for more lifestyle properties. Any increase in housing in the rural area would need to be carefully managed to ensure the values that attract people to those locations are retained”.*

The site is well located to contribute to the vibrancy of the Mangaroa Valley area and offers an opportunity to provide a carefully planned development that maintains open character rural development, enhances a variety of rural residential choices, and retains sizable areas of open green space. This evaluation identifies four options for addressing the resource management issues and concludes that creating a structure plan for the site to enable a range of development is the most efficient and effective option.

The structure plan uses an underlying Rural Valley Floor zone within the District Plan to enable a range of lot sizes, providing predominantly for rural activity with provision for some smaller rural residential properties. The structure plan provides for a mixture of rural block sizes without compromising the retention of a low-density rural character. The proposal is based on a detailed landscape plan aimed at providing sites that are not visually intrusive and provide for open space areas that will still define the underlying rural zone and allow for the continuation of agricultural land use in the more suitable areas.

This evaluation meets the requirements of Section 32 of the Resource Management Act (RMA). It includes an assessment against relevant statutory documents including Part 2 of the RMA, the National Policy Statement on Urban Development Capacity, the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health, the Greater Wellington Regional Policy Statement, the Regional Soil Plan for the Wellington Region and the Greater Wellington Proposed Resource Management Plan. It also includes a detailed assessment of the relevant objectives and policies of the Upper Hutt Operative District Plan, Plan Change 42 and other relevant strategic documents.

A detailed analysis of the proposed provisions has been undertaken and concludes that the proposed Plan Change and resultant Structure Plan represents an efficient use of the rural land resource on the subject site. A mixture of different lot sizes provides for a variety of rural residential opportunities while retaining open space, the productive capacity of the flatter portions of the site, the indigenous forests and scenic values on the rolling hills. The proposed changes are appropriate and in accord with the objectives and policies of the Operative Upper Hutt District Plan.

## **2. Introduction**

### **2.1 Purpose of Report**

The purpose of this report is to support the privately requested plan change titled “Riverside Farm Structure Plan” that enables the comprehensive development of the subject site located in the Mangaroa Valley in Upper Hutt.

This report is prepared in accordance with the First Schedule of the Resource Management Act (RMA). The First Schedule of the Act sets out the procedure for changes to a District Plan. Part 2 of that Schedule (clauses 21 – 29) outlines the process for a privately requested plan change. This request is made in accordance



### 2.3 Purpose of the Plan Change

The purpose of this Plan Change is to enable a more flexible, efficient and appropriate use of the site, by providing a range of lots from rural residential to rural sites, while retaining the land use rules and standards for the Rural Valley Floor sub zone. Visually the site will have all the associated characteristics of a typical valley floor rural site of that section of Upper Hutt. The proposed structure plan allows for a range of lot sizes but retains visual consistency with the Rural Valley Floor subzone from public viewpoints. Careful placement of building sites in the hill areas ensures that the established buildings are not visually intrusive. Larger sites on the flat area at the front of the subject site will ensure the potential for continued agricultural use.

The proposed Structure Plan is included as **Attachment 1** to this report. The Structure Plan consists of two stages:

Stage 1 identifies 14 sites in the lower part of the plan change area where the landscape values are less sensitive and lot boundaries are identified. Subdivision of these lots can generally occur as a controlled activity.

Stage 2 involves land which has more landscape sensitivity and more care needs to be taken in lot design, access and identifying building platforms. The structure plan identifies two landscape areas and provides indicative lot boundaries and the number of sites (16) which can be provided as part of Stage 2 of the proposed Structure Plan. Subdivision consents to implement the Structure Plan will be used to address the required detailed design for the two landscape areas. A requirement for consent for buildings in these landscape areas provides for appropriate control of site development.

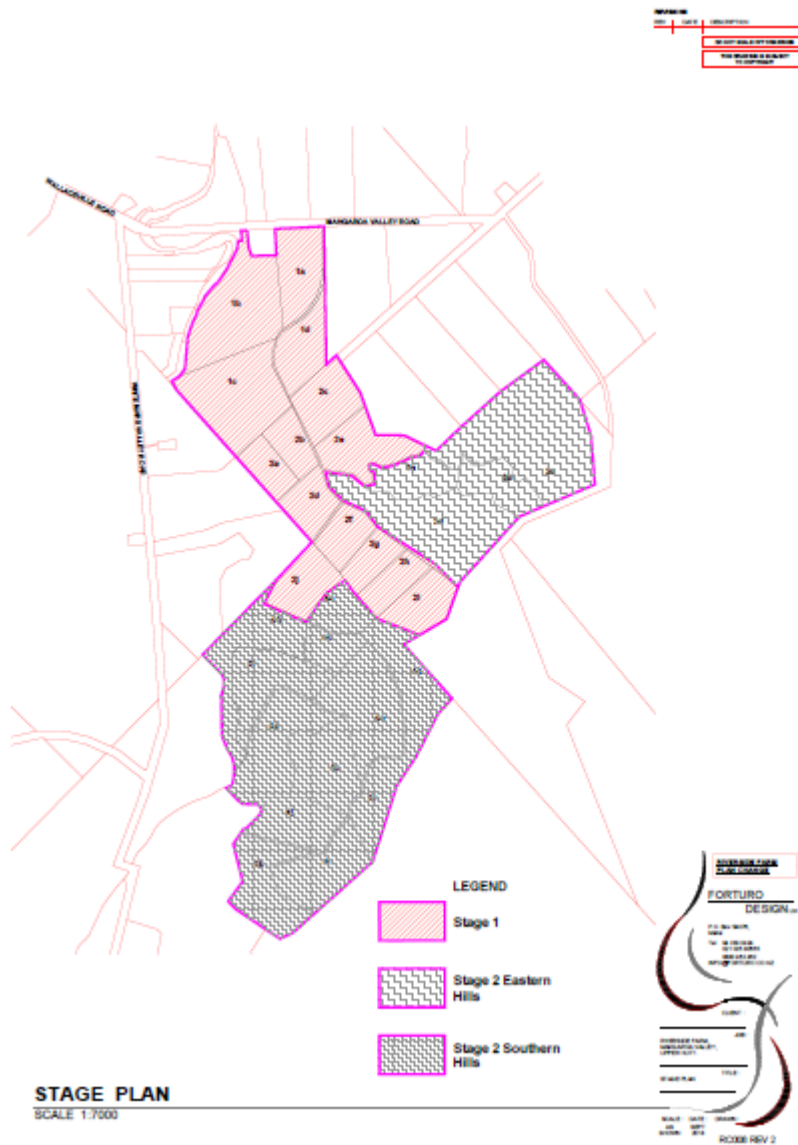


Figure 2-Stage Plan

The proposed Plan Change provides for a mix of uses for the subject site, and enables efficient development of the rural land resource in a manner that reflects the site’s landscape, conservation and amenity values, its current uses, and its proximity to Upper Hutt City centre.

### 3. Location and Existing Environment

#### 3.1 Location

The site is located within the south-eastern half of the Mangaroa Valley area. The Mangaroa Valley consists of a collection of small and large scale rural properties approximately 10 minutes’ drive from the Upper Hutt City Centre and adjoins the Whiteman’s Valley Area.

Mangaroa is named from the Māori words 'manga' meaning 'stream' and 'roa' meaning 'long'. Mangaroa is bounded by the railway line, the locality of Te Marua and State Highway 2 in the north, the South Wairarapa District Council area in the east, Lower Hutt City in the south, and the localities of Pinehaven, Trentham South, Maidstone, Clouston Park and Maoribank in the west.

European settlement of the area dates from the mid-1800s, with land used mainly for sheep and dairy farming, and some logging. A military camp was established at Maymorn during World War 1. Some growth took place from the post-war years into the 1950s. The population increased between 1996 and 2013 as new dwellings were added to the area. The applicant's family was the first European family to farm in the valley and have continuously occupied this area since 1868.

Mangaroa is identified as a rural area, however, the valley has been changing in character and the last dairy farm closed approximately five years ago. The subject site was also a dairy farm but ceased operating in 2005. The Mangaroa Valley has been progressively subdivided over the past thirty years. There are very few large blocks of land available in the valley, which are suitable for a comprehensive development such as this.

Major features of the area include Reuptake Forest Park, Pakuratahi Forest, Kartsport Wellington Raceway, the Remutaka Rail Tunnel and a school. The 2013 population for Mangaroa was 1,695, with a population density of 0.11 persons per hectare.

The plan change area comprises approximately 78 ha of land. It is bounded to the north and south by land that has been developed in accordance with standards of the Rural Valley zone, but with a considerable number of smaller lots having been established. The Whiteman's Valley Road forms part of the western boundary of the site while the eastern and southeastern boundary is within a backdrop of rolling but accessible hills.

### **3.2 Land owners and legal description**

The site is currently owned by Phil and Coral Kidd and is legally described as Lot 2 DP 369137, Lot 1 DP312502 and Part Lot 2 DP58877 held in Certificate of Title 684261. The property is 78 hectares in area and is mostly under pasture, with limited areas of indigenous forest and plantation forestry. A copy of the relevant title is included as **Attachment 2** to this report.

### **3.3 Operative District Plan Zoning**



The subject site is currently zoned Rural Valley Floor (approximately 20Ha) with the balance zoned Rural Hill (approximately 58Ha) (Maps 25 & 26) in the Operative District Plan. The Rural Valley Floor Zone provides for a rural form of development, with a minimum (controlled activity) lot size of 4 ha. The Rural Hill zone requires larger lot sizes of 20 ha. **Attachment 3** to this report shows the current zoning.

### **3.4 Receiving Environment**

The plan change area is currently in pasture, with some areas in native forest and others in plantation forestry. The plantation forestry areas are of harvesting age and some parts are currently being harvested. Harvesting will mostly be harvested within the next five years. In 2017 resource consent (#1610131) was granted with consent conditions to establish a Café at the site with ability to hold private functions. These authorized activities therefore form part of the receiving environment. A summary of the decision on this resource consent is included as **Attachment 4** to this report.

A legal but unformed road passes through the site and terminates at the southeastern property boundary. There is realistically no public purpose served by this road and it is not realistically formable. The proposed plan change does not change the status of the road. The applicant may support a Council proposal to close the road, but this is not a resource management process, and does not form part of the plan change.

### **3.5 Baseline of Anticipated Development**

The plan change area is currently zoned Rural Valley Floor and Rural Hill under the operative Upper Hutt District Plan. The Rural Valley Floor Zone anticipates subdivision to a minimum lot size of 4ha with a right to build a residential dwelling on each resultant lot. The rural hill zone anticipates a minimum lot size of 20ha with a right to build a dwelling on each of the resultant lots. Pursuant to the current zoning, the subject site has the potential to provide up to 5 rural valley floor sites and 2 rural hill sites, giving a total of 7 sections

If the plan change is approved to convert the rest of the site to a Rural Valley Floor zone, the site will have the capacity to yield 19 sections each with a minimum lot size of 4ha. The anticipated baseline under the RVF zoning would be up to 19 lots with a potential for 19 dwellings, one on each site.

This density of development was used as a baseline for anticipated development of the subject property. A detailed landscape assessment was then undertaken to

identify a development pattern which would provide a visual density of development that was consistent with that baseline. This assessment identified that the site was capable of containing up to 30 dwellings, without compromising the landscape quality. In order to achieve this outcome an indicative subdivision plan was developed identifying lot boundaries and building platforms.

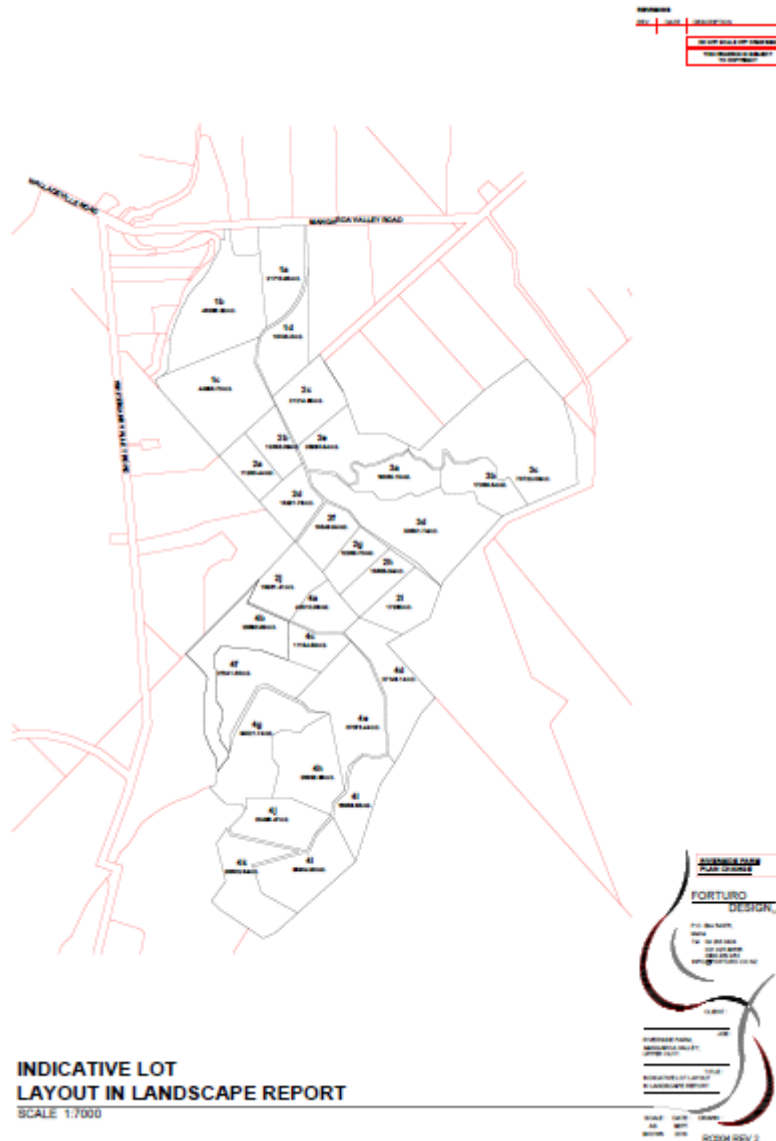


Figure 3 -Sites Identified in Landscape Assessment

A more detailed analysis of this plan confirmed that the development would be best undertaken in two stages.

In Stage 1; the contiguous area of flatter land towards the front of the site would be developed using the indicative boundaries to determine lot proposed lot sizes. In this stage defining building platforms was not considered necessary as appropriate control of development on the lots could be achieved through using the Rural Valley Floor rules and standards. Four sites have been identified in this stage.

Stage 2; the hill areas identified in the landscape assessment as the East and South Landscape areas will be developed. More detailed consideration is needed to ensure that the landscape values of these areas are retained. This requires consideration of the access routes, lot boundaries and defined building platforms for each lot. Protection of area's native vegetation is also an essential part of Stage 2.

In both Stage 1 and Stage 2 it is proposed to place controls on land use which are more restrictive than in either of the current zones.

## 4. Explanation

### 4.1 Section 32 of the RMA

Any change to a plan needs to be evaluated in accordance with section 32 of the Resource Management 1991 (the **Act**). Section 32 states:

*“32 Requirements for preparing and publishing evaluation reports*

- (1) An evaluation report required under this Act must—*
  - (a) examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act; and*
  - (b) examine whether the provisions in the proposal are the most appropriate way to achieve the objectives by—*
    - (i) identifying other reasonably practicable options for achieving the objectives; and*
    - (ii) assessing the efficiency and effectiveness of the provisions in achieving the objectives; and*
    - (iii) summarising the reasons for deciding on the provisions; and*
  - (c) contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal.*
- (2) An assessment under subsection (1)(b)(ii) must—*
  - (a) identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions,*

- including the opportunities for—*
- (i) economic growth that are anticipated to be provided or reduced;  
and*
  - (ii) employment that are anticipated to be provided or reduced; and*
- (b) if practicable, quantify the benefits and costs referred to in paragraph (a); and*
  - (c) assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.*
- (3) If the proposal (an amending proposal) will amend a standard, statement, regulation, plan, or change that is already proposed or that already exists (an existing proposal), the examination under subsection (1)(b) must relate to—*
- (a) the provisions and objectives of the amending proposal; and*
  - (b) the objectives of the existing proposal to the extent that those objectives—*
    - (i) are relevant to the objectives of the amending proposal; and*
    - (ii) would remain if the amending proposal were to take effect ...”*

The following evaluation meets the requirements of Section 32 of the RMA by first identifying the resource management issues that the Plan Change seeks to address. Upon identifying the issues, the broad options available to address the issues are assessed in terms of their costs and benefits, efficiency, appropriateness and risk. This assessment enables the identification of the purpose of the Plan Change, which pursuant to Clause 1(a) is deemed the objective of the plan change.

The evaluation then assesses the Plan Change objective in terms of relevant statutory documents. A detailed evaluation of the methods proposed to achieve the purpose of the Plan Change, and the operative objectives and policies of the Upper Hutt District Plan. That evaluation provides a detailed assessment of the costs and benefits, efficiency and appropriateness of the proposed changes. It therefore meets the requirements of Section 32(2) of the RMA.

## 5. Resource Management Issues

### 5.1 Introduction

The purpose of requested Plan Change is to provide a more intensive subdivision and development of part of the site to meet the social, cultural and economic needs of current and future residents of the valley while protecting the natural and physical resources of the site.

In order to undertake the evaluation required by section 32 of the Resource Management Act 1991 (“the Act”) (in which the focus is on the objectives, policies, rules or other methods of the plan change) it is necessary first to understand the context of the plan change – the resource management issues that it seeks to address.

In determining the resource management issues for the wider area, assistance is provided by reference to the Upper Hutt Long Term Plan (2018-2028), which identifies on page 62 the following key issue:

*“balancing the demand for rural lifestyle developments ...and protecting significant landscape features”*

Page 9 of the Upper Hutt City Council Land Use Strategy 2018-2043 (LUS) identifies within its community and housing goals:

*Responding to high demand for semi-rural lifestyle housing, we also plan to look at how we might provide more of this type of opportunity in the rural area.*

Page 31 of the Land Use Strategy (LUS) states:

*There is a relatively small area of high class soils (Class I to III), and the total area of land being used for primary production is decreasing as farms are subdivided and sold. Neither of these things preclude productive rural use, but are contributing to a trend of decline in traditional larger-scale rural activities that is likely to continue.*

*Over the past ten years there has been a strong trend of people moving to rural Upper Hutt for rural lifestyle opportunities, notably the Mangaroa, Akatarawa and Whitemans Valley areas which have experienced significant residential development. Real estate sales data also indicates continued demand for land parcels of approximately 1 hectare in size.*

*From these trends we can assume that as primary production declines in the rural area, there will be a rise in both smaller scale business enterprises and rural residents who are employed elsewhere, either within Upper Hutt or within the wider Wellington region.*

The LUS continues on page 51 to state:

*Options need to be investigated and identified to ensure that the rural characteristics that are valued by the community are maintained in the future, including the provision of more lifestyle properties to meet the market demand. These options will need to consider the natural limitations that exist (soil classes, natural hazards etc.) and also account for the impacts from future development.*

The site offers an opportunity to respond better to the issues expressed in the Long-Term Plan and LUS. The Structure Plan provides a way to provide for a range of rural block sizes which:

- Provide a development pattern based on protecting landscape values.
- Provide active protection for areas with conservation values.
- Retains the higher quality (Class iii) land in larger blocks.
- Cater for the demand for smaller rural blocks
- Respect the natural features and capability of the land.
- Protects the rural characteristics valued by the community.

The resource management issues for Mangaroa Valley are also expressed in the Upper Hutt Operative District Plan. In Section 5.1, when discussing the rural zone the Plan states:

*“The rural sector is in transition as a diverse range of rural and rural lifestyle activities gradually replace traditional farming activities. A balanced approach is needed to sustainably manage the resources of this part of the City. The rural area contains much of the City’s agriculture and primary productive land resources, which are an important part of the City’s economic and social wellbeing, both now and in the future. It also forms the immediate backdrop to the City in terms of landscape. Areas for rural lifestyle, passive and active recreation and leisure opportunities, and other mixed urban/rural activities also form part of the character of this environment.”*

Section 5.2 identifies the following significant issues that apply to all rural areas and settlements:

*“The loss of rural character, the destruction of significant areas of indigenous vegetation and areas of significant habitat for fauna, the degradation of amenity values from development and activities and competing expectations of, and demands for, rural resources.*

*The loss of the life supporting capacity of soil through inappropriate development and unsustainable land use practices”.*

It is noted that the Current Operative Plan was proposed approximately 20 years ago and has been operative for fifteen years. Over that time the issues, objectives and policies for the rural zone have remained essentially unaltered. In the meantime, the transition addressed above has continued with the character of the valley being significantly changed over that time.

While Council has signaled an intent to review the rural (and other) chapters of the plan it has not yet advanced the review to the stage where it can be taken into account by this plan change.

The proposed Structure Plan endeavors to work with the current character of the area, and the scheme of the plan by focusing more lifestyle style development on the less versatile, but still gently sloping land in the centre of the block.

This will ensure that the life supporting capacity of the soil is maintained as the versatile land closer to the road will be generally kept in larger sites to retain the potential for agricultural production.

The more moderate sloping land in the east and south landscape areas will also be kept in larger sites, with careful placement of building platforms to maintain the visual character. This along with development controls, will ensure that the amenity values of the area are not diminished. The conservation values of the area will be protected through protective covenants on the areas of indigenous vegetation on the site.

## **5.2 Consideration of options to address the issues**

Four broad options have been considered to address these resource management issues. The following tables assess the benefits, costs, efficiency and effectiveness of each option, and the risks of acting or not acting in each situation. By employing the same assessment criteria to consider the broad options, it can be ensured that

the context of the plan change, and the plan change itself, are assessed in a consistent, transparent and comprehensive fashion. It is assumed in considering these options that the site will be developed, rather than retained as a single property.

At Council’s request the option of rezoning some or all of the site to Rural Lifestyle Subzoning was also considered. This option was discarded at the preliminary analysis of options as the policy basis for protecting rural character landscape values, open space and conservation areas is very weak.

Rezoning the whole area as Rural Lifestyle could lead to a density and pattern of development which was not supported by the landscape assessment. Even if the initial subdivision was undertaken in a way that was sympathetic with the landscape assessment, the plan would not provide protection against unsympathetic re-subdivision.

A Rural Lifestyle Zone could potentially be applied to the area identified as the upper valley landscape unit. However a separate zoning of this part of the application area does not achieve any purpose and which the proposed structure plan already achieves.

For this reason rezoning to the Rural Landscape subzone was discarded from the formal assessment of options

<b>Option 1: Status Quo – Maintain current dual zoning and rely on resource consent processes (based on minimum lot size standards) to determine the most efficient and effective use of the land</b>	
Benefits	<ul style="list-style-type: none"> <li>○ Retains large lot size and the anticipated amenity values, continuing the existing pattern of development.</li> <li>○ Uses existing farm tracks for access and infrastructure has been designed to accommodate development anticipated by the existing zone</li> <li>○ Retains larger areas of coherent landscape uninterrupted by boundary fences and buildings</li> </ul>
Costs	<ul style="list-style-type: none"> <li>○ Underlying zoning provides for large lot development, and therefore provides for five 4ha lots and two 20ha lots.</li> <li>○ Lack of ability to place controls on location of development to protect visual and conservation values.</li> <li>○ This is an inefficient use of land, and such inefficient use could result in development pressure being transferred to surrounding land located within the rural areas.</li> </ul>



	<ul style="list-style-type: none"> <li>○ It provides for large-lot residential development but is not the most efficient use of the land resource given its proximity to the Upper Hutt Urban area and Wellington city.</li> <li>○ It doesn't meet the need for smaller lot sizes as identified by research in the Community Vision of the Upper Hutt Land Use Strategy, leading to a risk of higher turnover of the sections with flow-on effects on community cohesiveness.</li> <li>○ Larger lot sizes of 20ha on hillsides with both native bush and forestry are unsuitable to both meet economic/farming needs (too small) and residential/lifestyle needs (too large).</li> </ul>
Efficiency	<ul style="list-style-type: none"> <li>○ An inefficient use of the land resource that is in close proximity to the town centre and located between existing areas of development (the site is bounded to the north and south by small lots 4ha and less).</li> <li>○ An increased level of development would help to fund road network improvements, which could help achieve better connection between the existing town centre and the rest of the rural land of Mangaroa and Whitemans Valley.</li> <li>○ The current area of land, which is zoned as Rural Hill, is not typical of the Rural Hill Zoning in the locality and is more similar to land, which is zoned Rural Valley Floor. The current zoning promotes inefficient use of the land.</li> </ul>
Effectiveness	<ul style="list-style-type: none"> <li>○ Ineffective method of resolving the resource management issues.</li> <li>○ Given the demand for lifestyle developments within the Rural areas of Upper Hutt, this option will be costly for any subdivision for lots smaller than the 4 hectares to take place as they will be deemed discretionary activities</li> </ul>
<b>Option 2: Re-zone the Rural Hill Zone into Rural Valley Floor so that the whole site becomes Rural Valley Floor, and rely on current plan provisions.</b>	
Benefits	<ul style="list-style-type: none"> <li>○ Enables increased density of development from the 7 sections anticipated as controlled activities in option 1 to 18 sections each with a minimum lot size of 4ha.</li> <li>○ Increased density creates economies of scale, and potential to improve services and connectivity.</li> <li>○ It would be easier to get subdivision consents as long as the</li> </ul>

	<p>lots are 4ha or over and meet other district plan requirements for subdivision.</p> <ul style="list-style-type: none"> <li>○ Would bring uniformity to the area, as sections to the north and south of the subject site with similar characteristics are zoned rural valley floor. This would provide for consistent identification of land with similar characteristics within a zone.</li> <li>○ yields more lots than option one through controlled activity subdivision.</li> <li>○ Would reduce the cost of subdivision, as such applications would be considered as controlled activities, which are non-notified if subdivision conditions are met.</li> </ul>
Costs	<ul style="list-style-type: none"> <li>○ Does not respond well to the specific characteristics of the site and its context, including landscape values, conservation values and amenity values of surrounding sites.</li> <li>○ Lack of ability to place controls on location of development to protect visual and conservation values.</li> <li>○ Will tend to provide for a “checkerboard” development pattern.</li> <li>○ Would result in similar sized lots regardless of land characteristics and therefore would result in an increased density on parts of the site with horticultural potential,.</li> <li>○ There will be costs associated with road network and service improvements required to accommodate increased intensity of development.</li> </ul>
Efficiency	<ul style="list-style-type: none"> <li>○ A more efficient use of existing rural land resource than Option One as it increases the possible number of lots and hence responds to the demand for rural lots.</li> <li>○ Inefficient use of land as only rural residential pattern is encouraged and fails to provide a mixed-use environment.</li> </ul>
Effectiveness	<ul style="list-style-type: none"> <li>○ Effective to the extent that it responds to growth pressures by providing increased residential density.</li> <li>○ Ineffective in responding to the site and its context or providing for a variety uses and densities.</li> </ul>
Risk of acting (or not acting)	<ul style="list-style-type: none"> <li>○ Risk of Acting: The rezoning may result in development that is poorly controlled in terms of the site characteristics.</li> <li>○ Risk of Not Acting: Not acting is retention of status quo; and</li> </ul>

	results inefficient realisation of site potential
<b>Option 3: Re-zone the site to wholly Rural Valley Floor and identify lot boundaries that allows the development of 18 sites with a minimum of 1ha (in suitable areas) but with an average of 4ha over the site.</b>	
Benefits	<ul style="list-style-type: none"> <li>○ Enables increased density in less sensitive areas while retaining the expected rural amenity values.</li> <li>○ Allows for a variety of lot sizes while maintaining amenity values.</li> <li>○ Retains larger lot sizes in areas with landscape and ecological values and retains the potential for more versatile land to be used for production purposes.</li> <li>○ Increased density creates economies of scale, relative to option two providing potential to improve services and connectivity.</li> <li>○ Overall density consistent with zoning of adjacent land with similar topography and vegetation cover.</li> </ul>
Costs	<ul style="list-style-type: none"> <li>○ The implementation of a structure plan requires consenting and monitoring costs to achieve the anticipated amenity values of this rural site.</li> <li>○ Does not provide specific controls for protecting landscape and conservation values beyond those currently in the plan.</li> <li>○ Will take a reasonable time to respond to the specific characteristics of the site and its context, including landscape values and amenity values of surrounding sites.</li> <li>○ Would enable smaller than expected sites within the area and may result in sub areas with density not characteristic of the underlying rural zones.</li> <li>○ There will be costs associated with road network and service improvements required to accommodate increased intensity of development.</li> </ul>
Efficiency	<ul style="list-style-type: none"> <li>○ More efficient use of existing rural land resource than Option 1 as it allows for more sites to be developed.</li> <li>○ More efficient use than Option 2 as it allows for development which is more responsive to site characteristics.</li> <li>○ More efficient than Options One and Two in that it provides</li> </ul>

	for a better range of rural living opportunities.
Effectiveness	<ul style="list-style-type: none"> <li>○ Could be generally effective in that it responds not only to growth pressures but also provides for the expected rural range of uses and densities</li> <li>○ Provides for increased density of site development, while at the same time effective in responding to the site and its context.</li> </ul>
Risk of acting (or not acting)	<ul style="list-style-type: none"> <li>○ Risk of Acting: Implementing the option will foreclose the option to achieve the benefits of Option Four.</li> <li>○ Risk of Not Acting: Not acting is retention of status quo; and may result in development that is ad hoc, and not responsive to land characteristics.</li> </ul>
<p><b>Option 4: Create a staged development structure plan based on a landscape assessment. This plan that allows the development of 30 lots with a minimum of 1ha. In stage one lot boundaries are defined for the front (flat and gently sloping) part of the site. In stage two, the total number of lots are defined for each of east and south hill areas and a requirement for a rigorous consent process to define building platforms, lot boundaries and access.</b></p>	
Benefits	<ul style="list-style-type: none"> <li>○ Responds very well to the specific characteristics of the site and its context, including landscape values, conservation values and amenity values of surrounding sites.</li> <li>○ Enables appropriate controls to maintain conservation, landscape and amenity values.</li> <li>○ Allows for a variety of lot sizes and a higher density of development than in the other options.</li> <li>○ Generally larger lot sizes in areas of versatile land retains the potential for agricultural production.</li> <li>○ Staged process allows for controls appropriate to the characteristics of the stage areas.</li> <li>○ Increased density creates economies of scale, and potential to improve services and connectivity.</li> </ul>
Costs	<ul style="list-style-type: none"> <li>○ The implementation of a structure plan requires consenting and monitoring costs to achieve the anticipated amenity values of this rural site. The rule structure requires significantly more consents than the other options.</li> </ul>

	<ul style="list-style-type: none"> <li>○ Will take a reasonable time for landscaping and other controls to mitigate the initial effects of site development.</li> <li>○ Will in a higher density of development than anticipated by the existing zoning.</li> <li>○ There will be costs associated with road network and service improvements required to accommodate increased intensity of development.</li> </ul>
Efficiency	<ul style="list-style-type: none"> <li>○ More efficient use of existing rural land resource than Options One, Two and Three as it allows for more sites to be developed.</li> <li>○ More efficient use than Option 2 as it allows for development which is more responsive to site characteristics.</li> <li>○ More efficient than Options One - Three in that it provides for a better range of rural living opportunities.</li> </ul>
Effectiveness	<ul style="list-style-type: none"> <li>○ More effective than the other options in responding to in both growth pressures and providing a range of rural uses and densities</li> <li>○ Providing increased density of site development that is, at the same time effective in responding to the site and its context.</li> </ul>
Risk of acting (or not acting)	<ul style="list-style-type: none"> <li>○ Risk of Acting: Implementing the option will effectively foreclose the option for implementing the proposed review of the rural zone on this site.</li> <li>○ Risk of Not Acting: Not acting is retention of status quo; and may result in development that is ad hoc, and not responsive to land characteristics..</li> </ul>

### 5.3 Appropriateness of Options

**Option 1** is considered inappropriate because it does not give effect to the expectations of the community as expressed through the Upper Hutt Long Term Plan and Land Use Strategy. This option encourages a pattern of existing land uses, and is unlikely to be effective in providing a flexible but sustainable pattern of development.

This option would result in an outcome that continues the existing pattern of development and lacks potential to provide flexibility in terms of lot sizes and housing typologies. It does not respond to the growing demand for a variety of rural land

holdings.

The option does not provide for protection of the landscape and conservation values beyond controls which are already in the plan.

It creates risk of inefficient development and lack of certainty for adjoining sites.

**Option 2** Enables increased density of development from the 7 sites anticipated as controlled activities in Option 1 to 18 sites each with a minimum lot size of 4ha. However, it will result in inefficient use of land as only one development pattern is encouraged, and fails to provide a mixed-use environment. This will result in an inefficient use of the rural resource, as it does not recognise the features of the site which allow for a higher density of development while allowing for the protection of rural character.

**Option 3** Enable increased density (compared with option 1) with some regard to site specific landscape characteristics to maintain amenity values anticipated in rural areas. It allows for a variety of lot sizes and concentrates sites in the less sensitive parts of the plan change area

The option provides controls for protection of the landscape and conservation values by identifying site boundaries, but otherwise relies on the existing plan controls.

Increased density creates economies of scale, and potential to improve services and connectivity. This option responds to housing demand and lot variety.

**Option 4** allows for increased density as compared with options 1, 2 & 3. It is similar to option 3 in terms of focusing density away from the more sensitive areas. It provides for a much higher level of control and protection of amenity, landscape and conservation values through both the subdivision and land use rules.

This provides for a more effective use of the land resource than either of the other three options, while simultaneously providing better protection.

**Conclusion:** Option 4 is the most effective and efficient as it allows for maximum use of the site while protecting conservation, landscape and amenity values. The stronger regulatory control is focused on more sensitive areas, maximizing procedural clarity and efficiency of the consenting process.

**6. Evaluation**

**6.1 Introduction**

Following the identification of issues, the plan change proposes rezoning the part of the plan change area which is currently rural hill, to rural valley Floor and creating a two stage Structure Plan for the subject area. The Plan Change provides for a variety of lot sizes which reflect the topography and landscape character of the subject site within a proposed single underlying Rural Valley Floor zone.

The Structure Plan proposes a denser development pattern with a variety of lot sizes ranging from 1ha to 4.5ha within the gently sloping section of the subject plan change area (Identified as Stage One). In the Stage One area, lot boundaries are defined. Physical constraints on site development are limited in this area and development of the site has a relatively low potential to impact amenity values.

The area identified as Stage one includes a portion of versatile soil (NZSC Class BFT) at the front of the site (identified as Lower Valley in the landscape assessment). This area will generally be kept in larger lots so that the potential for use of versatile land for production purposes is retained.

Smaller lot sizes will be concentrated in the upper valley landscape unit where distance from the road and topographical screening will reduce the appearance of density from public and neighbouring viewpoints. The moderate slopes (identified as Stage 2) include the Southern and Eastern Hill Landscape Areas. These will be managed by defining a maximum number of lots in each of the two areas.

Subdivision of Stage 2 is controlled by rules and requiring detailed analysis including identifying access, building platforms, and provision for avoiding adverse effects on landscape and conservation values. Site development also generally requires resource consent which is focused on avoiding and mitigating the effects of site development on landscape and conservation values.

The proposed Structure Plan is provided as **Attachment 1** to this report. The Structure Plan is summarized as follows:

<b>Zone</b>	<b>Landscape Unit</b>	<b>Area (ha)</b>	<b># Lots</b>	<b>Character</b>
	<b>Stage One</b>			Lots boundaries are defined by Structure plan

RVF	Lower Valley	13.5	4	Open flat productive land to be generally kept in larger blocks (to retain the potential for use of versatile land.
RVF	Upper Valley	16	10	Area of gently sloping land behind the alluvial flats where smaller lots will be located with a minimum lot size of 1Ha. Includes 1 Conservation Area
	Stage 1 Total			
	<b>Stage 2</b>			Lot Numbers are defined by the Structure Plan
RVF	Eastern Hill	16.5	4	Includes 3 conservation areas.
RVF	Southern Hill	29	12	Includes 2 Conservation areas. Currently approximately half of this area is in pine forest.
	Tracks and roading	3		
TOTAL		78ha	30	

The proposed layout is shown in Figure 2.

The purpose of the Plan Change and associated Structure Plan request is therefore to result in a well-designed rural development that respects both the existing character of Mangaroa Valley, the topography, vegetation, and character of the plan change site.

The plan change includes one additional policy in the rural chapter.

The proposed Structure Plan uses existing zone objectives and policies within the District Plan. It however uses a different set of structure plan specific rules to achieve these objectives and policies while allowing for a denser development of the Plan Change area.

The specific detail of the Plan Change (which includes introduction of a new chapter and site specific amendments to Chapter 5-Rural Zone, Section 19-Rural Zone rules and Planning Maps- 25 &26 is outlined in **Attachment 5** to this report.

The relationship between the existing objectives, the existing policies, the new policy, and policies and the structure plan rules is detailed in **Attachment 12**.



Apart from the new policy, the structure plan and changes to the underlying zoning on the District Plan maps, no other section of the Operative Upper Hutt District Plan is affected by the Plan Change.

The proposed Structure Plan allows for a denser subdivision pattern than mandated by the underlying zoning, but ensures the subject site is managed comprehensively and in an integrated manner, to reflect the characteristic and values of the site. A particular feature of the proposed plan is the protection of stream edges and areas of indigenous vegetation through covenants. The identified conservation areas totaling 10ha will be covenanted to provide for fencing and ongoing management of these areas.

## **6.2 Examining the Appropriateness of the Objectives**

Section 32(1)(a) requires that an assessment is undertaken of the objectives of the proposal to evaluate whether they are the most appropriate way to achieve the purpose of the Act.

It is proposed that the existing objectives of the Upper Hutt Operative District Plan are retained without amendment. Therefore, in accordance with Clause 6 of Section 32, this assessment examines “whether the provisions in the proposal are the most appropriate way to achieve the objectives”.

The proposed Structure Plan will result in a variety of lot sizes, with a greater density than provided for by the current zoning, but will be consistent with the current density of the surrounding area. The Structure Plan enables the comprehensive development of the site in a way that is consistent with its landscape character and will contribute to the growth of the Mangaroa Valley.

The alluvial flats in the lower valley will be retained in larger lots to maintain the potential for productive agricultural use. It also allows for the recently consented café to be established. The gently sloping upper valley can allow smaller lots without compromising the character of the wider area, or amenity values. The landscape values of the two hill areas will be protected by carefully selected building platforms, landscaping and other controls.

The following table provides an evaluation of the proposal against the existing objectives of Section 5 and 12 of the Upper Hutt Operative District Plan:

Objective	Evaluation
<p>5.3.1 <i>The maintenance and enhancement of the open spaces, natural features and ecological systems which comprise the rural character and</i></p>	<p>The character of the valley has changed considerably since the plan became operative. This was anticipated by the Plan.</p> <p>The open character is maintained from the viewpoints on Wallaceville Rd, Whiteman's Valley Rd and Mangaroa Valley Rd by:</p> <ul style="list-style-type: none"> <li>• Keeping larger lots at the front of the site to encourage retention of agricultural activities.</li> <li>• Siting smaller lot subdivision in the upper valley which is distant from public viewing areas and where topographical screening will maintain the impression of open space.</li> <li>• Including specific consenting requirements for defined building platforms in the two hill areas.</li> </ul> <p>Natural features and ecological systems are actively protected by their identification and subsequent covenanting.</p> <p>The proposed plan change will better achieve this objective than the current zoning.</p>
<p>5.3.2 <i>The promotion of an environment within which soil, water and land resources are managed sustainably</i></p>	<p>The Mangaroa river will be protected by sustainably managing flood prone areas. The current esplanade reserve achieves this objective. The proposed plan change will not interfere with achieving this objective.</p>
<p>5.3.3 <i>To maintain and enhance the amenity values of the rural area</i></p>	<p>In addition to the measures described for achieving objective 5.3.1. The proposed Structure Plan focuses on maintaining amenity values through:</p> <ul style="list-style-type: none"> <li>• Retaining the road setback provisions for the two lots fronting onto Mangaroa Valley Rd.</li> <li>• Retaining a density approximating the rural valley floor density for the lower valley landscape area of stage 1 of the structure plan.</li> <li>• Locating a higher density of subdivision in the upper valley landscape area of stage 1 in the structure plan, where this development will not be readily visible from</li> </ul>

	<p>public, and most private viewpoints.</p> <ul style="list-style-type: none"> <li>• Providing a comprehensive set of rules for both subdivision and site development in the southern and eastern landscape areas of stage two of the structure plan.</li> </ul> <p>These rules will ensure that the visual amenity and landscape values of the sites will be better protected than under the existing plan provisions.</p>
<p><i>12.3.1 The protection and enhancement of significant indigenous ecosystems and biological diversity.</i></p>	<p>The areas with conservation value:</p> <ul style="list-style-type: none"> <li>• The identification of the areas with conservation value in the Structure Plan.</li> <li>• Avoiding subdivision of each of these areas into individual titles.</li> <li>• Avoiding development or activities in these areas where it could compromise these areas.</li> <li>• Covenants for the maintenance and enhancement of the areas.</li> <li>• Active riparian protection of the streams running through the property. Identifying and using covenants and active management to ensure that indigenous ecosystems are enhanced. The proposed plan change better meets this objective than the current zoning.</li> </ul> <p>These provisions will ensure that the areas with conservation values are better protected than under the current plan provisions.</p>
<p><i>12.3.2 The protection, maintenance or enhancement of essential natural landscape elements that determine Upper Hutt's landscape and geological structure and identity and contribute to the amenity values of the City</i></p>	<p>The Structure Plan is based on the Landscape Assessment which is attached as <b>Attachment 7</b> to this report. The site sits below the main ridgeline with extensive areas of plantation forestry between the plan area and the skyline. The landscape assessment identifies the main landscape elements as:</p> <p><i>Mangaroa Valley basin floor has been predominantly productive dairy and cattle farms. This has created an open pastoral aesthetic with grass fields, visually permeable baton and wire fencing, little original native vegetation, scattered</i></p>

	<p><i>shelter belts and the occasional residential house and large farm building with sparse tree cover predominately around the buildings. Views from the road and residential dwellings are predominately, open and unobstructed, across the pastoral valley landscape up to low lying hills that surround it...</i></p> <p>The assessment notes that the Valley has been in transition from production to lifestyle subdivisions. Current district plan rules provide little protection for these elements. The structure plan will ensure that these landscape elements are maintained through protecting the areas of indigenous vegetation and imposing rules directly aimed at protecting these elements. The landscape assessment attached to this plan has ensured that the proposed plan change will meet this objective better than the current zoning.</p>
<p><i>12.3.3 To manage development within the Southern Hills Overlay Area to protect areas of significant indigenous vegetation, and maintain and enhance high value landscape and/or visual areas</i></p>	<p>The site is not within the southern Hills Overlay Area.</p>

Overall the proposed plan change better meets the above objectives than the existing plan with regards to the particular characteristics of the site, which the plan covers. It is also more consistent with the existing development pattern in the area surrounding the site.

### 6.3 Examining the Appropriateness of the Policies analysis – Assessment of the Costs and Benefits of the provisions

The following table provides an assessment of the proposed provisions against the Policies of Section 5 of the Operative District Plan. Each of the site-specific changes detailed in **Attachment 5** are replicated within the below table (coloured red). It is noted that by using the operative zoning, with only slight amendment, many of the methods are those already operative.

Policy	Proposed Method –	Appropriateness
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	Summary of provisions	
<p>5.4.1 To manage the adverse environmental effects arising from the scale, density, number and location of earthworks, new building developments and activities so that they do not significantly compromise rural character and landscape values:</p>	<p><b>Method: Establish a Structure Plan overlying the proposed Rural Valley Floor zone</b></p> <p>All operative provisions to remain except for the following site-specific amendment:</p> <ol style="list-style-type: none"> <li>1. Insert an exemption following activities table 19.1 as follows: <u>Subdivision Activities in the Riverside Farm Structure Plan area will be managed according to the Rules in Chapter 40. Which results in the creation of any new lot additional to those identified in the Structure Plan.</u></li> <li>2. Insert an exemption following activities table 19.2 as follows: <u>Land Use Activities in the Riverside Farm Structure Plan area will be managed according to the Rules in Chapter 40. Which results in the creation of any new lot additional to those identified in the Structure Plan.</u></li> </ol>	<p>The current operative District Plan Regime regarding buildings, structures and associated earthworks will be maintained to ensure the natural elements which give the rural area its character. While the operative District Plan seeks to limit the number of new buildings and structures by controlling the subdivision of rural land and the intensity of residential activities, the proposed Structure Plan will achieve the same outcome by controlling both the number and location of new dwellings and other buildings based on landscape characteristics.</p>
<p>5.4.2 To ensure that subdivision, development and land use within the Valley Floor and Hill Sub-zones minimise adverse effects on rural character, areas of significant</p>	<p>All operative provisions to remain, <u>however the portion of the property which is zoned Rural Hill is to be changed into Rural Valley Floor. This involves changes to planning maps 25 and 26.</u></p>	<p>The explanation for the policy states: <i>The Valley Floor Sub-zone is characterized by a range of land uses which generally retain the open farmland characteristics.... The Hill Sub-zone comprises</i></p>

<p><i>indigenous flora or fauna, and amenity values</i></p>		<p><i>significant areas of both indigenous and exotic forest which will remain a dynamic environment as varying ages of forest are harvested and planted.</i></p> <p>The portion of the subjects site which is currently zoned as Rural Hill (58ha) is not typical of the zone with only 7.5ha (13%) of the area in exotic forestry (which is due to be harvested) and 9ha (15%) in indigenous forest (which will be better protected as a result of the proposed plan change). The remaining 72% of the area zoned Rural Hill is in open farmland, which is characteristic of the Rural Valley Floor zone. In terms of contour, a significant area of the rural hill zoned area within the subject site is less than 15° in slope (25%) of land area and less than 20% of the area is more than 30° is slope (which is primarily the edges of the spurs. The majority of the land is moderately sloping.</p> <p>This is in stark contrast to the remainder of the Rural Hill zoned land along the eastern side of the Mangaroa valley that is almost entirely under forest cover and with a slope of greater than 30°. Rezoning the site to Rural Valley floor is consistent with both the plan's expectations for the zone and</p>
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		<p>surrounding zoning. District Plan Vegetation Clearance Rules can already achieve protection of the indigenous forest area. Exotic forestry is governed by the same rules under either zoning.</p> <p>It is concluded that changing the zoning of the proportion of land that is currently zoned Rural Hill to Rural Valley Floor is appropriate in terms of the scheme of the plan. As the proposed Structure Plan will drive towards larger lot sizes in the areas identified as Landscape (including both exotic and indigenous forest); the Structure Plan will better achieve the plans objectives than simply zoning the area Rural Valley Floor.</p>
<p><i>5.4.3 To provide for rural lifestyle subdivision which maintains the rural character and amenity values and avoids, remedies, or mitigates the effects of natural hazards</i></p>	<p>All operative provisions to remain</p>	<p>The structure plan maintains the rural character and amenity better than the current zoning. The only relevant natural hazards risk relates to the flood hazard identification on land adjacent to the Mangaroa River. The plan provisions introduced by Plan Change 42 (rules are operative, but subject to appeal) provide adequate protection for these matters.</p>
<p><i>5.4.7 To avoid, remedy or mitigate the adverse effects of activities on soil, water, land and other natural resources.</i></p>	<p>All operative provisions to remain</p>	<p>The development and land use proposed under the Structure Plan will not affect or impair the life-supporting capacity of the rural environment's natural</p>

		resources.
<i>5.4.8 To avoid or mitigate run-off, contamination and erosion of soil from subdivision and land development so as to sustain the life supporting capacity of the soil.</i>	All operative provisions to remain	The choice of building sites and associated land development under the proposed Structure Plan will avoid areas prone to soil erosion and will not have adverse impacts on water quality and on vegetation in the margins of water bodies. The structure plan anticipates a mixed use of lifestyle farming, small scale agricultural use and forestry while protecting indigenous forest.
<i>5.4.11 To limit the potential adverse effects of rural and non-rural activities on each other and on rural amenity values.</i>	All operative provisions to remain	The proposed Structure Plan will allow and encourage rural activities that will be sensitive to the environment of the subject site. No non-rural activities are proposed.
<i>5.4.12 To encourage building design, location and scale that complements the character of the surrounding area</i>	All operative provisions to remain	The Structure Plan promotes design and character of buildings within the subject site by proposing a variety of house typologies and a range of lot sizes.
<u><i>5.4.13 Policy- To allow a variety of lot sizes within the Riverside Farm Structure Plan Area while maintaining amenity values and sustaining the scale and capacity of the productive rural land resource.</i></u>	All operative provisions to remain.	The structure plan will allow for a variety of lot sizes, while retaining the productive capacity of the alluvial flat land; and maintaining amenity values on the rest of the rolling hill portion of the site post development.



Having found that each of the proposed methods are appropriate, and that they achieve the relevant policies of Section 5 of the Plan, the following table addresses each of the proposed methods in more detail in terms of their costs, benefits and efficiency.

<b>Method</b>	<b>Purpose of the change</b>	<b>Appropriateness</b>	<b>Costs</b>	<b>Benefits</b>	<b>Efficiency</b>
Rezone the land within the site currently zoned Rural Hill as Rural Valley Floor.	The proposed underlying zoning provides an even zone across the whole site, which removes any ambiguity in the application of the structure plan.	As addressed above the majority of the land within the site which zoned Rural Hill is more appropriately zoned Rural Valley Floor due to cover, land use and topography.	None	The proposed rezoning would allow an anticipated additional subdivisional potential of 30 lots on the site.	Provides for more efficient use of the rural land resource in a manner that supports the scheme of the plan.
Establish a Structure Plan overlying the proposed Rural Valley Floor zone	The proposed Plan Change enables mixed lot size development within the site where it can be absorbed from a landscape perspective, without changing the new established underlying zone. A variety of lot sizes increases the range living options available and meets the need for smaller lots identified in the Long Term Plan and Land Use Strategy.	The Structure Plan provides a response to the particular features of the site in a way that allows for the protection of the landscape, conservation and amenity features of the site while providing for a range of lot sizes and lifestyle opportunities. It also provides for protection of the versatile land at the front of the site by generally retaining larger lot sizes.	There will be costs associated with proposed landscaping on the residential sites in order to maintain the amenity values of the rural site. It will take a reasonable time to respond to the specific values of the site and its context, including landscape values and amenity of surrounding sites. Would enable smaller sites in the rural	Enable increased density where appropriate landscaping can maintain amenity values. Allows for a variety of housing typologies and lot sizes and maintains amenity values. Focuses development on the gently sloping hill portion of the subject site and retains the potential for productive use of the prime land.	Efficient use of existing rural land resource as less sensitive areas are used for more intensive development while sensitive areas are managed through the subdivision and landuse rules to ensure that values are maintained or enhanced. Responds to growth and enables increased rural residential density with a changed underlying zone.

			residential part of the structure plan area.		Efficient use of land as a variety of housing types are encouraged. Efficient use of consenting process by creating clarity and cohesiveness of development goals.
Insert New Rules as detailed in <b>Attachment 1</b> for Subdivision and Land Use	This will ensure that the intentions of the Structure Plan are secured and any activity beyond the stipulated conditions of the Structure Plan would need to go through a stringent regulatory regime.	Enabling the intent of the Structure Plan, is appropriate to provide for the best use of the site. A stricter regime for subdivision that deviates from the Structure Plan is appropriate given the higher density of development than envisaged for the underlying zone. This will ensure that the Structure Plan achieves the scheme of the Operative District Plan.	There will be associated regulatory costs for developers trying to propose activities not prescribed by the Structure Plan	The subdivision and landuse rules will allow development on the subject site as anticipated by the Structure Plan and the Operative District Plan in general.	The non-complying status is an efficient way of sustaining expected outcomes of the Structure Plan and maintaining the amenity values and productive capacity of the subject site

## **6.4 Method analysis – conclusion**

The evaluation concludes that the proposed amendments are appropriate. The amendments represent a rational and an efficient use of land. They better achieve the relevant objectives than the current zoning and the methods achieve the objectives and policies as modified. The proposed zoning, policies and methods better achieve the objectives by enabling a range of housing and land use typologies while maintaining expected amenity values and providing for the anticipated agricultural production of this Mangaroa Rural Valley subject site.

## **7. Consultation**

### **7.1 Consultation Requirements under the RMA (1991)**

It is acknowledged that this is a privately initiated plan change and as such, there is no obligation for the applicant to undertake any consultation under the RMA.

### **7.2 Other Correspondence**

The proposer has discussed the concept of the proposed plan change with Council Officials and the Mayor.

## **8. Strategic Context**

### **8.1 Statutory Framework**

This Section of the report assesses the proposal against the following sections of the Act and statutory documents.

All matters identified in Part 2 of the Act need to be recognized and provided for in a District Plan. In preparing a change to a District Plan the Council is required to have regard to (and take into account), other matters such as Regional Plans, iwi management plans, heritage items, management plans, and plans of other territorial authorities. These matters are addressed in the sections below.

The District Plan must also give effect to any National Policy Statement and Regional Policy Statement and cannot be inconsistent with any Regional Plan.

The Act enables requests for a private Plan Change under section 73(2) and Schedule 1 (Preparation, Change, and Review of Policy Statements and Plans). Part II of the First Schedule to the Act sets out the process for private Plan Change

requests (clauses 21 – 29). Section 32 requires a consideration of alternatives, benefits, and costs. This is addressed in detail through this evaluation.

Other relevant sections of the Act include section 31 (Functions of Territorial Authorities under this Act), section 72 (Purpose of District Plans), section 74 (Matters to be included in a District Plan), section 75 (Contents of District Plans) and section 76 (District Rules). These sections are relevant to this Plan Change as they relate to the functions of the Local Authority and provide the requirements for the District Plan in order to meet the purpose and principles of the Act.

## **8.2 Resource Management Act - Part 2**

The purpose of the Act is given effect to by the hierarchy of planning instruments. The Operative District Plan objectives achieve relevant higher order planning instruments (including the higher order provisions of the Operative District Plan, and regional and national planning instruments) and hence achieve the purpose of the Act.

The purpose of the Act requires an integrated planning approach and direction:

### **5 Purpose**

- (1) *The purpose of this Act is to promote the sustainable management of natural and physical resources.*
- (2) *In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—*
  - (a) *sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
  - (b) *safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
  - (c) *avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

The remaining provisions in Part 2 of the Act provide a framework within which objectives are required to achieve the purpose of the Act and provisions are required to achieve the relevant objectives.

The proposed Structure Plan on the subject site will enable efficient development of the land. The site is bounded on the north and south by a historically developed mixed range of site sizes. The current areas of Rural Hill zoned land within the subject site is more similar in topography, vegetation cover, landscape values and use to adjacently zoned Rural Valley Floor land. The Structure Plan can best achieve conformity with the existing pattern of development around the subject site.

Maintaining an underlying Rural Valley Floor zone for the subject site represents sustainable management. It manages the natural and physical resources of the site in a way that enables the Mangaroa Valley community to provide for their social, economic and cultural wellbeing, while sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations. The proposed structure planning regime achieves this outcome.

The Structure Plan provides for a range of lot sizes and housing typologies, while respecting the context of the site, retaining open space and rural amenity values on the rest of the site. This approach ensures that potential effects on the environment can be effectively avoided, remedied or mitigated.

**Section 6- Matters of National Importance**

<b>Matter</b>	<b>Assessment</b>
(a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:	The margins of the Mangaroa River and the streams flowing through the place will be enhanced by the proposed riparian protection measures.
(b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:	The plan change site does not include outstanding natural features or landscapes.
(c) the protection of areas of significant indigenous vegetation and significant habitats of	While the areas with conservation value are being protected these do not meet the s6(c) significance

indigenous fauna:	criteria.
(d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:	This has been addressed through the establishment of esplanade reserves as part of prior subdivision.
(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:	There is no known history of Maori occupation or use of the site.
(f) the protection of historic heritage from inappropriate subdivision, use, and development:	No features of historic heritage value are located on the site.
(g) the protection of protected customary rights	Not Applicable
(h) the management of significant risks from natural hazards.	The current district plan provisions apply and provide appropriate protection.

### **Evaluation**

There are no relevant Matters of National Importance. This is primarily because of the location of the site, where it is bound on all sides by rural and rural residential development. Approximately 400m of the Mangaroa River where it runs adjacent to the property are already protected by Esplanade Reserves. A riparian covenant will protect the remaining 100m where the riverbed is inside the boundary. This covenant gives a wider band of riparian protection than could be achieved by an Esplanade reserve. There are no outstanding natural landscapes or features associated with the site.

While the eastern side of the site is well vegetated, the site does not contain any significant indigenous vegetation or significant habitats of indigenous fauna as identified by any national or regional study of significance. Notwithstanding this, the areas of remnant vegetation will be protected by covenants and active management.

The site does not contain any known waahi tapu or other taonga.

### **Section 7 – Other matters**

<b>Matter</b>	<b>Assessment</b>
(a) kaitiakitanga:	No aspect of the plan change interferes with Tangata whenua to continue to act as kaitiaki.
(aa) the ethic of stewardship:	The plan change provides a better opportunity for the Council to ensure appropriate stewardship of the plan change area.
(b) the efficient use and development of natural and physical resources:	The efficiency aspects of the proposed plan change have been addressed above. The proposal provides an efficient use of the physical resource.
(ba) the efficiency of the end use of energy:	Not applicable.
(c) the maintenance and enhancement of amenity values:	The proposal provides for the maintenance and enhancement of amenity values.
(d) intrinsic values of ecosystems:	The proposal better protects the intrinsic values of the indigenous ecosystems, located in the plan change area, than the current plan provisions.
(f) maintenance and enhancement of the quality of the environment:	The proposal better protects the quality of the environment in the plan change area, than the current plan provisions.
(g) any finite characteristics of natural and physical resources:	The proposal makes better use of the land resource within the plan change area than the current plan provisions.
(h) the protection of the habitat of trout and salmon:	Better riparian protection of the



	Mangaroa River and the permanent streams on the property will enhance the habitat of trout.
(i) the effects of climate change:	The engineering report addresses climate change and concludes that the proposal is appropriate with regards to reasonably foreseeable impact from changing climate.
(j) the benefits to be derived from the use and development of renewable energy.	Not applicable.

### Evaluation

Of the nine relevant other matters to the proposed plan change provides a better outcome for the plan change area for six of the matters when compared with the current district plan provisions. For the remaining three it provides an appropriate outcome for the site.

### 8.3 National Direction

<b>National Policy Statements</b>
New Zealand Coastal Policy Statement 2010
Not relevant as the plan change area is not in the coastal Environment
National Policy Statement on Electricity Transmission 2009
This has already been incorporated into the operative district plan, to the extent that it is relevant. No aspects of the plan change have the potential to affect the electricity transmission network.
National Policy Statement for Renewable Electricity Generation 2011
This has already been incorporated into the operative district plan. The plan change does not alter the provisions of Chapter 30A of the District Plan.
National Policy Statement on Urban Development Capacity 2016
This national policy statement is focused on current and future urban environments. The plan change addresses changes to the district plan's treatment of an area of rurally zoned land. There has been no indication in any of the Council's Strategic documents that the plan change area has been considered as future urban land. The proposal for denser "rural residential" style use of the suitable portion of the plan change area, does meet the general

purpose of the statement by providing for further housing options close to the city.
<b>National Policy Statement on Urban Development 2020</b>
This national policy statement directs Councils to change district plans to allow for a denser urban development pattern, particularly in Tier One cities such as Upper Hutt. The Policy Statement is focused on current and future urban environments. The plan change addresses changes to the district plan's treatment of an area of rurally zoned land. There has been no indication in any of the Council's Strategic documents that the plan change area has been considered as future urban land. The proposal for denser "rural residential" style does not conflict with the Policy Statement.
<b>National Policy Statement for Freshwater Management 2017</b>
The Freshwater National Policy Statement does not direct specific provisions to be included within district plans. The proposed plan change does however contribute to achieving the water quality and ecological objectives of the statement, by protection of the riparian area of the Mangaroa River within a conservation area and through riparian fencing and planting of the streams running through the property.
<b>National Environmental Standards</b>
National Environmental Standards (NES) include parallel provisions to District Plans, but the provisions of a district plan should not conflict with provisions of a NES.
<b>National Environmental Standards for Air Quality 2004</b>
No aspect of the proposed plan change, or consequential changes in subdivision, or land use have the potential to raise matters covered by the 14 standards of the NES
<b>National Environmental Standard for Sources of Human Drinking Water 2007</b>
The plan change area does not involve part of a catchment that is a source for human drinking water, within the meaning of the NES. Potable water used for consequential development, will typically be gathered by roof collection of rain water. The riparian protection measures proposed for the Mangaroa River and streams running through the property will reduce the potential for contamination of the lower catchment.
<b>National Environmental Standard for Electricity Transmission Activities 2009</b>
None of the standards in this NES apply to activities within the plan change area.
<b>National Environmental Standard for Assessing and Managing Contaminants in</b>

Soil to Protect Human Health 2011
The subdivision and land use activities which are managed by the rules in this plan change are also activities that are by nature covered by the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011. The plan change area is not identified as an area in which HAIL activities have taken place. The engineering report prepared in support of this plan change has considered the potential for site contamination and has concluded that HAIL activities have not occurred on the plan change area (section 2.5). The proposed plan change therefore does not conflict with the provisions of the NES.
National Environmental Standards for Telecommunications 2016
These standards provide for network operators to undertake necessary activities (mostly on road reserves). The Provisions of this plan change do not conflict with these standards.
National Environmental Standards for Plantation Forestry 2018
These standards have objectives to: maintain or improve the environmental outcomes associated with plantation forestry activities increase the efficiency and certainty of managing plantation forestry activities. The standards would apply to plantation forest activities which occurred within the plan change area. The only potential for conflict are the controls in the plan for protection of the conservation area. However my assessment is that regulation 11 of the NES ensures that the Plan change does not cause conflict.
<b>Proposed National Policy Statements</b>
There are a number of proposed National Policy Statements and while technically these do not need to be considered for a plan change, it is appropriate to address the statements that may have relevance to the plan change and which are sufficiently advanced to consider likely consequences.
Proposed National Policy Statement on Urban Development
Consultation on this statement closed on 10 October 2019, but the results of consultation have not yet been presented to Cabinet. As for the current National Policy Statement, the focus of the proposed statement is to prepare a future urban development strategy and ensure that ample land is available for urban growth. The comments above with regards to the current Urban Development Strategy apply here as well.
Proposed National Policy Statement for Freshwater Management

<p>There are no Policy proposals at the stage where useful comment can be made. However the proposed riparian protection measures addressed above when assessing the current National Policy Statement represent a high level protection and it is highly unlikely that further protective measures would arise through a future statement. If they do there are provisions to review the plan.</p>
<p><b>Proposed National Policy Statement for Indigenous Biodiversity.</b></p>
<p>Consultation on the discussion document closed on 14 March 2020. The COVID-19 pandemic has delayed delivery of the statement until April 2021. The proposed Plan change is consistent with the approach advocated in the discussion paper through:</p> <ul style="list-style-type: none"> <li>• Identifying areas with conservation value.</li> <li>• Providing for protection of these areas through fencing.</li> <li>• Providing for active management of some of these areas</li> <li>• Providing for corridors through riparian protection.</li> <li>• A rule regime that manages adverse effects on these areas.</li> </ul>
<p><b>Proposed National Environmental Standards</b></p>
<p>There are no proposed NES that are sufficiently advanced to be considered. Of those which are currently being pursued only the Proposed National Environmental Standard for Freshwater has the potential to have relevance.</p>
<p><b>Other National Direction</b></p>
<p><b>Proposed Stock Exclusion section 360 Regulations</b></p>
<p>The proposal to fence of Riparian marings of the Mangaroa River and streams fulfills the purpose of these regulations.</p>
<p><b>National Planning Standards 2019.</b></p>
<p>This has been separately reported to Council and is attached as Attachment 10. The Plan Change is written to be consistent with the current Operative Plan drafting but can be readily changed to meet the National Planning Standards when the Plan is changed to this purpose.</p>

## 8.4 Regional Planning Documents

### 8.4.1 Operative Greater Wellington Regional Policy Statement

The purpose of a regional policy statement is to promote the sustainable management of natural and physical resources. The Greater Wellington Operative Regional Policy Statement (RPS) does this by giving an overview of the resource management issues facing the Wellington region, and by setting policies and

methods to manage the Wellington region’s natural and physical resources. The table below states the relevant objectives and policies within the RPS with corresponding comments addressed by this Plan Change application.

<b>3.6 INDIGENOUS ECOSYSTEMS</b>	
<b><i>The description of ecosystems identified as being at threat include six classes of ecosystems none of which are present on the site. The three main ecosystems of potential value are the areas of indigenous vegetation, the small area of the margin of the Mangaroa River – not already protected by esplanade reserves and the small streams running through the site. Currently these areas have no protection from permitted activities and the Structure Plan provides for protection of each of these areas.</i></b>	
<b>Provision</b>	<b>Comment/ Analysis</b>
<i>Policy 23: Identifying indigenous ecosystems and habitats with significant indigenous biodiversity values</i>	The Landscape Assessment attached to this report has identified the areas of indigenous vegetation on the site and has evaluated their biodiversity value. .
<i>Policy 24: Protecting indigenous ecosystems and habitats with significant indigenous biodiversity values – district and regional plans</i>	The structure plan will allow for the protection of the indigenous forest areas by use of protective covenants. Permanently flowing streams edges will be protected by fencing and planting as part of the stage two development.
<i>Policy 47: Managing effects on indigenous ecosystems and habitats with significant indigenous biodiversity values</i>	The structure plan will manage effects on indigenous forest areas by fencing, excluding stock, controls on vegetation removal and location of building platforms.
<b>3.7 LANDSCAPE</b>	
The Policy Statement draws a distinction between outstanding natural landscapes, those that are distinctive widely recognized and valued by the community, and those that contribute more generally to amenity. The plan change site sits in the third category in providing an open space pastoral landscape with patches of indigenous and production forest and being well below the skyline.	
<b>Provision</b>	<b>Comment/ Analysis</b>
<b><i>Objective 17 The region’s outstanding natural features and landscapes are identified and their landscape values protected from inappropriate subdivision, use and development.</i></b>	While the site does not have outstanding landscape values, the plan change provides the opportunity to protect and enhance the landscape values of the site.

<b>Policy 26:</b> Protecting outstanding natural features and landscape values	There are no outstanding natural features on the site. The landscape values of the site also do not meet the standard of outstanding.  The Landscape Assessment provides an evaluation of the landscape values of the site and provide appropriate measures for their protection. These are included in the Structure Plan
<b>Policy 28:</b> <i>Managing special amenity landscape values</i>	The Structure Plan will ensure that the amenity values of landscape are maintained through: <ul style="list-style-type: none"> <li>• Protecting areas of indigenous vegetation</li> <li>• Providing for Riparian Planting</li> <li>• Controlling the position and impact of buildings on more vulnerable sites.</li> <li>• Controlling the position of access ways on more vulnerable sites.</li> </ul>
<b>Policy 50:</b> <i>Managing effects on outstanding natural features and landscapes</i>	The Structure plan does not have any aspect which result in effects on outstanding natural features and landscapes.
<b>3.8 NATURAL HAZARDS</b>	
<b>Provision</b>	<b>Comment/ Analysis</b>
<b>Objective 19</b> <i>The risks and consequences to people, communities, their businesses, property and infrastructure from natural hazards and climate change effects are reduced.</i>	The regional Council has identified that the area has a minor risk of inundation (ponding on the flat land at the front of the site. This has been addressed by Upper Hutt City Council through Plan Change 42. Any development in the structure plan area will be subject to the provisions of this plan change and hence will meet RPS objective 19.
<b>Objective 21</b> <i>Communities are more resilient to natural hazards, including the impacts of climate change, and people are better prepared for the consequences of natural hazard events.</i>	The engineering report attached to the plan change (as <b>Attachment 8</b> ) addresses potential hazards and susceptibility to climate change. The plan change will promote a resilient subdivision.
<b>Policy 29:</b> <i>Avoiding inappropriate subdivision and development in areas at high risk from natural hazards</i>	The structure plan results in a denser subdivision pattern outside areas which have any hazard risk. The current plan provisions provide adequate protection. PC 42 provides

	additional protection from potential inundation.
<b>Policy 51:</b> Minimising the risks and consequences of natural hazards	Policy 51 aims to minimise the risk and consequences of natural hazard events through sound preparation, investigation and planning prior to development. This policy reflects a need to employ a precautionary, risk-based approach, taking into consideration the likelihood of the hazard and the vulnerability of a site. The structure Plan avoids developing the vulnerable land and aligns with this policy.
<b>3.9 REGIONAL FORM, DESIGN AND FUNCTION</b>	
<b>Provision</b>	<b>Comment/ Analysis</b>
<b>Objective 22 A compact well designed and sustainable regional form that has an integrated, safe and responsive transport network and (f) strategically planned rural development;</b>	<b>The Structure Plan provides for an integrated rural/rural residential development with enough lots to rationalise on the provision of transport and associated infrastructure. The proposal is consistent with the objective</b>
<b>Policy 56:</b> Managing development in rural areas –	The proposed Structure Plan aligns with this policy as it creates a cluster of residential lots as anticipated by this policy. The proposal achieves diversification of lot sizes. It represents a sustainable use of the land resource for a variety of needs. The proposal avoids potential of ‘checkerboard’ development as possible under the status quo.
<b>3.10 RESOURCE MANAGEMENT WITH TANGATA WHENUA</b>	
<b>Provision</b>	<b>Comment/ Analysis</b>
<b>Objective 25 The concept of kaitiakitanga is integrated into the sustainable management of the Wellington region’s natural and physical resources</b>	Kaitiakitanga refers to the expression of Māori authority, mana ethics and guardianship and may be exercised in respect of a particular locality, place or resource. Kaitiakitanga (guardianship) involves the protection of mauri and a duty to care for the environment so that it remains in as good as, or better, state for future generations. The site is already developed and will not have any aspects significant to Tangata Whenua apart from maintaining good water quality on the Mangaroa River, which is a collective responsibility for landowners along the river. In general, the Structure Plan aligns with this policy.

	The Structure Plan proposes to take an active role in the guardianship and management of the land as opposed to fragmented and default decision making under the status quo.
<b>Policy 49: Recognizing and providing for matters of significance to tangata whenua</b>	Addressed Above
<b>3.11 SOIL AND MINERALS</b>	
<b>Provision</b>	<b>Comment/ Analysis</b>
<b>Objective 30 Soils maintain those desirable physical, chemical and biological characteristics that enable them to retain their ecosystem function and range of uses. ...</b>	There is no Class I or Class II land on the site. The alluvial flats at the front of the property are Class III. The proposed Structure Plan provides for the more dense subdivision outside these (more versatile) soils.
<b>Policy 59: Retaining highly productive agricultural land (Class I and II land)</b>	Not Applicable. There is no Class 1 or 2 soil in the Plan Change area (or elsewhere in Upper Hutt).

In summary, the District Plan already has integrated all aspects of the operative Greater Wellington Regional Policy Statement within its provisions. The proposed Plan Change gives effect to the relevant provisions of that Policy Statement.

#### **8.4.2 Greater Wellington Regional Soil Plan**

The following provides a brief analysis of the Plan Change against the relevant provisions of the Greater Wellington Regional Soil Plan.

<b>GENERAL OBJECTIVES</b>	
<b>Provisions</b>	<b>Comment/Analysis</b>
<b>Objective 4.1.2 The potential of the Region's soils to provide for a full range of uses for present and future generations is maintained or enhanced.</b>	The current use of the Plan Change site is primarily for pastoral agriculture with portions of land in production forestry (at harvest point) and indigenous forest.



	The Plan Change will most likely result in changes in land use. However, no aspect of the proposal will directly or consequentially result in a loss of the potential use of the Region's soils.
<b>Policy 4.2.4</b> <i>To encourage users of soil resources to adopt an ethic of stewardship for future generations.</i>	The Structure Plan will allow the areas of indigenous forest to be protected by covenant and management. It retains the opportunity for the versatile soils at the front of the plan change site to retain the potential for productive use.
<b>Policy 4.2.5</b> <i>To promote and facilitate the adoption of sustainable land management practices.</i>	The measures described in the Landscape Assessment and the Engineering Report have been included within the Structure Plan and ensure that sustainable land management practices will occur.
<b>MANAGEMENT OBJECTIVES</b>	
<b>Provisions</b>	<b>Comment/Analysis</b>
<b>Objective 4.1.6</b> <i>Land users and those who provide support services have a clear understanding of their respective roles and responsibilities for achieving sustainable land management.</i>	Addressed below
<b>Policy 4.2.10</b> <i>To recognize that voluntary action by land users is the preferred approach to achieving a change in unsustainable land management practices.</i>	The proposed Plan Change and resultant Structure Plan is a proactive and voluntary initiative by the landowner to achieve this policy. The proposal therefore aligns with this policy.
<b>Policy 4.2.12</b> <i>To ensure that territorial authorities adopt subdivision provisions in their district plans, and include conditions on subdivision consents, to avoid, remedy or mitigate adverse effects of soil disturbance and vegetation clearance, including any adverse effects on water quality or soil conservation, where those effects are associated with the subdivision of land.</i>	The proposed rules will enable the council to request relevant resource consents for the subdivision and development of the Plan Change area. These consents specifically include assessment of soil disturbance and vegetation clearance.

In summary, the proposed Plan Change is consistent with, and gives effect to, the relevant provisions of the operative Greater Wellington Regional Soil Plan.

#### **8.4.3 Proposed Greater Wellington Natural Resources Plan**

The following provides a brief analysis of the Plan Change against the relevant

provisions of the Proposed Greater Wellington Natural Resources Plan.

<b>3.4 NATURAL CHARACTER, FORM AND FUNCTION</b>	
<b>Provisions</b>	<b>Comment/Analysis</b>
<b><i>Objective 20: The risk, residual risk and adverse effects from natural hazards and climate change on people, the community and infrastructure are acceptable.</i></b>	Fully addressed in the consideration of Objective 21 and Policies 29 & 51 of the operative Greater Wellington Regional Policy Statement
<b><i>Objective 21: Inappropriate use and development in high hazard areas is avoided.</i></b>	Fully addressed in the consideration of Objective 21 and Policies 29 & 51 of the operative Greater Wellington Regional Policy Statement
<b><i>Policy P27: High hazard areas use and development, including hazard mitigation methods, in high hazard areas shall be avoided</i></b>	Subdivision and development within the plan change area will be subject to the provisions of the District Plan dealing with natural hazards.
<b><i>Policy P29: Climate change Particular regard shall be given to the potential for climate change to cause or exacerbate natural hazard events that could adversely affect use and development including: (b) river and lake flooding and erosion or aggradation</i></b>	The engineering report attached to Plan Change 42 addresses potential hazards and susceptibility to climate change. The plan change will promote a resilient subdivision.
<b>3.7 SITES WITH SIGNIFICANT VALUES</b>	
<b>Provisions</b>	<b>Comment/Analysis</b>
<b><i>O32 Outstanding natural features and landscapes are protected from inappropriate use and development</i></b>	Fully addressed in the consideration of Objective 17 and Policies 26, 28 & 50 of the operative Greater Wellington Regional Policy Statement
<b><i>O35 Ecosystems and habitats with significant indigenous biodiversity values are protected and restored</i></b>	Fully addressed in the consideration of Objective 16 and Policies 23, 24 & 47 of the operative Greater Wellington Regional Policy Statement
	While the area is not identified as having outstanding landscapes or significant indigenous biodiversity the proposal provides for both landscape and biodiversity protection.

<b>Policy P40:</b> <i>Ecosystems and habitats with significant indigenous biodiversity values. Protect and restore the following ecosystems and habitats with significant indigenous biodiversity values</i>	The structure plan will allow for the protection of the riparian and indigenous forest areas by covenants and active management of these areas
<b>Policy P42:</b> <i>Protecting and restoring ecosystems and habitats with significant indigenous biodiversity values</i>	As above.
<b>3.10 LAND USE</b>	
<b>Provisions</b>	<b>Comment/Analysis</b>
<b>Objective O44</b> <i>The adverse effects on soil and water from land use activities are minimised.</i>	<b>Addressed below</b>
P96: <i>Managing land use - Rural land use activities shall be managed using good management practice</i>	The proposed plan change makes site specific changes to the land use rules which relate to activities on land. These provide for sustainable development of the sites created by the subdivision. More general rural land use will be governed by the existing rules in the plan.

In summary, the proposed Plan Change is consistent with, and gives effect to, the relevant provisions of the proposed Greater Wellington Natural Resources Plan.

## 8.5 Upper Hutt Council Strategies and Policies

### 8.5.1 Land Use Strategy 2016 – 2043

The land Use Strategy was adopted by Council in September 2016. The strategy indicated that.

*“It was very clear from this exercise that the open spaces, quietness, and naturalness of the rural environment are reasons why people live in, work in and visit the area. The community also views agricultural activities or the rural area as important features that define the rural character”.*

The report also indicated that trends in the rural area include a decline in primary production on the valley floors and a move towards smaller scale rural type uses and an increase in the number of ‘lifestyle’ blocks created, with these proving popular in the property market.

Research undertaken to compile the Rural Foundation Report revealed that there is a

higher turnover of lifestyle lots of greater than 1 hectare. However, there is sustained demand for lifestyle blocks of around 1 hectare, indicating potential in this area.

Housing development in rural areas has the potential to meet increasing market demand for more lifestyle properties. Any increase in housing in the rural area would need to be carefully managed to ensure the values that attract people to those locations are retained.

The Land Use Strategy specifically identifies the need to provide rural lifestyle blocks in the Mangaroa Valley. The proposed Plan Change and subsequent Structure Plan allows for this development form to happen, by providing a variety of site sizes and characteristics.

Overall, it is considered that the proposed Plan Change and subsequent Structure Plan achieves the intent of the Land Use Strategy. The proposal aligns with this strategy by providing a variety of lot sizes and housing typologies within the Mangaroa Valley.

In summary, the proposed Plan Change and Structure Plan is consistent with the relevant provisions of the Upper Hutt Land Use Strategy.

### **8.5.2 Sustainability Strategy 2012 – 2022**

This Strategy identifies a number of projects that are proposed to be undertaken between 2012 and 2022 to improve the sustainability of Upper Hutt City. This strategy recognizes the need for building resilient communities against natural hazards and mitigating natural hazard risk.

While the identified flood risk within the Mangaroa River and Pinehaven Stream are not addressed specifically in detail, the proposal will concentrate development in the less vulnerable rural residential area and provide for larger lots in the areas identified as vulnerable to inundation. Consequently, the outcomes sought in this Plan Change support the sustainability strategy.

Providing mixed-use areas of residential and rural development with residential housing in proximity to agriculturally productive land is consistent with increasing community resilience through diversity.

In summary, the proposed Plan Change Plan is consistent with the relevant provisions of the operative Upper Hutt Sustainability Strategy.

## **9. Assessment of Effects on the Environment**

### **9.1 Overview**

This part of the report provides an assessment of effects on the environment in accordance with Clause 22(2) of the First Schedule of the Resource Management Act 1991. This assessment relates to the effects anticipated from the implementation of the proposed Plan Change and subsequent Structure Plan.

A key consideration of the proposed Plan Change is that it does not introduce any new permitted activities within the plan and hence on a strict interpretation of the requirement cannot result in any adverse effects on the environment. The proposed Plan Change makes subdivision which in accordance with the Structure Plan, Controlled (Stage 1) or, Restricted Discretionary (Stage 2) and in each case the controls/restrictions provide the ability for Council to include conditions to address any foreseeable adverse effects. No land use activity is more permissive in terms of consent status than in the current zoning. As such, the effects on the environment will be considered at the time of subdivision.

It can however be anticipated that the future development of the Plan Change Area will result in:

Stage 1:

- The Lower Valley Landscape Area in the structure plan will be subdivided into four Lots with an average density equivalent to the current Rural Valley Floor Zoning. The boundaries of these lots will be established by the Structure Plan.
- The Upper Valley Area in the Structure Plan will be subdivided into 10 Lots. These Lots will have an average size of 1.6 Ha. This area will be developed more densely than the current (predominantly) Rural Hill Zoning. The boundaries of these lots will be established by the structure plan.
- The East Landscape Area will be developed into up to 4 lots with an average size of 4.1 Ha. This area will be developed more densely than the current (predominantly) Rural Hill Zoning. The boundaries of these lots will be established by a single subdivision consent.
- The West Landscape Area will be developed into up to 12 lots with an average size of 2.4 Ha. This area will be developed more densely than the current (predominantly) Rural Hill Zoning. The boundaries of these lots will

be established by a single subdivision consent.

The analysis of environmental effects is undertaken based on the anticipated future development of the site rather than on the basis of any rights conferred by the Plan Change.

The site varies from flat to moderately sloping, and is mostly currently under pasture with farm buildings with areas of indigenous and mature plantation forest. As discussed previously, there are consented activities, which form part of the receiving environment. The site is currently zoned Rural Valley Floor and Rural Hill, which, as discussed previously, creates an anticipated baseline. Both the receiving environment and the anticipated baseline have been considered in this assessment.

The following provides an assessment of the effects of the proposed Plan Change, recognizing the context of the site.

## **9.2 Landscape**

### **9.2.1 Landscape Assessment**

The Structure Plan provides for a comprehensive rural development within the Mangaroa Valley at an overall density which is greater than the current Rural Valley Floor and Rural Hill zones. At an average property size of 2.6ha/per property, it is however at a similar density to the 14 occupied properties that are adjacent (including properties directly on the opposite side of Mangaroa Valley Rd) to the plan change site. These properties also have an average density of 2.6Ha. As the site will only have one property fronting Mangaroa Valley Rd, the main street front character change will be the access road.

The landscape assessment attached as **Attachment 7** provides a full assessment of the landscape character of the site and the suitability for the proposed Plan Change. The staged approach adopted by the Plan Change is a direct result of the Landscape Assessments' conclusions.

The Landscape assessment divides the plan change site into 4 landscape areas with different characteristics and describes each of these characters as:

*The **Low Valley** area adjoins Mangaroa Valley Road and runs up to the paper road an approximate area of 13 hectares. The Mangaroa Valley Road boundary is bisected by an older lifestyle lot at 34 Mangaroa Valley Road. The Low Valley is a flat grass area running up to a small river*

valley terrace approximately 330m to 500m from the Mangaroa Valley Road. There is limited tree vegetation with a scattering of trees along the central road and tree vegetation adjoining Mangaroa River to the west. There is a farm building to the north west of this area. Views of the building are limited from Mangaroa Valley Road due to 34 Mangaroa Valley Road.

The **Upper Valley** area is grassland with an approximate area of 16 hectares and made up of low gradient slopes with a North West aspect. Vegetation cover is limited to a shelter belt of gums cross the bottom area and scattering of vegetation along a small bisecting stream. Views down the valley are funneled in a North West direction by the surrounding hills and hillside vegetation. Views on to this part of the farm are limited due to the surrounding hills and vegetation both on the Riverside Farm and tree cover of adjoining properties along the main roads. The clearest distant views of the top portion of the Upper Valley area are from Wallaceville Road.

The **Eastern Hills** are moderate to steep gradient hills. At the base of the Eastern Hill area is a small stream. Native beech vegetation adjoins the stream on a steep hill face and more extensive native shrub vegetation covers the top of the Eastern Hills. The Eastern Hills area has an approximate area of 17 hectares highest point of the farm at 295m.

Two farm tracks dissect the main ridge of the Eastern Hills the northern track is visible from Wallaceville Road and northern areas of Mangaroa Valley.

The **Southern Hills** area is the biggest area of Riverside Farm with an approximate area of 31 hectares. This area is made up of two main grass ridges surrounded with pine plantation (on the farm) to the south and tree vegetation on steeper faces of the hill. The western boundary of this area is the Mangaroa River. There are two farm tracks one going up to the top of the ridges and the other lower track following beside Mangaroa River. The southern hills are visible from Mangaroa Valley with the grass ridges surrounded by pine trees being a visually noticeable.

Extensive views out over Mangaroa Valley are gained from this hillside.





The proposed plan change provides for the subdivision of the site resulting in a maximum of thirty sites. The subdivision is based on two stages each of which involves two landscape areas. Each of these areas has different characteristics and the maintenance and enhancement of landscape values requires a different treatment for each of the areas. The Structure Plan provides guidelines for each of these areas that explicitly includes maintenance and enhancement of landscape values.

The stage one areas are flat to gently sloping and development of the sites are not topographically sensitive with regards to placement of dwellings. The key landscape issues are overall density, proximity to the Mangaroa Valley Rd and visibility by neighbours. Other constraints include flood vulnerability, and the position of the access road.

The structure plan identifies lot numbers and boundaries for stage 1 and allows for subdivision that conforms to these numbers and boundaries as a controlled activity.

The proposed boundaries results in only one site with frontage onto Mangaroa Valley Rd (road frontage 120m). Another site is directly accessed from Mangaroa Valley Rd, but is set back from it.

The stage 1 plan provides for smaller lots in the Upper Valley landscape area, where the sites are well separated from neighbours and are not visually prominent.

Subdivision which seeks to change the site boundaries in the stage one areas is generally a restricted discretionary activity which explicitly requires consideration of the guidelines of the structure Plan and the requirement for landscaping.

Subdivision which increases site numbers is a non-complying activity, which requires consistency with the structure plan guidelines.

The stage two areas include a variety of land topography and have areas which are more generally visible and topographically sensitive. Four of the five conservation areas, are also located in the stage two area. The stage two area includes the southern and eastern landscape areas.

The structure plan identifies maximum lot numbers for each of the two landscape areas and provides for a single consent subdividing each of these areas as a restricted discretionary activity. These consents have to define a building platform for each site. Restrictions include an assessment of the landscape effects of the location of building platforms, compliance with the landscape area guidelines and

design characteristics of dwellings to be built on the site.

Subdivision which fits outside the initial subdivision of the two landscape areas will generally be a non-complying activity which requires consistency with the structure plan guidelines.

Dwellings and other buildings constructed within building platforms will require controlled activity consent, with control over landscaping to achieve landscape area guidelines being one of the matters of control.

Buildings outside the identified building platforms are a discretionary activity with consistency with landscape area guidelines being identified as a matter of discretion.

Access roads and tracks in the stage 2 area which are not part of the initial subdivision are also identified as restricted discretionary activities and have several landscape related restrictions.

The indigenous vegetation clearance and conservation area protections addressed in the next section also have collateral benefits for landscape protection.

The Structure plan sets out guidelines for each of the four landscape areas. These guidelines each identify appropriate landscape outcomes for the respective areas.

### **9.3 Conservation Values**

The plan change site has been used for pastoral farming for over 100 years and parts have been used for plantation forestry for approximately 30 years. The site layout was developed as a dairy farm and the current use of the pastoral areas is for beef grazing.

Despite the History of pastoral farming, the site does still have areas of indigenous vegetation. Information provided by Upper Hutt City Council, from its (yet to be released) preliminary assessment of significant conservation areas identified three areas on the site. Two other areas have also been identified as part of this survey. These are described in detail in the Landscape Assessment attached to this report as **Attachment 7**.

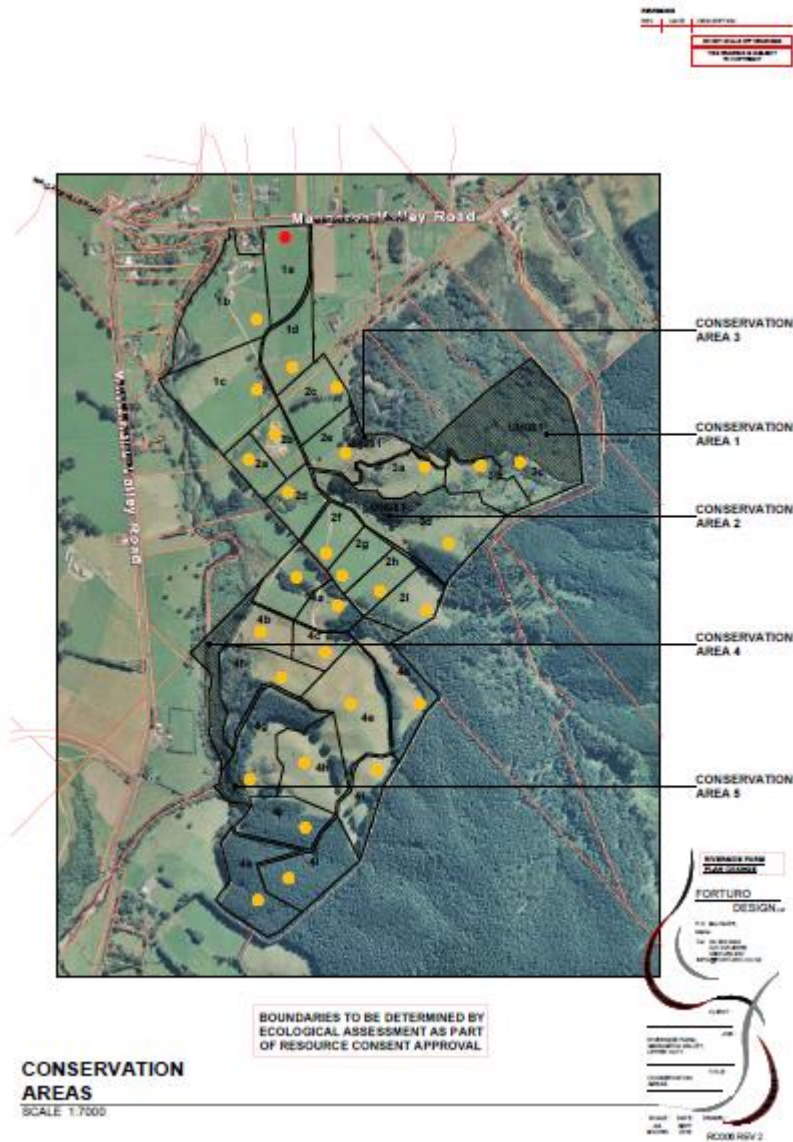


Figure 5 Conservation Areas

The areas are:

**Area 1** This area is a 7Ha area of mid stage regenerating forest which is part of a larger forest area spread over part of the six adjoining lots to the north east and west. The forest is diverse with a wide range of typical broadleaf species and occasional podocarps. There are some emergent beech. The forest remnant within the property is fenced and the quality is a deliberate result of the current farm management. Overall, the conservation value of this area is assessed as being moderate to high. This area has been identified in the Upper Hutt City Council preliminary assessment of significant conservation areas.

**Area 2:** *This area is a 1.3 Ha remnant stand of mature red beech. The Stand is isolated and is approximately 88m from the nearest contiguous forest stand. The forest on the plan change area is not fenced and has been grazed for many years. The beech trees are showing signs of senescence. The undergrowth is of poor quality and dominated by weed species such as blackberry and barberry. Overall the conservation value of this area is assessed as being low in its current state but with the potential to be moderate with appropriate management. This area has been identified in the Upper Hutt City Council preliminary assessment of significant conservation areas.*

**Area 3:** *This area is a 0.2 Ha area of mature red beech. It forms part of a larger area of beech forest on an adjacent property which is not formally protected. The area of trees on the plan change site is not fenced and has been grazed for many years. The beech trees are showing signs of senescence. The undergrowth is of poor quality and dominated by weed species such as blackberry and barberry. The adjacent forest is of better quality. Overall the conservation value of the part of area on this site is assessed as being low in its current state and will remain of low value unless active protection of both this stand and the larger adjacent forest area is undertaken. It is however possible to improve the area within the Plan Change area. This area has been identified in the Upper Hutt City Council preliminary assessment of significant conservation areas.*

**Area 4:** *This area consists of a triangle of land of 1 Ha in area on the western side of the Mangaroa River. The area is not an esplanade area as it is of varying distance from the river and in parts is more than 20m from the river. It is however almost entirely riparian in character. The area is dominated by weed species, with early seral indigenous regrowth. The site is most very steep. The site is fenced off from the remainder of the plan change area, but is not fenced on its river boundary. The conservation value of this site is identified as moderate primarily through its riparian location. The value could improve as part of a wider riparian conservation initiative with neighbouring properties. This area has **not** been identified in the Upper Hutt City Council preliminary assessment of significant conservation areas.*

**Area 5** *This area is a 0.4 Ha area of healthy, regenerating black beech*

*adjacent to the riparian area on the neighbouring property. These trees are not fenced and are vulnerable to grazing. Overall the conservation value of this SNA is assessed as being moderate in its current state and will remain of moderate value unless active protection of both this stand and the adjacent riparian area is undertaken. This area has **not** been identified in the Upper Hutt City Council preliminary assessment of significant conservation areas.*

The plan change proposes that each of these areas is protected by covenant, which includes active management of each site. The protective measures are detailed in the ecological assessment.

In addition to the conservation areas, the five small streams running through the property have also been identified as having potential conservation value. Four of these streams currently run from the plantation forest to the east of the site through open pasture through the site. The fifth stream runs through the plantation forest on the plan change site. It is proposed to fence the riparian margins of the streams and to provide riparian planting of the permanent streams.

The proposed conservation measures for the five areas and the streams will provide a significant conservation benefit for the Plan Change area.

### **9.2.3 How Conservation Areas will be Protected**

There are three different sorts of conservation values which are explicitly protected in the plan.

The values five conservation areas identified above will be maintained and enhanced by:

- Not including any one of the areas in more than two sites so that they are kept intact.
- Requiring a protective covenant for each of the lots as part of the Stage 2 subdivision process: including:
  - Fencing to the extent practical; and
  - Management programs appropriate for the values and requirements of each area.
  - Requiring consent for any activities within the areas the apart from

activities which are directed towards maintaining or enhancing conservation values.

Clearance of more than 500m<sup>2</sup> indigenous vegetation areas (outside the conservation areas) requires consent as a discretionary activity with several matters of discretion related to protecting conservation values.

Stream margins will be required to be fenced and planted as part of the stage 2 subdivision approval.

#### **9.4 Heritage**

The Operative Upper Hutt District Plan includes a list of Notable Trees, and heritage features. However, there are no known notable trees or heritage features on the subject site. Consequently, such considerations will not form part of this application.

#### **9.5 Engineering.**

An engineering report is attached as **Attachment 8** of this application. The report addresses the following issues:

**Seismic:** “the site in general should be considered relatively lightly exposed to seismic risks”.

**Flooding:** As addressed above there is a flood hazard area identified on District Plan Hazard Maps 25 and 26. The flooding plan overlays the extent of the mapped hazard over the part of the site affected.

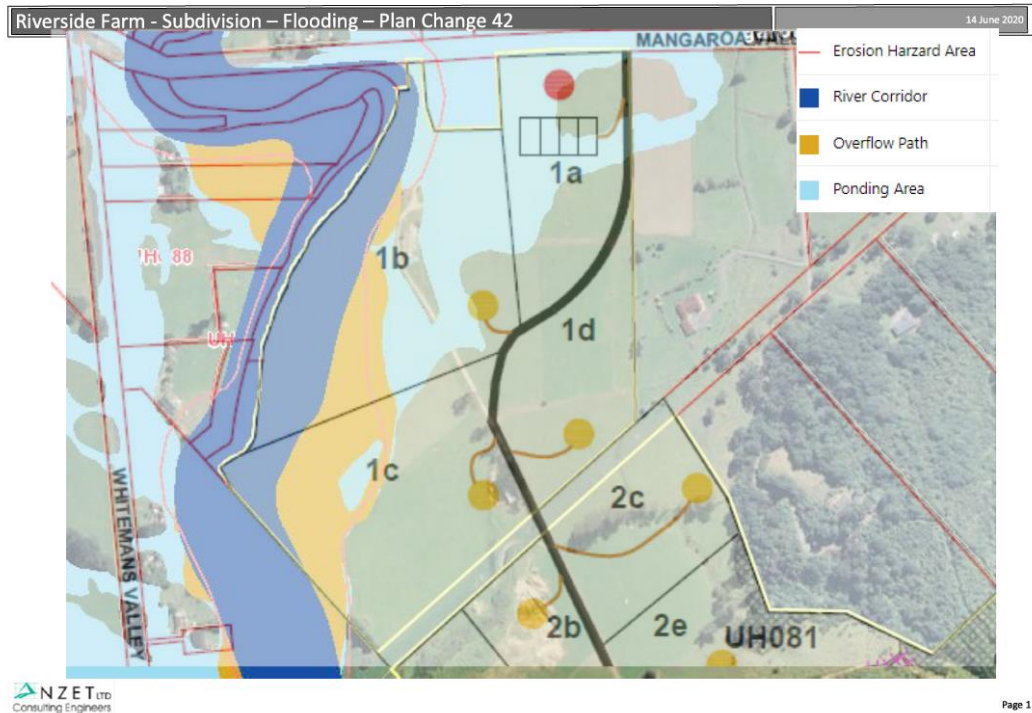


Figure 10. UHCC GIS Flood Mapping – Plan change 42. Area of the northern flats shown as influenced by

### Source NZET Engineering report **Attachment 8**

As can be seen the flood hazard affects three of the Lower Valley Lots included in stage 1 of the proposal. Each of the lots however have an area which is not covered by the flood hazard and is of an adequate size to allow for site development typical of the sort of rural use anticipated. The provisions of Chapter 33 of the District are adequate to manage this hazard, should future owners of these lots wish to develop parts of their site, which are located within a mapped area. With regards to the small streams the report concludes: *... given their relatively steep gradient and defined channels it is extremely unlikely that a high intensity event would result in anything more than a short-term modest increase in the wetted margins of these streams, (as opposed to widespread flooding)...*

**Site Contamination:** *On enquiry however, none of these activities [HAIL activities associated with farming] has occurred on the proposed subdivision site. It is also not immediately adjacent to any other known contaminated site and is not listed on GW's SLUR register... There is therefore no reason to undertake further site contamination investigations.*

**Wind:** *Inspection...did not identify any specific areas on the site which would represent wind channels creating localised elevated wind speeds in excess of*

*those calculated under NZS 3604 or NZS 1170. Identification of building platforms and building consent approval can address any wind hazard issues.*

**Land Stability:** *A review of the Greater Wellington GIS database, in conjunction with a site walkover by an experienced....civil engineer and geologist, have not identified any significant land stability issues. No slips or slip scarps are shown on the database and tracks which have been in place for many decades have shown little, if any signs of ongoing cut slope instability... A recent review of the Residential and Rural Chapters of the UHCC District Plan<sup>1</sup> provided an overview of the Geological Hazards for specific areas of Upper Hutt. Part of the proposed subdivision comes within these “review areas” as shown in Coffey’s Map – figure G0. The Coffey conclusions were that “slope instability may occur on the steep greywacke hill slopes. These areas being greater than 26 degrees slope angle require a specific geotechnical assessment by a geo-professional prior to development. As the scale of the Coffey figure identifying areas of high slope hazard does not lend itself to a detailed comparison with the subdivision site, a specific map has been prepared based on Greater Wellington’s slope overlay. This is shown in figure 16 below. As can be seen none of the area falls into even the yellow (21-30-degree slope) zone.*



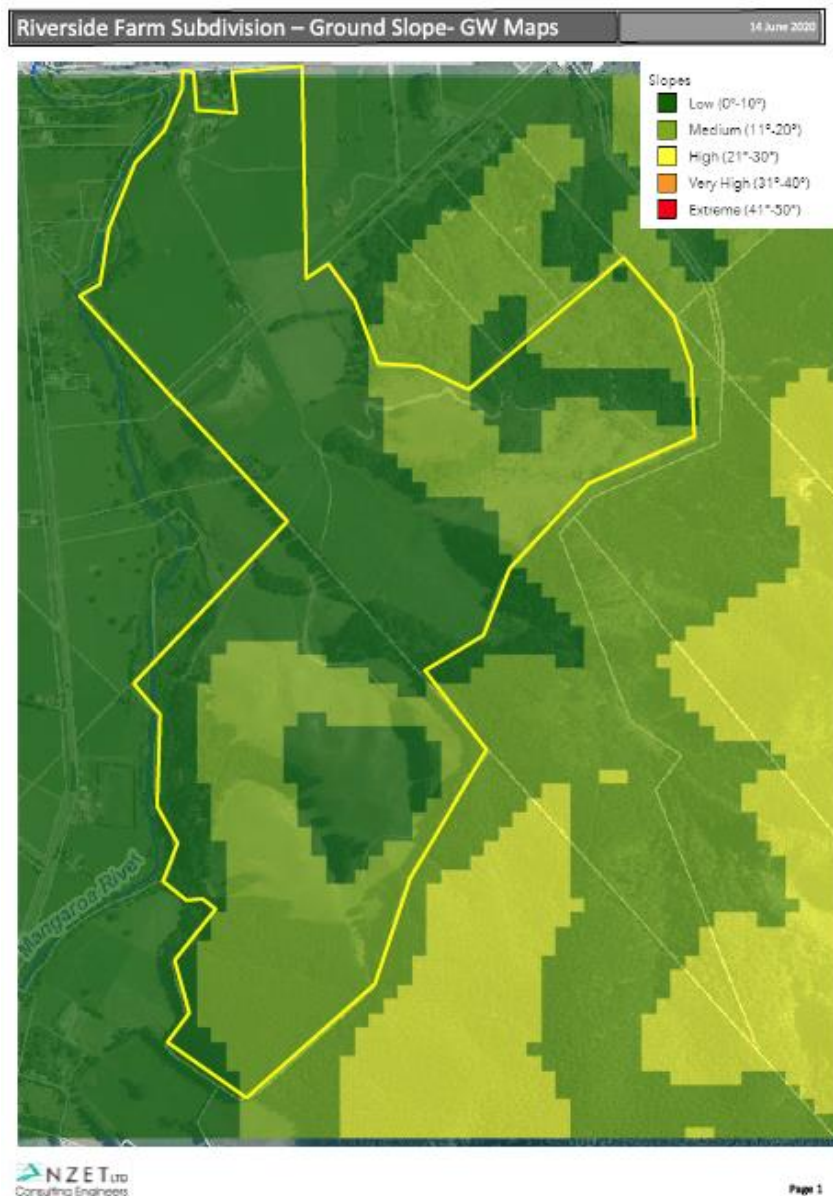
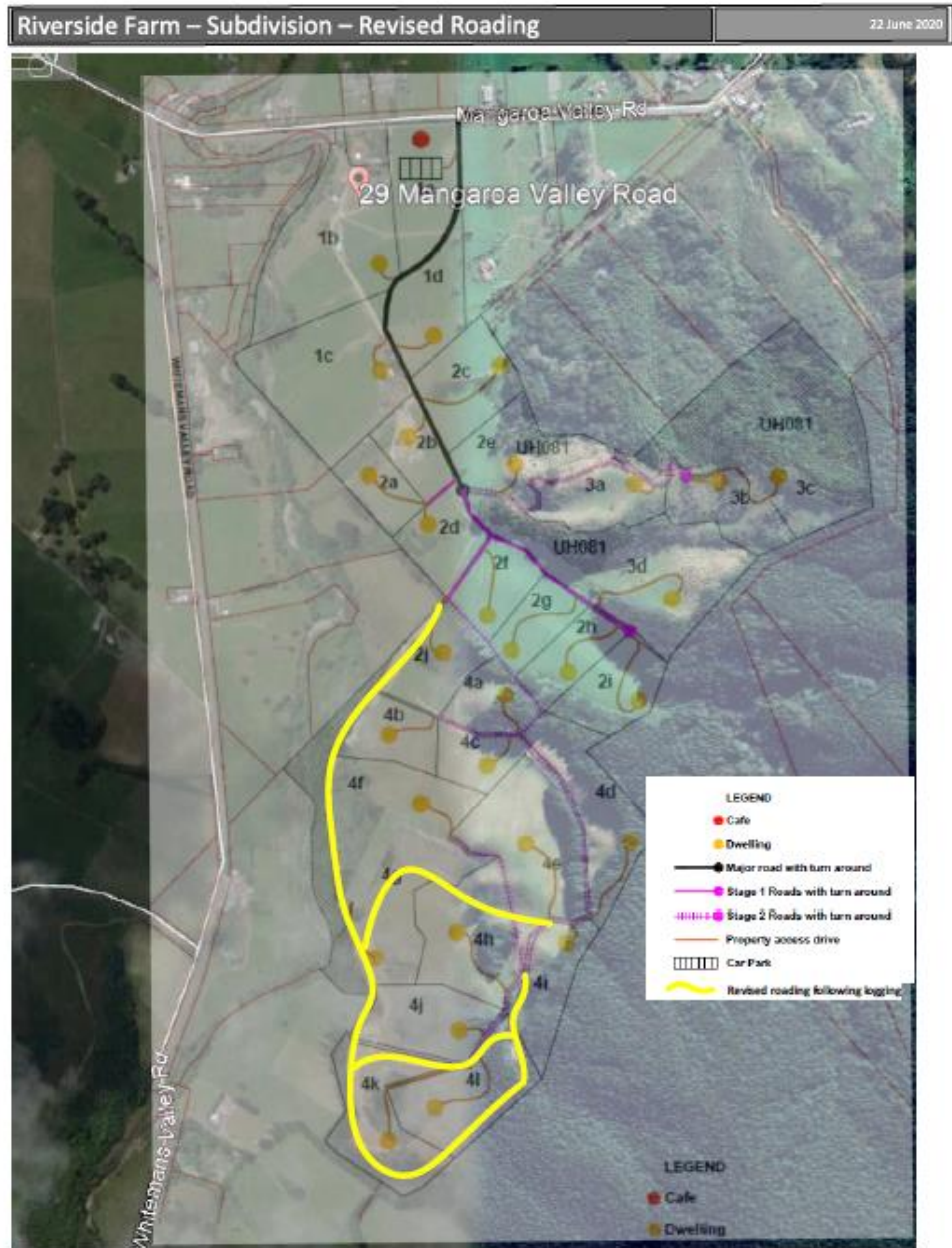


Figure 16. GW GIS Ground slopes in proposed subdivision area, (yellow line).

Source NZET Engineering report **Attachment 8**

**Roading:** *Roading design has been discussed with Andrew Sarniak roading engineer of the UHCC who has nominally accepted the proposed roading infrastructure as a basis for further discussion and refinement. UHCC will entertain alternatives which achieve a similar outcome. This initial layout and design assumes that all roads will be privately owned and maintained. The proposed Roding Design has been altered as a result of forestry operations on the site to utilise forestry Roads which have been formed to remove logs. The new road layout is different from that shown on the indicative Lot layout for Stage 2 of the structure plan. As the roading and lot layout in stage 2 is to*

be determined by resource consents the variance is not material.



NZET LTD  
Consulting Engineers

Page 1

Figure 18. Proposed roading layout.

Source NZET Engineering report **Attachment 8**

**Water Supply:** ...it would appear prudent to specify a minimum of 90 m<sup>3</sup> (3 x 30m<sup>3</sup> tanks), for potable water supply for the subdivided lots. As the Upper Hutt City Council has yet to adopt the fire services code of practice including the requirement for 45 m<sup>3</sup> of dedicated firefighting water to be available for isolated dwellings not serviced by a reticulated water supply, such a provision is not

*mandatory but is also recommended.*

**Stormwater:** *It is important that stormwater generated especially on the steeper lots is appropriately disposed of.... The properties on the lower lying land to the north have been identified to have good ground soakage and stormwater disposal by the standard Upper Hutt City Council recommended rural soak pit ...is recommended... roadside water tables, leading to local road water tables and from there to appropriate discharge points are recommended.*

**Wastewater:** *The proposal for wastewater treatment and disposal is by on-site systems on each individual lot..... For the design of on-site systems on individual lots, a full site investigation ... is recommended.*

**Earthworks:** No particular difficulties associated with earthworks were identified and the engineering recommendations have been incorporated within the Structure Plan will have self-contained services which is typical of all lots within the rural areas of Upper Hutt.

## **9.6 Traffic effects**

The proposed site development has the potential to add an additional 300 Traffic movements onto Mangaroa Valley Road and the roading systems (230 more movements than the potential under current zoning). Two traffic assessments have been prepared in recent times addressing the plan change site traffic. The first assessment prepared for the Café Consent concluded that:

*The proposed intersection of the private Road with Mangaroa Valley Road is well located and does not result in adverse effects from Vehicles entering and leaving.*

The second assessment prepared to evaluate the effects of the proposed plan change is included as **Attachment 11**. This assessment concluded:

*The findings of this transportation assessment can be summarised as follows:*

- *the site is currently undeveloped with little regular traffic activity;*
- *the proposed plan change and associated Structure Plan could result in a total of up to 30 vehicle movements per hour during the busiest hours of traffic activity;*

- *there is spare capacity within the local road network for traffic associated with the Plan Change site;*
- *the historic road safety record is good and shows no patterns or trends that need addressing as part of this proposal;*
- *the forecast traffic levels can be readily accommodated within the local road network; and*
- *safe connection to and from and use of the local road network is expected.*

*Accordingly the site can be rezoned to Rural Valley Floor zone and developed for rural residential purposes with the development expected to be consistent with the transportation related objectives, policies and rules of the District Plan.*

## **10. Conclusion**

This evaluation report has been prepared in accordance with the First Schedule and Section 32 of the Resource Management Act.

The area which the plan change covers is zoned a mixture of Rural Valley Floor and Rural Hill. The plan change seeks to change the Rural Hill portion of the area to Rural Valley Floor. This is based on:

- Land in the vicinity of the area with similar contour is all zoned Rural Valley Floor.
- The Rural Hill zone seeks to protect forested areas whereas the subject land is mostly in pasture.
- Similar land in the vicinity is all subdivided into blocks which are reflective of the density of subdivision allowed by the Rural Valley Floor zone.
- The reverse sensitivity issues raised by the surrounding subdivision make it next to impossible to manage a commercial farm, or any other commercial enterprise on the site.

The Plan change also seeks to establish a mixed density subdivision pattern on the site through the use of a Structure Plan. This Structure Plan has two stages each of which has two landscape areas:

- Stage 1 covers the valley area. This stage of the structure plan provides lot boundaries for subdivision of the sites. Stage 1 includes:
  - The lower valley area where an average site size of 4Ha will provide the best opportunity for use of the versatile land.
  - The upper valley area comprising the gently sloping areas which allows for more intensive subdivision to a minimum site size of 1Ha.
- Stage 2 covers the eastern and southern hill landscape areas. For each of these areas it is proposed that a single restricted discretionary subdivision consent will establish the site boundaries. The consent is constrained by the total number of lots which can be included. Strong controls for these subdivisions protect landscape, amenity and conservation values. There is a landscape area comprising the forested areas and moderate slopes.

The proposal will result in a subdivision that is denser than allowed as a controlled activity in the Rural Valley Floor zone, but at a density which is consistent with the surround properties which includes the establishment of dwellings. Landscaping, protection of conservation lots and development controls ensure visual effects of the proposed density higher than the Rural Valley Floor Zoning would be minimized.

The proposed Structure Plan also provides for the positive landscape effects caused by a diversity of lot sizes rather than the checkerboard pattern that the current zoning drives. This is particularly appropriate given the topography of the site.

Based on the detailed evaluation of options, this report finds that the most appropriate option is the proposed Structure Plan within an underlying Rural Valley Floor Zone.

The proposed Structure Plan is consistent with the Objectives for the Rural Area and all other relevant objectives. It better achieves these objectives on this site than the current provisions.

The proposed changes to two policies and supporting methods achieve the aims of the plan change for the area. They represent the most effective and efficient way to achieving the aims.

Looking at the wider strategic context for development of the rural area of Upper Hutt as expressed in policies prepared by the Council under the Local Government Act, the proposed Plan Change meets the challenges identified and provides for the outcomes sought by those documents.

Having undertaken a detailed assessment of the site, and addressing the relevant statutory documents, this evaluation finds that the proposed plan change is appropriate. It represents effective and efficient use of land. It promotes the sustainable management of natural and physical resources on this site in the context of all relevant statutory documents.

## Attachment 1 Property Title



### COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952



Search Copy

R.W. Muir  
Registrar-General  
of Land

**Identifier** 281069  
**Land Registration District** Wellington  
**Date Issued** 17 October 2006

**Prior References**  
49140

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**Estate** Fee Simple  
**Area** 77.7840 hectares more or less  
**Legal Description** Lot 2 Deposited Plan 369137 and Lot 1  
Deposited Plan 312502 and Part Lot 2  
Deposited Plan 58877

**Proprietors**

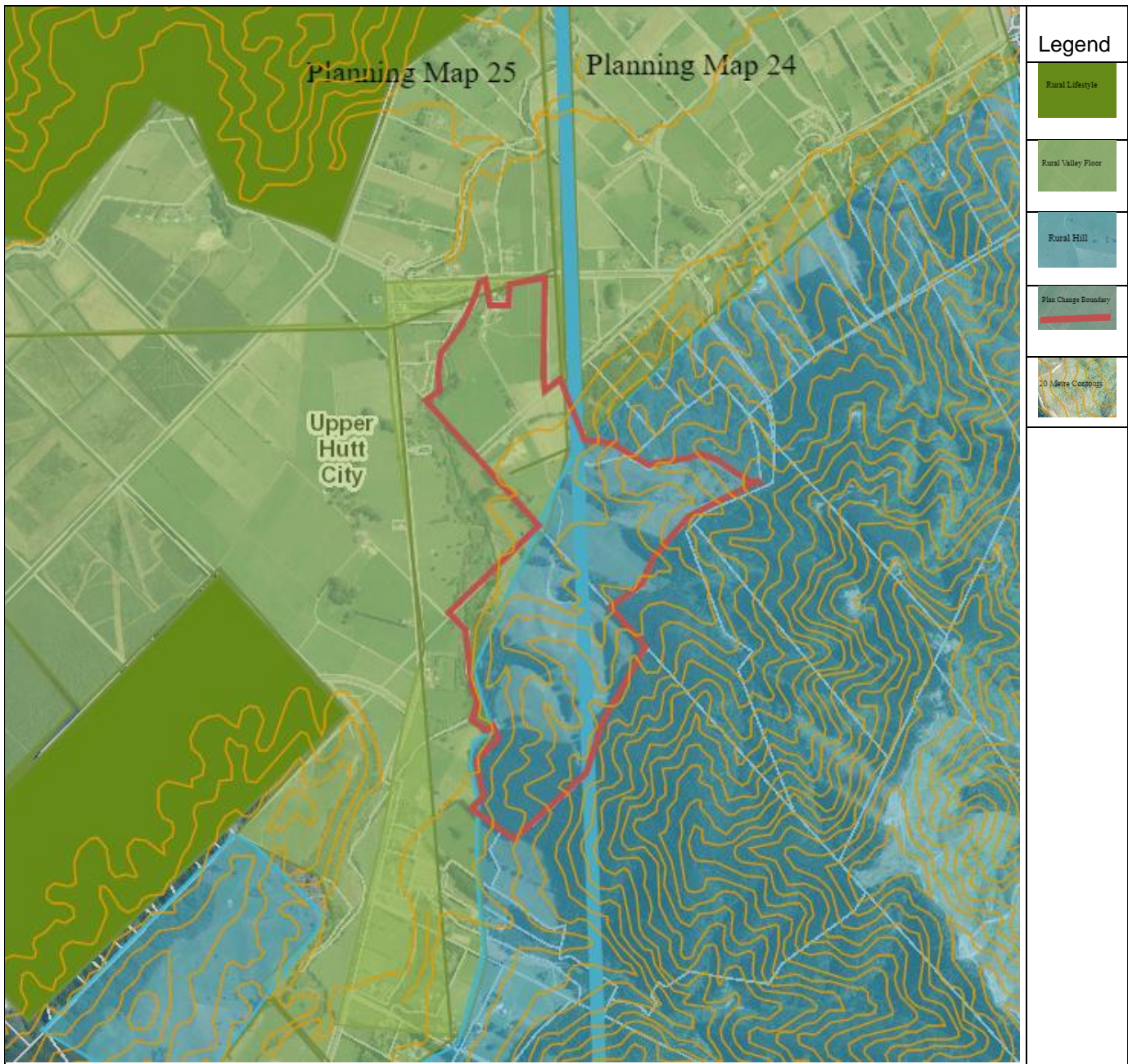
Mangaroa Heights Limited as to a 1/2 share  
Coral Marjorie Kidd, PR & CM Kidd Trustees Limited, Philip Russell Kidd and PR & CM Kidd Trustees Limited as  
to a 1/2 share

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**Interests**

516880 Subject to the reservations as to coal, gold and silver (affects the part formerly in CT WN530/233)  
Fencing Covenant in Deed 924519.9 - 1.6.1988(affects Lot 2 DP 369137)  
Subject to a right to water supply over part Lot 2 marked B on DP 369137 as over part Lot 2 DP 58877 marked A  
on DP 58877 as specified in Easement Certificate 924519.8  
The easements specified in Easement Certificate 924519.8 are subject to Section 309 (1) (a) Local Government  
Act 1974  
Appurtenant hereto is a right of way specified in Easement Certificate B178592.3 - 25.6.1991 at 10.26 am (affects  
Lot 1 DP 312502))  
B422467.1 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 9.3.1995 at 2.15 pm (affects  
Lot 2 DP 369137 & Lot 2 DP 58877)  
Subject to Section 241(2) Resource Management Act 1991 (affects DP 369137)  
7073271.5 Esplanade Strip Instrument pursuant to Section 232 Resource Management Act 1991 - 17.10.2006 at  
9:00 am(affects Lot 2 DP 369137)  
7073271.6 Mortgage to ANZ National Bank Limited - 17.10.2006 at 9:00 am

**Attachment 2 Current Zoning (Approximate)**





**Attachment 3: Summary of Decision on Resource Consent RM1610131**

<p><b>Decision Granted 12 June 2017</b></p> <p><b>Summary of the Decision</b></p> <p>Resource consent is granted, for the reasons outlined in sections 6 to 11 of this decision. In particular:</p> <p><b>Effects</b></p> <p>a) I have no reason to conclude that traffic safety effects from the proposal are more than minor. The combination of low traffic volumes, very good site visibility and limitations on scale of the facility all lead to traffic safety effects being acceptable.</p> <p>b) While I completely recognise the validity of the submitters concerns on safety, the submitter examples given to me appear to be more poor driver or cyclist behaviour as opposed to being a consequence of unsafe road conditions or the additional traffic that this proposal would create.</p> <p>c) It is clear that there will be a change in the noise environment to that which currently exists with an increased level of activity. Short of declining the application, the only way for noise effects to be appropriately managed is by the use of the best practicable option approach to minimise any adverse effects from the operation of the facility.</p> <p>d) In this case, a combination of hours of operation, restrictions on amplified music, a cap on seat numbers/ private functions and a good management approach to minimising annoyance is the best practicable option.</p> <p>e) The applicant and the reporting officer have however recommended conditions to control the adverse effects of noise and this includes a noise management plan and certification from an Acoustic Engineer that the proposal can meet the District Plan noise standards. With these stringent conditions, I conclude that the noise effects can be appropriately managed.</p> <p>f) There are minimal lighting effects from the proposal in my view. Additionally I conclude that any effects in respect of headlight glare are of short duration and are minor due the offset of the driveway from opposite properties and some frontage vegetation.</p> <p>g) In relation to the building itself, I note that it would be similar in scale and appearance to a number of other rural buildings. I was also advised that the building would comply with other bulk and location controls including height and separation distances from the property boundaries.</p> <p>h) The key amenity change is not related to the building but to levels of activity and this was the subject of consistently made views of the surrounding residents.</p> <p>i) There are a number of limitations either offered by the applicant or recommended in the conditions of consent. These dictate the levels of intensity</p>
<p>of the facility as well as when these activities can occur. I do not consider that that a rural café per se is out of context with the surrounding environment.</p> <p>j) There are no servicing effects such as wastewater disposal, that cannot be managed through design or conditions of consent.</p> <p>k) I accept the applicant’s view that the proposal will have some positive effects to Upper Hutt and that it would provide for the social and economic wellbeing of the applicant as well as users of the facility.</p> <p>l) Overall I consider the effects of the proposal to be acceptable.</p> <p><b>Policy Statements and Plans</b></p> <p>a) There are no higher order planning documents that are of particular relevance with the exception of the Regional Policy Statement (RPS). I conclude that the RPS presents no barrier to consent as in my opinion the proposal provides for the appropriate management of natural and physical resources and avoids inappropriate development.</p>

b) I have concluded that the application is not contrary to the objectives and policies of the Upper Hutt District Plan. However this application is not in my view, about inconsistency with objectives and policies but in terms of effects.

c) As the effects of the proposal are considered to be acceptable and I have concluded that the proposal is not contrary to the objectives and policies of the District Plan, the proposal passes through both limbs of the gateway test that applies to non-complying activities.

d) I have also applied a final filter of the effects and the objectives and policies through Part 2. There I consider that the proposal meets the sustainable management purpose of the Act.

**Conditions**

I have also considered the conditions proposed by the applicant and the Council after conferencing. I find that they are appropriately stringent particularly in respect of the noise environment. The only changes from that document are editorial to improve clarity.

**Decision**

Therefore, consent is **granted** subject to the conditions contained in Appendix 2 of this decision.

**Location of Café Site taken from evidence given at Planning Hearing**

**Image of site from Google Streetview – approximate location**



## **Attachment 4 Approved Café Traffic Assessment**

**In the Matter of:** The Resource Management Act 1991

**and**

**In the Matter of:** an application for non-complying resource consent to establish and operate a café, with the ability to hold private functions at 29 Mangaroa Valley Road, Upper Hutt

**Application By: P Kidd**

**Statement of Evidence of**

**Jacobus Michiel de Kock on behalf of Phil Kidd**

TDG

Telephone: +64-4-569 8497

E-Mail: cobus.dekock@tdg.co.nz

PO Box 30-721

LOWER HUTT 5040

14598 170501 Evidence

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### **Introduction**

1. My full name is Jacobus Michiel de Kock, I am a Professional Engineer and hold a Bachelor of Civil Engineering degree and a Masters of Civil Engineering degree from the University of Stellenbosch. I am:

(i) A Member of the Institution of Professional Engineers NZ (MIPENZ) and its specialist

Transportation sub group;

(ii) A Registered Professional Engineer with the Engineering Council of South Africa.

2. I have read and am familiar with the Code of Conduct for Expert Witnesses in the current (2014) Environment Court Practice Note. I agree to comply with this Code of Conduct in giving evidence to this hearing and have done so in preparing this written brief. The evidence I am giving is within my area of expertise, except where I state I am relying on the opinion or evidence of other witnesses. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed. I understand it is my duty to assist the hearing committee impartially on relevant matters within my area of expertise and that I am not an advocate for the party which has engaged me.

### **Evidence Summary**

3. In this matter, I have been asked by the Applicant, Mr. Phil Kidd, to address the traffic and transportation related matters of his application to establish a café at 29 Mangaroa Valley Road, as follows:

(i) Locality;

(ii) Existing Traffic on Mangaroa Valley Road;

(iii) The application;

(iv) I present my view on the vehicular traffic effects that the proposed café will have on Mangaroa Valley Road;

(v) I present my view on the access and egress for the proposed development;

(vi) I give my view on the proposed parking layout and capacity;

(vii) I present my view on the proposed on-site servicing;

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- (viii) I provide a summary of road safety along Mangaroa Valley Road;
- (ix) A summary of traffic and transport related issues raised by other submitters;
- (x) I present my views on the Section 42 Report; and
- (xi) I then present my conclusions from Paragraph 26.

### **Locality**

4. The location in the road network of 29 Mangaroa Valley Road is located in the network area of the Upper Hutt. **Figure 1** shows the principal road network serving the Upper Hutt with 29 Mangaroa Valley Road marked with a star. As shown, State Highway 2 serves as the main Arterial route connecting the Upper Hutt with Wellington and Lower Hutt to the South and to the Wairarapa to the North. Access to Mangaroa Valley Road is predominantly by means of Wallaceville Road, a Collector route, from the South and Flux Road to the North. Mangaroa Valley Road is classified as a Local Distributor route.

**Figure 1: Locality and Road Hierarchy** Page 3  
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### **Existing Traffic on Mangaroa Valley Road**

5. I obtained traffic volumes for Mangaroa Valley Road, from Upper Hutt City Council's most recent traffic count, dated Thursday 9 April 2015 to Wednesday 15 April 2015. This count indicates that the average daily traffic on Mangaroa Valley Road is 420 vehicles per day. In comparison Wallaceville Road has an average daily volume of 1600 vehicles per day and State Highway 2 has more than 20 000 vehicles per day.

6. The hourly traffic volume on Mangaroa Valley Road is as indicated on **Figure 2**, with the peak of 60 vehicles recorded on the Sunday between 13:00 and 14:00. Resulting in as little as 30 vehicles per direction per hour, this is a modest volume of traffic on this class of road and it equates to approximately a vehicle ever two minutes, if spread equally over the hour.

*Figure 2: Existing traffic volumes on Mangaroa Valley Road (UHCC - 9 to 15 April 2015)*

### **The Application**

7. The proposed development, as shown in **Figure 3**, of a 100 seat café at 29 Mangaroa Valley Road is positioned 45m set back from Mangaroa Valley Road, with 30 carparks and additional overflow parking if required.

8. The key elements in assessing the proposed development's traffic effects in this location centres on the detail of its access and egress, particularly the visibility and safety, the adequacy of its on-site parking and servicing.

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**Figure 3: Proposed layout of 29 Mangaroa Valley Road**

**Vehicular Traffic Effects**

9. The industry accepted trip generation rates for restaurant / café activity as included in the NZTA Research Report 453 – Trips and Parking Related to Land Use, November 2011, indicates the 85<sup>th</sup> percentile to be 0.5 peak hour trips per seat and 6.1 daily trips per seat. I believe, that due to the remote location of the proposed development that the vehicle occupancy will be slightly higher than general restaurants and therefor this 85<sup>th</sup> percentile estimate can be seen as a conservative estimate for generated traffic.

10. Using these trip generation rates, the proposed 100 seat café will generate a possible 50 peak hour vehicle trips per day. Resulting in 25 arrivals and 25 departures in the peak hour, if this peak generation were to correspond with the observed Sunday Peak hour, of 30 vehicles per direction, a total 55 vehicles per direction will utilise Mangaroa Valley Road. This can easily be accommodated with little or no effect to other road users.

11. The single lane bridge on Mangaroa Valley Road is currently carrying up to 60 vehicles per hour and it is 30m long with good visibility and clearly visible signage from both approaches. Elsewhere on the New Zealand road network we have single lane bridges that can handle up to 250 vehicles per hour. There will be no perceivable change in level of service or convenience noticeable to other road

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## Access and Egress

12. The driveway arrangement of 29 Mangaroa Valley Road has been positioned so as to ensure excellent visibility for entry and exit to and from the proposed development.

13. Access to 29 Mangaroa Road will be by means of a new 6m wide driveway that will allow for two way traffic, to enter and exit the site independently. The proposed 6m wide driveway will be sufficient to effectively allow customers, staff and service vehicles to access the site without causing vehicles to back up on Mangaroa Valley Road, as I indicated in Paragraphs 5, 6 and 10 there are sufficient gaps in the traffic on Mangaroa Valley Road to allow vehicles safely access the site.

14. This access is situated on the Southern side of an 800m long straight section of Mangaroa Valley Road, providing more than 330m sightline distance in both directions as shown on **Figures 4 and 5**. This sightline distance complies with all the requirements as stipulated in The New Zealand Standard (AS/NZS 2890.1:2004), Guidelines for visibility at driveways (RTS6) and the minimum requirements as stipulated in the District Plan and the Upper Hutt Code of Practice.

**Figure 4: Line of sight towards the West** Page 6

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**Figure 5: Line of sight towards the East**

15. Mangaroa Valley Road has two 3.4m traffic lanes divided by a centreline with edge lines on either side. There are hardened shoulders outside both edge lines, providing a total width of approximately 7m. This road width is sufficient to allow for access and egress manoeuvres in and out of the proposed site driveway without causing safety concerns.

**On-site Parking Provision**

16. The proposed development makes provision for 30 carparks of which two are accessibility carparks. Overflow parking will be available on-site on an open space beyond the formalised parking area. Staff parking and a service area will be provided behind the proposed building. This is in line with the District Plan that requires 30 carparks for a 100 seat restaurant.

17. The café is setback 45m from Mangaroa Valley Road, this distance will discourage café patrons to park on the road outside the proposed development.

18. The dimensions of the parks are 2.7m x 5m with a 6m isle and the accessibility parks are 3.5m x 5m which is in-line with the Upper Hutt City Code of Practice Car Parking Dimensions for casual parking with possible vehicle overhangs. Page 7

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## **Servicing**

19. Servicing will occur on-site in a dedicated service and staff parking space provided at the back of the proposed café as indicated on Figure 3.

## **Road Safety**

20. I performed a crash analysis using the NZTA's Crash Analysis System (SecureCAS) to look at crashes over the past 10 years, along Mangaroa Valley Road for approximately 450m to either side of proposed café road access. The investigation resulted on no crashes at the point of proposed access, one crash on the bend heading towards Flux Road and two crashes close to the single lane bridge. None of these crashes caused any reported injuries. The first crash at the single lane bridge involved a driver not paying attention and hitting the rear end of a slow moving truck and the second was caused by a driver swerving out to avoid hitting a farm animal straying onto the road. The crash history does not indicate any existing safety concerns in the vicinity of 29 Mangaroa Valley Road that require attention in conjunction with this proposal.

## **Submitter Evidence**

21. Transport-related submissions were received from eight other submitters, including residents of affected and neighbouring properties in Mangaroa Valley, Upper Hutt.

22. The submissions canvassed a range of issues, including:

- (i) traffic congestion and impact of extra traffic on the road;
- (ii) safety concerns at the proposed access to 29 Mangaroa Valley Road;
- (iii) safety concerns at the single lane bridge along Mangaroa Valley Road;
- (iv) parking concerns;
- (v) impact on pedestrians and cyclists; and
- (vi) need for public transport. Page 8

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23. My views on issues raised by submitters:

- (i) the low volume of existing traffic plus the additional traffic generated by the proposed development will not cause the any capacity concerns as described in Paragraphs 9 -11;
- (ii) the proposed development will allow for two way access, on a 6m wide driveway, with very good sightline distances in both directions at the intersection of Mangaroa Valley Road, as described in Paragraph 12 - 15, I am satisfied that this access is within the standards;
- (iii) in my view the low traffic volumes, good visibility and appropriate signage at the single lane bridge, will result that the additional traffic generated by the proposed development will have a minor to no perceivable impact, as described in Paragraph 11;
- (iv) in my view the parking provided on-site is sufficient to provide for all patrons, service vehicle and staff to park on-site, as described in Paragraphs 16 - 18. The 45m setback from Mangaroa Valley Road and the on-site overflow parking will be sufficient and I do not foresee any parking on the road shoulder;
- (v) in my view the 7m road width is sufficient for this quantum of traffic to safely share the movement lane with cyclists and for pedestrians to utilise the berm or shoulder, as stipulated in NZS 4404:2010 – Table 3.2 for a rural road. This is not any different to other rural roads within New Zealand’s road network where the road is safely shared between road users; and
- (vi) due to the nature, size and remote location of the proposed development I do not expect that there will be a need for public transport, to and from the restaurant. There is sufficient on-site parking for patrons and staff to travel by private vehicles.

#### **Response to Section 42 Report**

24. I have reviewed the Section 42A Report and the related reports prepared by Mr. Samuel Gifford, senior planner at Cuttriss Consultants and I note that the findings of Council’s Roading Engineer, Mr Patrick Hanaray, is similar with my own findings, we both conclude

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that the proposal will not present any significant Roading issues (as presented in Section 7.4, 7.5 and Appendix 7 of the Section 42A Report).

25. I support the conditions as presented in Section 12.2.6, with the wording of 12.2.6.3 amended as follows:

*“6.3 The consent holder shall manage the site to ensure that no visibly suspended dust blows beyond site boundaries from the driveway or parking areas, including the overflow parking area.”*

**Conclusion**

26. My evidence has assessed the traffic and transport related matters that I am aware of in relation to this proposed development.

27. I support the proposed development from a traffic and transport viewpoint as the impact associated access, parking and servicing arrangements have been designed in such a way as to provide suitable and adequate facilities to accommodate the vehicle demands generated by the proposed development.

28. Overall, it is assessed that the proposed development would not cause the function, safety or capacity of the adjacent road network to be compromised, and that an appropriate transportation outcome for all existing and new users can be delivered, the proposed development can be supported from a traffic and transportation perspective.

Cobus de Kock

Traffic Design Group

16 May 2017

**Attachment 5: Proposed Structure Plan**

## Chapter 40 Riverside Farm Structure Plan

### 40.1 Introduction

#### 40.1.1 Description

The Riverside Farm Structure Plan provides for mixed density rural-residential development in an area within the Valley Floor Sub-zone. The Structure Plan provides for rural-orientated uses appropriate to this particular environment. It also provides for the protection of landscape and conservation values.

The plan includes two stages, each of which includes two landscape areas.

**Stage 1** covers the valley area. This stage of the structure plan provides lot boundaries for subdivision of the sites. Stage 1 includes:

- The **lower valley landscape area** where an average site size of 3 Ha will provide the best opportunity for use of the versatile land.
- The **upper valley landscape area** comprising the gently sloping areas which allows for more intensive subdivision to a minimum site size of 1Ha.

**Stage 2** covers the eastern and southern hill landscape areas.

For each of these areas it is proposed that a single restricted discretionary subdivision consent will establish the site boundaries. The consent is constrained by the total number of lots which can be included. Strong controls for these subdivisions protect rural character, landscape values, amenity and conservation values.

#### 40.1.2 Intentions

The future development of the Structure Plan area will be developed to achieve a mixed density rural-residential area that will be consistent with the objectives and policies laid out in Chapter 5. The development will be controlled by the rules in this Chapter to ensure that development provides for positive land use, conservation and landscape effects.

#### 40.1.3 Outcome

The subdivision and subsequent rural residential development of up to thirty sites and the protection of five conservation areas.

### 40.2 Rules

#### 40.2.1 Activities Table

Rule	Description	Stage 1	Stage 2
	<b>Subdivision</b>		
40.2.1	Subdivision in accordance with the <b>Stage Plan</b> boundary configuration.	C	
40.3.1	Subdivision within the Area identified as Stage 1 not in accordance with the <b>Stage Plan</b> boundary configuration.– that does not increase the number of lots or result in one or more lots less than 1Ha	RD	
40.3.2	Subdivision within the area identified as Stage 2		RD
40.5.1	Subdivision not in accordance with the <b>Stage Plan</b> boundary configuration. – that increases number of lots, or results in one or more lots less than 1Ha	NC	
	<b>Land Use</b>		
40.1.1	Specified activities are permitted	P	P
40.1.2	Construction of a dwelling or accessory building	P	
40.1.3	Indigenous vegetation clearance up to total of 500m <sup>2</sup> total area and not located in an identified conservation area.	P	P
40.1.4	Construction of access roads and tracks in Stage 1	P	
40.2.2	Construction of a dwelling or accessory building		C
40.2.3	Family Flats on lots larger than 2ha.	C	C
40.3.3	Family Flats on lots smaller than 2ha.	RD	RD
40.3.4	Construction of a dwelling or accessory building outside an identified building platform		RD
40.3.5	Construction of access roads and tracks		RD
40.4.1	Family Flats on Lots smaller than 2Ha	D	D
40.4.2	Structures located within identified conservation areas.	D	D
40.4.3	Construction of access roads and tracks within identified Conservation Areas	D	D
40.4.4	Indigenous vegetation clearance of greater than 500m <sup>2</sup> total area outside an identified conservation area and indigenous vegetation clearance inside an identified conservation area	D	D
40.5.4	Animal Farming inside conservation areas.	NC	
	<b>General Rule</b>		
40.4.5	Activities listed as permitted or controlled which do not comply with the relevant standards in this Chapter, or Chapter 19.	D	D

### City Wide Provisions

Rule 40.1.0 Each activity including subdivision in the Riverside Farm Structure Plan shall comply with the relevant permitted activity standards in the City-wide provisions of the Plan as provided in Rule 19.3.

### Permitted Activities:

Rule 40.1.1 The following are permitted activities in all lots within the Riverside Farm Structure Plan area, subject to all relevant standards in Chapter 19:

- Farming activities except:
    - in an identified conservation area
    - intensive farming
  - Forestry
  - Vegetation clearance other than indigenous vegetation clearance
  - Home occupations incidental to residential activities carried out on the site
  - Passive recreation activities
  - Signs.
- Rule 40.1.2 The following are permitted activities in lots within the area identified as Stage 1 of the Riverside Farm Structure Plan area, subject to all relevant standards in Rules 19.9 – 19.20:
- One dwelling per site.
  - Buildings accessory to a permitted or controlled activity
- Rule 40.1.3 Indigenous vegetation clearance up to total of 500m<sup>2</sup> total area outside an identified conservation area, subject to all relevant standards in Rule 27A.9.
- Rule 40.1.4 Construction of access roads and tracks within the area identified as Stage 1 of the Riverside Farm Structure Plan area, outside an identified conservation area- subject to all relevant standards in Rule 19.8:

### Controlled Activities

- Rule 40.2.1 Subdivision within the area identified as Stage 1 of the Riverside Farm Structure Plan area which:
- (a) is in accordance with the **Stage Plan** boundary configuration.; and
  - (b) does not increase the number of sites in the stage 1 area beyond a total of 14 sites; and
  - (c) does not result in one or more sites with a net site area less than 1 ha.
- Council may impose conditions over the following matters:
- The identification of areas within which dwellings and or/accessory buildings must be located.
  - Landscaping.
  - Provision of and effects on utilities and/or services.
  - Standard, construction and layout of vehicular access.
  - Earthworks.
  - Protection of identified conservation areas, wetlands and streams.
  - Financial contributions.
- Rule 40.2.2 One dwelling per site and buildings accessory to a permitted or controlled activity in lots within a specified building platform in the area identified as Stage 2 of the Riverside Farm Structure Plan area [subject to standards]:
- Council may impose conditions over the following matters:
- Site layout (including buildings, driveway and outdoor living areas).
  - Landscaping to achieve the guidelines of the structure plan.
  - Building design, form, materials, textures, colour, reflectivity and exterior lighting to achieve the guidelines of the structure plan.
  - Provision of and effects on utilities and/or services.



- Standard, construction and layout of vehicular access to achieve the guidelines of the structure plan.
- Earthworks.
- Protection of identified conservation areas.
- Financial Contributions.

Rule 40.2.3 Family Flats on sites with a net site area larger than 2 ha.

- Land Tenure
- Location.
- Landscaping to achieve the guidelines of the structure plan.
- Building design, form, materials, textures, colour, reflectivity and exterior lighting to achieve the guidelines of the structure plan.
- Provision of and effects on utilities and/or services.
- Earthworks.
- Protection of identified conservation areas.
- Financial Contributions.

### Restricted Discretionary Activities

Rule 40.3.1 Subdivision within the area identified as Stage 1 of the Riverside Farm Structure Plan area which:

- (a) is not in accordance with the **Stage Plan** boundary configuration; and
- (b) does not increase the number of sites in the stage 1 area beyond a total of 14 sites; and
- (c) does not result in one or more sites with a net site area less than 1 ha.

Council will restrict its discretion to, and may impose conditions on:

- Site layout (including boundaries, buildings, and access).
- Landscaping to achieve the guidelines of the Riverside Farm Structure Plan.
- Provision of and effects on utilities and/or services.
- Standard, construction and layout of vehicular access.
- Earthworks.
- Protection of identified conservation areas.
- Financial Contributions.

Rule 40.3.2 Subdivision within the area identified as Stage 2 of the Riverside Farm Structure Plan area which:

- (a) Subdivides the complete area of the East Landscape Area, or the South Landscape Area (or both); and
- (b) does not result in more than 4 Sites in the East Landscape Area, or 12 Sites in the South Landscape Area. and
- (c) does not result in one or more sites with a net site area less than 1 ha; and specifies building platforms of not more than 2000m<sup>2</sup> on each site.

Council will restrict its discretion to, and may impose conditions on:

- The extent to which the building will affect rural character and landscape values.
- Site layout (including buildings, driveway and outdoor living areas).
- Landscaping to achieve the guidelines of the Riverside Farm Structure Plan.

- Building design, form, materials, textures, colour, reflectivity and exterior lighting to achieve the guidelines of the structure plan.
- Provision of, and effects on utilities and/or services to achieve the engineering guidelines of the Riverside Farm Structure Plan.
- Standard, construction and layout of vehicular access
- Earthworks.
- Protection of identified conservation areas.
- Financial Contributions.

Rule 40.3.3 Family flats on sites smaller than 2 ha within the area identified as Stage 1 of the Riverside Farm Structure Plan area; and

Family flats on sites smaller than 2 ha within the area identified as Stage 2 of the Riverside Farm Structure Plan area and which are located within an identified building platform.

Council will restrict its discretion to, and may impose conditions on:

- Land Tenure
- Location.
- Landscaping to achieve the guidelines of the Riverside Farm Structure Plan.
- Building design, form, appearance, materials, textures, colour, reflectivity and exterior lighting to achieve the guidelines of the structure plan.
- Standard, construction and layout of vehicular access
- Earthworks.
- Protection of identified conservation areas.
- Financial Contributions.

Rule 40.3.4 Construction of a dwelling or accessory building within the area identified as Stage 2 of the Riverside Farm Structure Plan area which is outside an identified building area and is not located in an identified conservation area.

Council will restrict its discretion to, and may impose conditions on:

- The extent to which the building will affect rural character and landscape values.
- Site layout (including buildings, driveway and outdoor living areas).
- Landscaping to achieve the guidelines of the structure plan.
- Building design, form, appearance, materials, textures, colour, reflectivity and exterior lighting to achieve the guidelines of the structure plan.
- Provision of and effects on utilities and/or services.
- Standard, construction and layout of vehicular access to achieve the guidelines of the structure plan.
- Earthworks.
- Protection of identified conservation areas.
- Financial Contributions.

Rule 40.3.5 Access roads and tracks within the area identified as Stage 2 of the Riverside Farm Structure Plan area which

- (a) are not approved as part of a subdivision; and
- (b) are not within an identified conservation area.

Council will restrict its discretion to, and may impose conditions on:

- The extent to which the accessway or track will affect rural character and landscape values.
- Landscaping to achieve the guidelines of the structure plan.
- Provision of and effects on utilities and/or services.
- Standard, construction and layout of vehicular access to achieve the guidelines of the structure plan.
- Earthworks.
- Protection of identified conservation areas.

### Discretionary Activities

Rule 40.4.1 Activities listed as permitted or controlled which do not comply with the relevant standards in this chapter, or Chapter 19. Matters that may be relevant in the consideration of these activities may include the following:

- |   |
|---|
| <ul style="list-style-type: none"> <li>• Relevant matters in the sections above and the Matters for Consideration in Rule 19.28.</li> </ul>                                       |
| <ul style="list-style-type: none"> <li>• The extent to which the subdivision and/or development is consistent with the guidelines in the Riverside Farm Structure Plan</li> </ul> |

Rule 40.4.2 Structures located within identified conservation areas. Matters that may be relevant in the consideration of these activities may include the following:

- |  |
|--|
| <ul style="list-style-type: none"> <li>• Relevant matters in the sections above and in the Matters for Consideration in Rule 19.28.</li> </ul>                 |
| <ul style="list-style-type: none"> <li>• The extent to which the development is consistent with the guidelines in the Riverside Farm Structure Plan</li> </ul> |
| <ul style="list-style-type: none"> <li>• The extent to which adverse effects on conservation values are avoided.</li> </ul>                                    |

Rule 40.4.3 Access roads and tracks which are within an identified conservation area. Matters that may be relevant in the consideration of these activities may include the following:

- |  |
|--|
| <ul style="list-style-type: none"> <li>• Relevant matters in the sections above and in the Matters for Consideration in Rule 19.28.</li> </ul>                 |
| <ul style="list-style-type: none"> <li>• The matters identified in Rule 3.5.</li> </ul>  |
| <ul style="list-style-type: none"> <li>• The extent to which the development is consistent with the guidelines in the Riverside Farm Structure Plan</li> </ul> |
| <ul style="list-style-type: none"> <li>• The extent to which adverse effects on conservation values are avoided.</li> </ul>                                    |

Rule 40.4.4 Indigenous vegetation clearance of greater than 500m<sup>2</sup> total area outside an identified conservation area and indigenous vegetation clearance inside an identified conservation area. Matters that may be relevant in the consideration of these activities may include the following:

<ul style="list-style-type: none"> <li>• Relevant matters in the sections above and in the Matters for Consideration in Rule 19.28.</li> </ul>
<ul style="list-style-type: none"> <li>• The extent to which the development is consistent with the guidelines in the Riverside Farm Structure Plan</li> </ul>
<ul style="list-style-type: none"> <li>• Reasons for the vegetation clearance.</li> </ul>
<ul style="list-style-type: none"> <li>• Effects on fauna and flora (including age, species diversity, rarity and representativeness).</li> </ul>
<ul style="list-style-type: none"> <li>• Effects on visual amenity.</li> </ul>
<ul style="list-style-type: none"> <li>• Effects on sites or features of scientific, cultural or heritage value.</li> </ul>
<ul style="list-style-type: none"> <li>• Effects on the stability of the land and the potential for soil erosion</li> </ul>
<ul style="list-style-type: none"> <li>• Effects on water bodies, including effects on water quality and the potential for flooding.</li> </ul>
<ul style="list-style-type: none"> <li>• The nature and effectiveness of measures to avoid, remedy and mitigate adverse effects.</li> </ul>
<ul style="list-style-type: none"> <li>• The effectiveness of any existing or proposed protection or enhancement mechanisms.</li> </ul>
<ul style="list-style-type: none"> <li>• The significance of the affected indigenous vegetation or habitat of indigenous fauna, in terms of the following generic criteria: <ul style="list-style-type: none"> <li>– Representativeness: i.e. contains or supports an ecosystem that is unrepresented, uncommon or unique.</li> <li>– Rarity: i.e. contains or supports threatened ecosystems, threatened species, or endemic species.</li> <li>– Diversity: i.e. contains or supports diverse ecosystems, species, vegetation.</li> <li>– Distinctiveness: i.e. its natural state, significance as a habitat.</li> <li>– Continuity: i.e. role as an ecological buffer area or corridor.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>– The extent to which an area of affected indigenous vegetation or habitat of indigenous fauna and its inter-relationship with other habitats or areas of indigenous vegetation represents or exemplifies the components of the natural diversity of a larger reference area.</li> </ul>
<ul style="list-style-type: none"> <li>• The findings of any assessment prepared by a suitably qualified expert ecologist or landscape planner, either commissioned by Council or accompanying a resource consent application.</li> </ul>

Rule 40.4.5 Activities which are not identified in Tables 19.1, 19.2 or 40.2.1, unless otherwise covered in the City-wide provisions of the Plan. Matters that may be relevant in the consideration of these activities may include the following:

<ul style="list-style-type: none"> <li>• Relevant matters in the sections above and in the Matters for Consideration in Rule 19.28.</li> </ul>
<ul style="list-style-type: none"> <li>• The extent to which the development is consistent with the guidelines in the Riverside Farm Structure Plan</li> </ul>
<ul style="list-style-type: none"> <li>• Effects on visual amenity.</li> </ul>
<ul style="list-style-type: none"> <li>• Effects on sites or features of scientific, cultural or heritage value.</li> </ul>
<ul style="list-style-type: none"> <li>• Effects on the stability of the land and the potential for soil erosion</li> </ul>
<ul style="list-style-type: none"> <li>• Effects on water bodies, including effects on water quality and the potential for flooding.</li> </ul>

- |   |
|---|
| <ul style="list-style-type: none"> <li>• The nature and effectiveness of measures to avoid, remedy and mitigate adverse effects.</li> </ul> |
|---|

## Non Complying Activities

Rule 40.5.1 Subdivision which results in:

- A larger total number of sites than 14 within the area identified as Stage 1 of the Riverside Farm Structure Plan; or
- A larger total number of sites than 4 within the area identified as Eastern Landscape Area of Stage 2 of the Riverside Farm Structure Plan; or
- A larger total number of sites 12 within the area identified as Southern Landscape Area of Stage 2 of the Riverside Farm Structure Plan; or
- A subdivision of less than the complete area of either Eastern Landscape Area or the Southern Landscape Area of Stage 2 of the Riverside Farm Structure Plan; or
- One or more lots smaller than 1 ha.

Matters that may be relevant in the consideration of these activities may include the following:

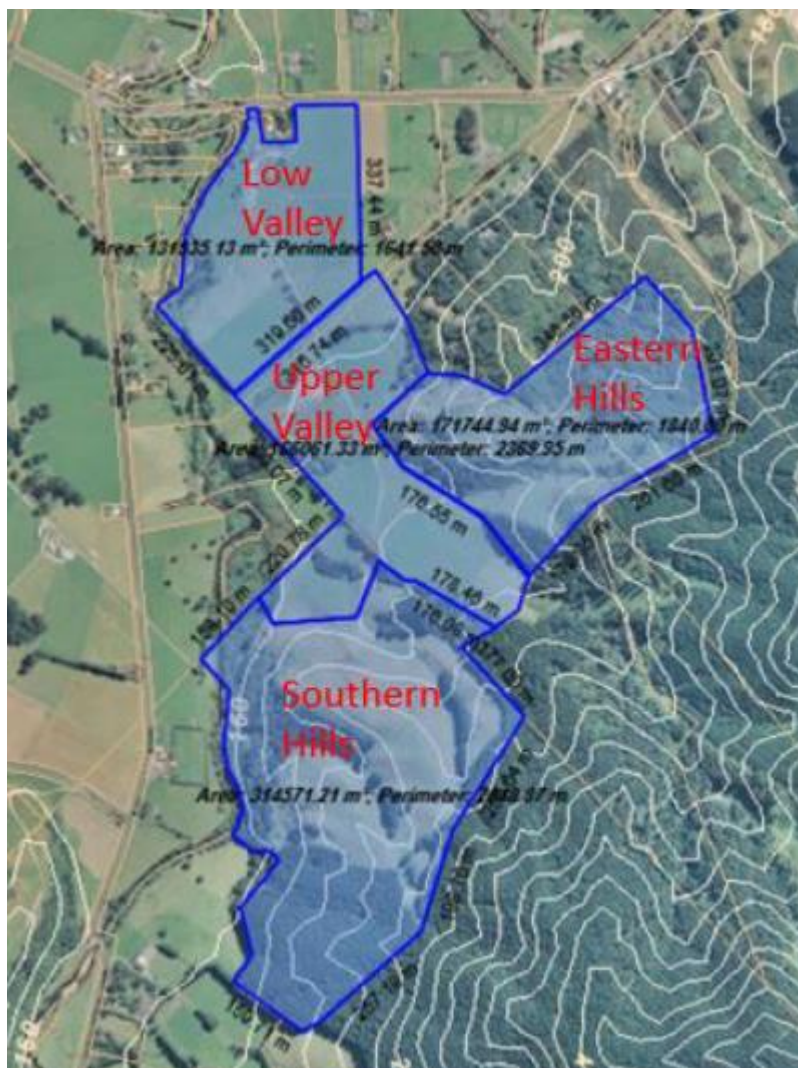
<ul style="list-style-type: none"> <li>• Relevant matters in the sections above and in the Matters for Consideration in Rule 19.28.</li> </ul>
<ul style="list-style-type: none"> <li>• That consent will only be granted in exceptional circumstances and where it can be demonstrated that the subdivision achieves the outcomes sought by Riverside Farm Structure Plan.</li> </ul>
<ul style="list-style-type: none"> <li>• The matters identified in Rule 3.1.</li> </ul>
<ul style="list-style-type: none"> <li>• The extent to which the development is consistent with the guidelines in the Riverside Farm Structure Plan</li> </ul>
<ul style="list-style-type: none"> <li>• The extent to which adverse effects on conservation values are avoided.</li> </ul>

Rule 40.5.2 Keeping animals inside an identified conservation area. Matters that may be relevant in the consideration of these activities may include the following:

<ul style="list-style-type: none"> <li>• Relevant matters in the sections above and in the Matters for Consideration in Rule 19.28.</li> </ul>
<ul style="list-style-type: none"> <li>• That consent will only be granted in exceptional circumstances and where it can be demonstrated that the activity avoids any adverse effects on the conservation area's current or potential conservation values.</li> </ul>
<ul style="list-style-type: none"> <li>• The matters identified in Rule 4.4.</li> </ul>
<ul style="list-style-type: none"> <li>• The extent to which the development is consistent with the guidelines in the Riverside Farm Structure Plan</li> </ul>

## 40.3 Guidelines.

The Riverside Farm Structure Plan has two stages and four Landscape Areas. Stage 1 Includes the Lower Valley and Upper Valley Landscape Areas. Stage 2 includes the Eastern and Southern Hills Landscape Areas. Additionally there are five conservation areas. The following guidelines address each of these areas.



### 40.3.1 Lower Valley

#### 40.3.1.1 Description

The Low Valley area forms the entrance into the Riverside Farm subdivision and is made up of the three family farm lots and the Café Lot that have an average lot size of 3.3 Ha. The lots in this precinct are relatively large creating a 'traditional' Mangaroa lifestyle appearance. The large size and flat topography provide for landscape resilience combined with the ongoing transition from production farming to lifestyle subdivision with smaller lots

Resource Consent has been granted for a café which is located approximately centrally in the Mangaroa Valley Road Frontage and set back 45m from the road.

The Café consent requires that the existing roadside plantings will be retained and enhanced with additional mature evergreen trees (2-3 metre tall) added. The proposed landscaping is intended to provide rapid screening to the parking area and the café from adjacent properties and to maintain the visual privacy of the closest residential neighbour and provide positive amenity to the site and rural environment.

#### 40.3.1.2 Intentions

- The lot configuration provided in the **Stage Plan** provides for four sites in this landscape area varying between 2 and 4.6 ha in size.

- The main landscape treatment of this landscape area relates to the formation of the access road and avenue planting along this track which will be established prior to the issue of fee simple titles to the block.
- Entrance into the Riverside Farm next to the Riverside Farm Café.
- Traditional larger 'lifestyle subdivision' lot.
- Formal Avenue and tree planting reinforcing the roadway.
- Enhancement indigenous planting along Mangaroa River.
- Screening planting along north-eastern boundary.

#### 40.3.1.3 Outcomes

- Appearance similar to existing valley floor development, with the exception of the activity hub around the café.
- Variable building forms and land uses as is typical in the area.
- Café contained in a separate block with landscaping as approved by existing consent.
- Low to medium height trees along the eastern boundary to screen views of the Riverside Farm subdivision from adjoining lifestyle dwellings.
- Building position to minimise potential flooding risk from Mangaroa River.

#### 40.3.1.4 Guidelines

When deciding on consent applications within this precinct the following guidelines apply:

- Ensure that the density of development is appropriate for the intentions of the rural valley floor zoning.
- Maintain a visual separation between neighbouring dwellings and high activity areas.
- The relationship with the adjoining neighbours to minimise visual reverse sensitivity.
- Plan for shelter and enclosure to provide privacy and shelter for the house site while maintaining solar gain and significant views.

### 40.3.2 Upper Valley

#### 40.3.2.1 Description

The Upper Valley area is grassland made up of low gradient slopes with a North West aspect. The Upper Valley is enclosed by the Eastern Hills and Southern Hills. This area is largely screened from the wider Mangaroa Valley and hence a higher density of development in this area is not readily visible. Ten sites are identified in this landscape area, with an average size of 1.6 Ha.

Vegetation cover is limited to a shelter belt of gums cross the bottom area and scattering of vegetation along a small bisecting stream. One conservation area is located in this landscape area, which with a north-eastern neighbouring property.

Access to this area is via the Lower Valley Main Road.

#### 40.3.2.2 Intentions

- Fence and protect area conservation prior to site development taking place.
- Provide for rural lifestyle development within the landscape while ensuring that appropriate rural character is maintained.
- Integrate natural elements such as the landform, SNA vegetation and watercourses into the framework of create the identity of the site.
- Natural streams, watercourses are protected and enhanced through fencing, riparian planting and exotic weed removal (where possible).

- Retain views out to the north-west to add visual amenity to the overall design of the upper valley lots.

#### 40.3.2.3 Outcomes

- Density similar to historic cluster around Wallacville Rd, Whitemans Valley Rd, Mangaroo Valley Rd intersection.
- Natural streams, watercourses are protected and enhanced through fencing and riparian planting.
- Retention conservation area through fencing and protection measures.
- Site boundaries designed to reduce visual impacts with adjoining neighbours.

#### 40.3.2.4 Guidelines

When deciding on consent applications within this precinct the following guidelines apply:

- Maintain and enhance natural streams, watercourses and indigenous vegetation (if present).
- Maintenance and enhancement of conservation areas through fencing and protection measures.
- Design buildings styles and forms to reduce their impact on the Upper Valley landscape and maintain the rural amenity.
- Locate buildings and landscape planting in a position to maximise passive solar design

### 40.3.3. Eastern Hills

#### 40.3.3.1 Description

The Eastern Hills Landscape Area is elevated with moderate to steeper slopes. There are significant views from out over Mangaroo Valley and correspondingly potential for dwellings to be very visible from the surrounding roads, dwellings and properties. Care needs to be exercised in siting buildings on the sites to integrate the earthworks, buildings and structures into the landscape.

There are two conservation area which need to be protected in this landscape area.

There is one existing farm track that can be used as one of the access roads into this landscape area.

This landscape area has been assessed as being able to accommodate four sites, without impacting on rural character and landscape values, with an average size of 4.1Ha. The identification of appropriate building platforms, and control of earthworks, building design and landscaping is essential in this landscape area.

#### 40.3.3.2 Intentions

- Avoid unnecessary disturbance of indigenous vegetation and streams.
- Fence and protect area conservation prior to site development taking place.
- Use suitable indigenous planting to connect conservation and enhance watercourses.
- Integration of the access roads, outside areas and buildings within the landscape to minimise earthworks (both volume and area).
- Design buildings with a diversity of styles with small platforms or built to intergrate with the landscape.
- Locate retaining structures and batters near buildings to minimise their visual effects

#### 40.3.3.3 Outcomes

- Natural streams and watercourses are protected and enhanced through fencing and riparian planting.



- Retention of conservation areas through fencing and protection measures prior to site development taking place.
- Building areas defined to ensure integration with the landform, separation from Conservation Areas and adjoining neighbours and maximising views out into the Mangaroa Valley.
- Design and position of the driveway, buildings and outdoor living to minimise earthworks and retaining structures.
- Use of landscape planting on batter slopes, around and behind the buildings to integrate any building structures into the landscape.
- Variations of house styles, and forms integrating the buildings into the landscape.
- Low profile buildings located on a small platform and designed to sit into the landscape or a collection of similarly designed smaller building forms with similar materials arranged up or down a slope.
- Darker non-reflective building materials textures and colours absorb buildings into the surrounding rural landscape.
- Building position and landscape planting to maximise passive solar gain.

#### 40.3.3.4 Guidelines

When deciding on consent applications within this precinct the following guidelines apply:

- Maintain and enhance natural streams, watercourses and indigenous vegetation (if present).
- Maintenance and enhancement of conservation areas through fencing and protection measures.
- Minimise the visual dominance of the buildings and earthworks, through controls over:
  - Site design,
  - The size of building platforms,
  - Location, form, materials, textures and colour, reflectivity, exterior lighting of buildings,
  - Landscape treatment.
- Ensure the position and design of the driveway, buildings, structures and outdoor living areas to follow the lie of the land to minimise earthworks and retaining structures.
- Consider low profile buildings located on a small platform and designed to sit into the landscape or a collection of similarly designed smaller building forms with similar materials arranged up or down a slope.
- Consider darker non-reflective building materials textures and colours to complement be absorbed into the surrounding rural landscape.
- Place buildings and landscape planting in a position to maximise passive solar design.
- Stormwater from hardstand areas, buildings, (storage overflow), and any earthworks to be carefully controlled, ideally passing through areas of natural filtration and into roadside drains, sediment retention ponds, decanting detention ponds, and established watercourses. Some periodic maintenance will be required of such systems.
- Re vegetation and screen planting of new / upgraded roads to reduce impact of cut faces.

#### 40.3.4 Southern Hills

##### 40.3.4.1 Description

The Southern Hills landscape area is rolling with moderate to steeper slopes. There are significant views from out over Mangaroa Valley and correspondingly potential for dwellings to be very visible

from the surrounding roads, dwellings and properties. The complex topography of this Landscape Area means that there is the potential to provide for a relatively dense subdivision without giving an visual impression of a density level greater than that in the surrounding area.

Care needs to be exercised in siting buildings on the sites to integrate the earthworks, buildings and structures into the landscape.

The southern part of this area has been used for plantation forestry which has been recently harvested.

There are two conservation areas which need to be protected in this landscape area.

This landscape area has been assessed as being able to accommodate twelve sites, without impacting on rural character and landscape values, with an average size of 2.4 Ha. The identification of appropriate building platforms, and control of earthworks, building design and landscaping is essential in this landscape area.

There are existing farm and forestry tracks that can form the basis for access roads.

Twelve lots are located in this area with an average size of 2.4 Ha. The lots at a lower elevation close to the Upper Valley precinct are smaller with the remaining higher elevation lots with greater gradient being generally more than 2Ha.

#### 40.3.4.2 Intentions

- Riparian edge of Mangaroa River fenced and protected prior to site development taking place to avoid unnecessary disturbance to the river edge and existing native trees.
- Natural streams, watercourses are to be protected and enhanced through fencing, riparian planting and exotic weed removal (where possible).
- Use suitable indigenous planting to connect native vegetation and enhance watercourses.
- Integration of access roads, outside areas and buildings within the landscape to minimise earthworks (both volume and area).
- Building areas defined to ensure integration with the landform, separation from the Conservation Areas and adjoining neighbours.
- Design buildings with a diversity of styles with small platforms or built to integrate with the landscape.
- Locate retaining structures and batters near buildings to minimise their visual effects.

#### 40.3.4.3 Outcomes

- Mangaroa River edge and watercourses are protected and enhanced through fencing and riparian planting.
- Retention of native vegetation through fencing and protection measures prior to site development taking place.
- Protect Conservation Areas through fencing and other protective measure prior to site development taking place.
- Design and position of the driveway, buildings and outdoor living to minimise earthworks and retaining structures.
- Use of landscape planting on batter slopes, around and behind the buildings to integrate any building structures into the landscape.
- Variations of house styles, and forms integrating the buildings into the landscape.

- Low profile buildings located on a small platform and designed to sit into the landscape or a collection of similarly designed smaller building forms with similar materials arranged in up or down a slope.
- Darker non-reflective building materials textures and colours absorb buildings into the surrounding rural landscape.
- Building position and landscape planting to maximise passive solar gain.

#### 4.3.4.4 Guidelines

When deciding on consent applications within this precinct the following guidelines apply:

- Maintain and enhance natural streams, watercourses and indigenous vegetation.
- Maintain and protect Conservation Areas through fencing (where practical) and other protective measures prior to site development taking place.
- Minimise the visual dominance of the buildings and earthworks, through controls over:
  - Site design,
  - The size of building platforms,
  - Location, form, materials ,textures and colour, reflectivity, exterior lighting of buildings, Landscape treatment.
- Consider using landscape planting on batter slopes around and behind buildings to anchor structures into the landscape and reduce the visual dominance of the buildings and earthworks.
- Ensure the position and design of the driveway, buildings, structures and outdoor living areas to follow the lie of the land to minimise earthworks and retaining structures.
- Consider low profile buildings located on a small platform and designed to sit into the landscape or a collection of similarly designed smaller building forms with similar materials arranged up or down a slope.
- Consider locating buildings and landscape planting in a position to maximise passive solar design.
- Place buildings and landscape planting in a position to maximise passive solar design.
- Stormwater from hardstand areas, buildings, (storage overflow), and any earthworks to be carefully controlled, ideally passing through areas of natural filtration and into roadside drains, sediment retention ponds, decanting detention ponds, and established watercourses. Some periodic maintenance will be required of such systems.
- Re vegetation and screen planting of new / upgraded roads to reduce impact of cut faces.

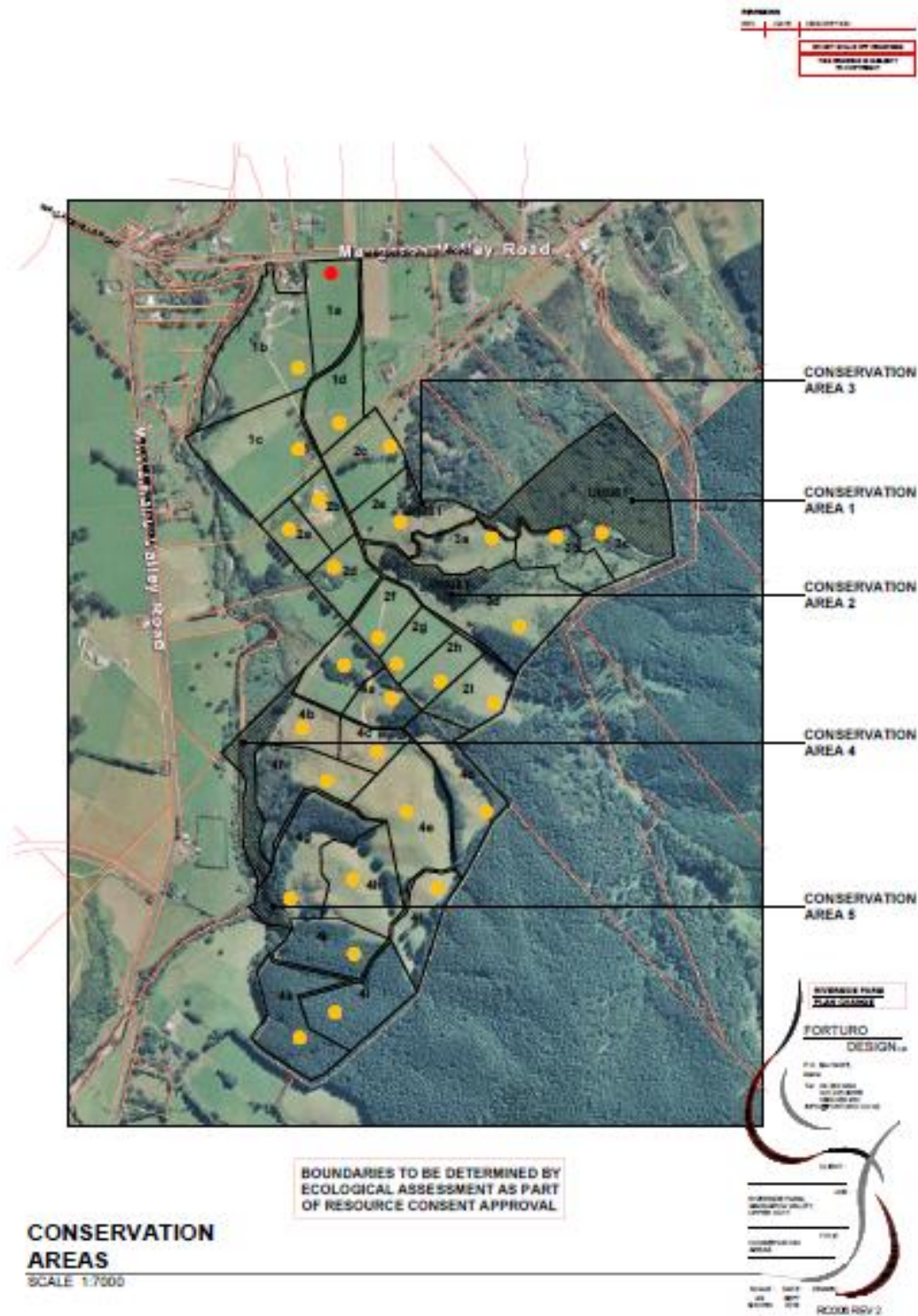
#### 4.3.5 Conservation Areas

Five Conservation Areas have been identified with ecological values that merit ongoing conservation. The extent, boundaries and management of these areas will be determined as part of the subdivision of sites which include these areas.

Additionally the riparian margins of watercourses running through the site and the riparian edge of the Mangaroa River are considered to have conservation values.

The northern part of the Mangaroa River adjacent to the Lower valley Precinct is already protected by an esplanade reserve. Additional minor boundary planting is proposed prior to development of this precinct.

The Mangaroa River flows through the property for a stretch adjacent to the Southern Hills precinct. Management of this stretch of the river and the identified conservation areas is addressed below.



#### 4.3.5.1 Conservation Area 1

##### 4.3.5.1.1 Description

This Area is Located within the Eastern Hills Ecological Area. This area is a 7Ha area of mid stage regenerating forest which is part of a larger indigenous forest spread over part of the six adjoining lots to the north east and west. The forest is diverse with a wide range of typical broadleaf species and occasional podocarps. There are some emergent beech. The forest remnant within the property is fenced and the quality is a deliberate result of the current farm management.

Little evidence of browse is evident, possums have been well controlled as part of wider area programmes. Red and fellow deer, goats and pigs are present in the area.

The bulk of the area does not appear to be heavily influenced by invasive plant species, but the edge close to grazing land is at an earlier seral stage and does have significant weed elements.

Overall the conservation value of this SNA is assessed as being moderate to high.

##### 4.3.5.1.2 Extent of Protection

A covenant will be registered over this area as part of the subdivision of the Eastern Hills Landscape Area. This may include planting a buffer edge.

The proposed covenant may provide for the use of the existing farm track establishment and maintenance of an access track and a building platform/curtilage area in a specified location.

Provision will also be made for a walking track broadly around the circumference of the SNA with access rights for Riverside Farm Residents.

Beyond these provisions the purpose of the covenant is to ensure the active protection of the SNA. Through weed control, pest control and enhancement planting.

##### 4.3.5.1.3 Intentions

- Provide for active protection of the SNA, both in terms of weed control and pest control.
- Allow for the use of the existing farm track to provide access to a building platform located outside the Conservation Area.
- Allow for a walking track around the perimeter of the SNA.
- Avoiding activities in the conservation area (other than the access and walking tracks) that are detrimental the maintenance and enhancement of the conservation values.
- Ensure that development adjacent to the Conservation Area does not compromise the values of the area.

##### 4.3.5.1.4 Outcomes

- Conservation values are maintained and enhanced.
- Local (Riverside Structure Plan residents) community involvement through the walking track.
- The opportunity to participate in wider conservation activities if these occur outside the structure plan boundary.

##### 4.3.5.1.5 Guidelines

When considering applications for resource consents involving, or adjacent to the conservation area the following guidelines will be relevant:

- The Conservation Area should be contained within a single title.
- Activities within the Conservation Area which will enhance the conservation value will be encouraged.

- For activities within the conservation area that will adversely affect its values, consent will only be granted in exceptional circumstances.
- For activities adjacent to a Conservation the potential of any activities to adversely affect conservation values in the surrounding area.

The SNA cannot provide active protection and enhancement of this area as it is not possible to protect the river boundary of the area and there are no corresponding covenants for adjoining riparian areas.

#### 4.3.5.2 Conservation Area 2

##### 4.3.5.2.1 Description

This area is a 1.3 Ha remnant stand of mature red beech. The Stand is isolated and is approximately 88m from the nearest contiguous forest stand. The Conservation Area is located in the Eastern Hills Landscape Area.

The area is not fenced and has been grazed for many years. The beech trees are showing signs of senescence. The undergrowth is of poor quality and dominated by weed species such as blackberry and barberry.

Overall the conservation value of this area is assessed as being low in its current state but with the potential to be moderate with appropriate management.

##### 4.3.5.2.2 Extent of Protection

A covenant will be registered over the remnant forest area, a 5 m buffer around the northern boundary and 10m boundary around the remainder. The covenant area may also include an additional 0.5ha corridor incorporating scattered regeneration to form a corridor joining with conservation Area 1.

Fencing and registration of the covenant will be undertaken prior to development of the Eastern Hills Landscape Area.

Beyond these provisions the purpose of the covenant is to ensure the active protection of the Conservation Area. Through pest control and enhancement planting.

##### 4.3.5.2.3 Intentions

- Fence Conservation Area plus buffer area to exclude stock and allow for edge protection.
- Plant buffer area to exclude lateral light penetration of forest area.
- Fence corridor area.
- Prohibiting activities in the covenant area that are detrimental the maintenance and enhancement of the conservation values of the site.
- Design layout and building locations around a cohesive vegetation framework and topography and avoid encroaching on important ecological systems.

##### 4.3.5.2.4 Outcomes

- Conservation values are enhanced.
- Exclusion of stock from SNA.
- Buffer vegetation to reduce lateral light penetration to control invasive plant species.

- Connection to adjacent SNA areas.
- The opportunity to participate in wider conservation activities if these occur outside the structure plan boundary.

#### 4.3.5.2.5 *Guidelines*

When considering applications for resource consents the following guidelines will be relevant:

- The Conservation Area should be contained within a single title.
- Activities within the Conservation Area which will enhance the conservation value will be encouraged.
- For activities within the conservation area that will adversely affect its values, consent will only be granted in exceptional circumstances.
- For activities adjacent to a Conservation the potential of any activities to adversely affect conservation values in the surrounding area.

### 4.3.5.3 Conservation Area 3

#### 4.3.5.3.1 *Description*

This Conservation Area is a 0.2 Ha area of mature red beech. It forms part of a larger area of beech forest on an adjacent property which is not formally protected. The Conservation Area is located in the Upper Valley Landscape Area

The area of trees on the structure plan site is not fenced and has been grazed for many years. The beech trees are showing signs of senescence. The undergrowth is of poor quality and dominated by weed species such as blackberry and barberry. The adjacent forest is of better quality.

Overall the conservation value of this Conservation Area is assessed as being low in its current state and will remain of low value unless active protection of both this stand and the larger adjacent forest area is undertaken.

It is however possible to improve the area with the structure plan site.

#### 4.3.5.3.2 *Extent of Protection*

A covenant will be registered over the remnant forest area, and a 5 m buffer around the boundary.

Fencing and Registration of the covenant will be undertaken prior to issue of title for the lot containing this area.

Beyond these provisions the purpose of the covenant is to ensure the active protection of the Conservation Area through fencing, weed control, pest control and buffer planting.

#### 4.3.5.3.3 *Intentions*

- Fence area plus buffer area to exclude stock and allow for edge protection.
- Plant buffer area to exclude lateral light penetration of forest area.
- Stopping activities in the covenant area that are detrimental the maintenance and enhancement of the conservation values of the site.
- Design layout and building locations in the adjacent area to avoid compromising the ecological values of this area.

#### 4.3.5.3.4 *Outcomes*

- Conservation values are maintained.
- Exclusion of stock from area.

- Buffer vegetation to reduce lateral light penetration to control invasive plant species.
- The opportunity to participate in wider conservation activities if these occur outside the structure plan boundary.

#### 4.3.5.3.5 Guidelines

When considering applications for resource consents the following guidelines will be relevant:

- The Conservation Area should be contained within a single title.
- Activities within the Conservation Area which will enhance the conservation value will be encouraged.
- For activities within the conservation area that will adversely affect its values, consent will only be granted in exceptional circumstances.
- For activities adjacent to a Conservation the potential of any activities to adversely affect conservation values in the surrounding area.

### 4.3.5.4 Conservation Area 4

#### 4.3.5.4.1 Description

This area consists of a triangle of land of 1 Ha in area on the western side of the Mangaroa River. It is part of the Southern Hills Landscape Area. The area is not an esplanade area as it is of varying distance from the river and in parts is more than 20m from the river. It is however almost entirely riparian in character. The area is dominated by weed species, with early seral indigenous regrowth. The site is most very steep.

The Area is on the west side of the existing farm track and is fenced off from the remainder of the plan change area. It is not however, but is not fenced on its river boundary.

The conservation value of this area is identified as moderate primarily through its riparian location. The value could improve as part of a wider riparian conservation initiative with neighbouring properties.

#### 4.3.5.4.2 Extent of Protection

Registration of the covenant will be undertaken prior to development of the Southern Hills Landscape Area.

The proposed covenant cannot provide active protection and enhancement of this area as it is not possible to protect the river boundary of the area and there are no corresponding covenants for adjoining riparian areas.

No grazing, or motorised vehicle access will be allowed within the area unless required for river protection works.

Indigenous vegetation will be retained

#### 4.3.5.4.3 Intentions

Covenant to be registered prior to issue of any certificates of title for the Southern Hills Precinct.

- Stock excluded [from within structure plan area]
- Indigenous Vegetation retained.
- Opportunity for future vegetation enhancement



- Opportunity to cooperate with future co-ordinated riparian conservation efforts.

#### *4.3.5.4.4 Outcomes*

- Riparian vegetation retained and enhanced.
- New protected area in Mangaroo Valley.
- Opportunity for wider riparian conservation maintained.

#### *4.3.5.4.5 Guidelines*

- The Conservation Area should be contained within a single title.
- Activities within the Conservation Area which will enhance the conservation value will be encouraged.
- For activities within the conservation area that will adversely affect its values, consent will only be granted in exceptional circumstances.
- For activities adjacent to a Conservation the potential of any activities to adversely affect conservation values in the surrounding area.

### *4.3.5.5 Conservation Area 5*

#### *4.3.5.5.1 Description*

This area is a 0.4 Ha area of healthy, regenerating black beech adjacent to Conservation Area 4. The area includes a riparian margin, but extends approximately 60m from the edge of the river.

The area is considered to be a separate conservation area due to the higher ecological value and the potential for more active management. It is part of the Southern Hills Landscape Area.

These trees are not fenced and are vulnerable to grazing. Overall the conservation value of this SNA is assessed as being moderate in its current state and will remain of moderate value unless active protection of both this stand and the adjacent riparian area is undertaken.

#### *4.3.5.5.2 Extent of Protection*

Registration of the covenant will be undertaken prior to development of the Southern Hills Landscape Area.

Fencing and Registration of the covenant will be undertaken prior to issue of title for the lot containing this area.

Beyond these provisions the purpose of the covenant is to ensure the active protection of the Conservation Area through fencing, weed control, pest control and buffer planting.

No grazing, or motorised vehicle access will be allowed within the area unless required for river protection works.

Indigenous vegetation will be retained

#### *4.3.5.5.3 Intentions*

Covenant to be registered prior to issue of any certificates of title for the Southern Hills Precinct.

- Stock excluded [from within structure plan area]
- Indigenous Vegetation retained.
- Opportunity for future vegetation enhancement

- Opportunity to cooperate with future co-ordinated riparian conservation efforts.

#### 4.3.5.5.4 Outcomes

- Vegetation retained and enhanced.
- New protected area in Mangaroa Valley.
- Opportunity for wider riparian conservation maintained.

#### 4.3.5.5.5 Guidelines

- The Conservation Area should be contained within a single title.
- Activities within the Conservation Area which will enhance the conservation value will be encouraged.
- For activities within the conservation area that will adversely affect its values, consent will only be granted in exceptional circumstances.
- For activities adjacent to a Conservation the potential of any activities to adversely affect conservation values in the surrounding area.

### 4.3.5.6 Streams

#### 4.3.5.6.1 Description

There are several small permanent and ephemeral streams on the property. The beds and margins of these streams are not currently protected and stock mostly have direct access to them. It is proposed to remedy this as part of the structure plan.

#### 4.3.5.6.2 Intentions

- Retain and restore watercourses, streams and wetlands by planting stream banks and wetlands in suitable indigenous species
- Retain existing vegetation, including mature exotic vegetation in appropriate locations
- Seek the assistance of an ecologist to identify the most appropriate method to restore a stream or wetland
- Use indigenous planting to connect areas and enhance watercourses and wetlands to form vegetation corridors
- Ensure any water flowing into streams from developed areas passes through structures, (typically ponds and wetlands), which remove sediment and trace contaminants and detain peak flows so that additional erosion / flooding impacts are minimised.

#### 4.3.5.6.3 Outcomes

- Stream banks and wetlands protected from trampling and grazing.
- Stream banks and wetlands planted with suitable indigenous species.
- Downstream water quality enhanced.

#### 4.3.5.6.4 Guidelines

When deciding on consent applications within this precinct the following guidelines apply:

- Activities within the riparian margins of streams will only be granted consent if they are necessary in order to provide access, or to achieve the intent and outcomes for this area.
- Activities adjacent to the riparian margins of streams should not be granted consent if they adversely affect the maintenance of those margins.

- Where roads need to traverse streams, culverts with ample capacity to be utilised with road surface above stream flood levels.

### 4.3.7 Riverside Farm Roding Typologies

#### 4.3.7.1 Description

Access to the structure plan area is by a single-entry point from Mangaroa Valley Rd at the east boundary of the property. This access will also serve the café. There will be only one lot with direct access to Mangaroa Valley Rd, which is accessed close to the West boundary of the structure plan area.

All accesses in the structure plan area will be private roads.

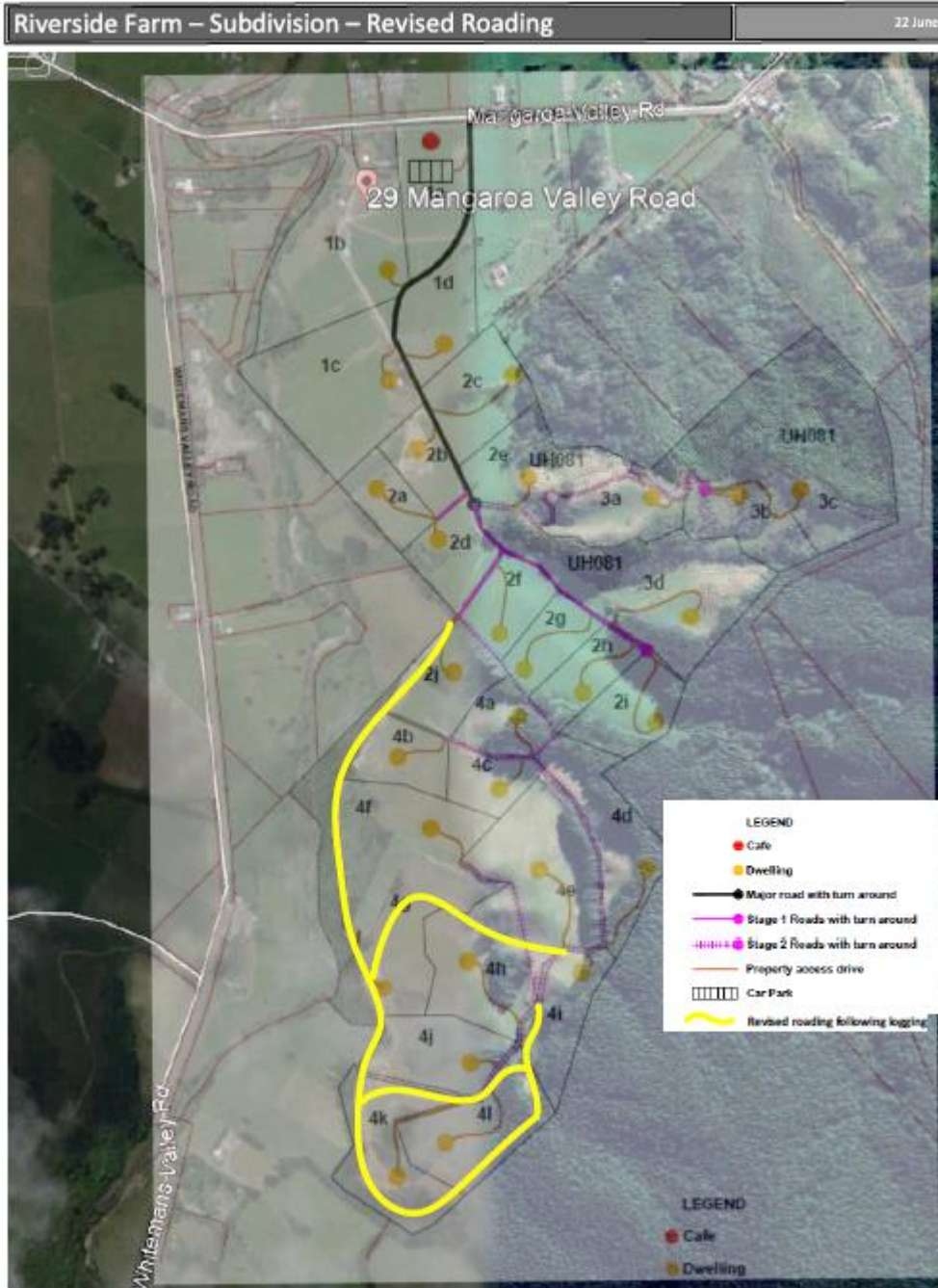
The access road follows the eastern boundary of the structure plan area for approximately 180m and then turns southwards for approximately 100m into the property to provide a buffer from the dwelling at #52 Mangaroa Valley Rd. It then travels approximately centrally through the property for 300m before splitting into separate access roads servicing the Upper valley, Eastern Hills, and Southern Hills Landscape Area.

Roding typology is identified in the stage plan for Stage 1 of the Structure Plan. The road position and typology used for stage 2 will be determined as part of the consenting process, with indicative typologies provided below.

Figure 15 below shows the proposed roding layout. There are three different access typologies:

- Major Roads that act as the primary access for more than fifteen properties.
- Minor Roads acting as the primary access for between two and twelve properties.
- Individual accesses providing private access for an individual lot.

In conjunction with the roding, 5 stream crossings will be required, either as new or upgraded. Typically, these are intended to be designed utilising reinforced concrete culverts, with appropriate hydraulic design to accommodate at least a 1:100-year storm event on the upstream catchment, and including a reinforced (concreted), road surface on the crossing to ensure that overflow in more extreme events did not create washout. Where they meet the black (sealed) road, they would need to be sealed or otherwise surfaced for the last 10m or so.



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Figure 18. Proposed roading layout.

#### 4.3.7.2 Major Road

##### 4.3.7.2.1 Function

Servicing up to 30 properties plus, the cafe, this road needs to meet a capacity 300 vehicle movements per day on that road generated by the subdivision alone, plus significantly more for the short section to the cafe.

Access will be limited beyond the Café carpark to residents and associates.

The major road section will extend for approximately 700m from Mangaroa Valley Rd

#### *4.3.7.2.2 Capacity*

The design capacity of the Major Rd is 1000vpd

#### *4.3.7.2.3 Formation*

The Major Rd road shown in black will be sealed, constructed to accepted standards to provide a reasonable pavement design life, and be 7m wide, 6m carriageway width.

Design and construction of stream crossings will be in accordance with GWRC consents.

#### *4.3.7.2.4 Landscaping*

The Major Road is located on flat and or very slightly sloped areas with essentially only surface earthworks being undertaken. There is therefore no need for landscaping to screen earthworks. The 700m length of Major Rd will be developed as an avenue with specimen trees planted on either side of the road. The area around the stream crossing will be included within the riparian vegetation plantings.

### **4.3.7.3 Minor Road**

#### *4.3.7.3.1 Function*

There are four Minor Roads each servicing a different area. The middle and upper part of the Upper Valley, and the Eastern and Southern landscape areas. Each of these Roads provide access to different numbers of properties (2 -15) and pass through different topography's. The design and standard of roads for stage two will be finalised as part of the consent process.

The formation standard for th for stage two will be will service between 2 to 15 properties with corresponding capacities and design requirements.

#### *4.3.7.3.3 Capacity*

The design capacity of minor roads is 300vpd.

#### *4.3.7.3.3 Formation*

The Minor Roads in Stage 1 will have a min 3m carriage width with passing bays every 100m and a turning Circle at the end. These roads traverse gently sloping land and will have a gravel surface.

#### *4.3.7.3.4 Landscaping*

The Minor Roads in Stage 1 are visibly prominent and do not require Landscaping.

Landscaping of Minor Roads will be considered as part of the consent process. The following guidelines apply:

- Minimise the visual dominance of the roads and associated earthworks, through controls over:
  - route,
  - Design and location of earthworks,
  - The standard of formation,
  - Landscape treatment of visible areas.

- Landscape treatment on cut areas and batter slopes to reduce the visual dominance of earthworks.
- Where possible and practicable ensure the position and design of the follows the lie of the land to minimise earthworks and retaining structures.
- Where possible and practicable utilise existing farm tracks and forestry roading.

#### 4.3.7.4 Property Access Drives

The first 10m of the property access drives will be sealed / concreted prior to issue of titles. It will be the land owner's responsibility to construct the site access road from that point to the proposed dwelling and or site of other on lot buildings and activities.

As a minimum, on property access roads should be formed and metalled to produce a hard-wearing surface and to discourage erosion. Roads should be sloped with cross fall to at least one perimeter swale drain, which, depending on site conditions may connect to a drainage system on the access road or if suitable may dissipate collected drainage waters within the property.

The location and formation of access drives in Stage 2 will require individual engineering and landscape design as part of the consent approval process.

### 4.3.8 Flood Management

#### 4.3.8.1 Description

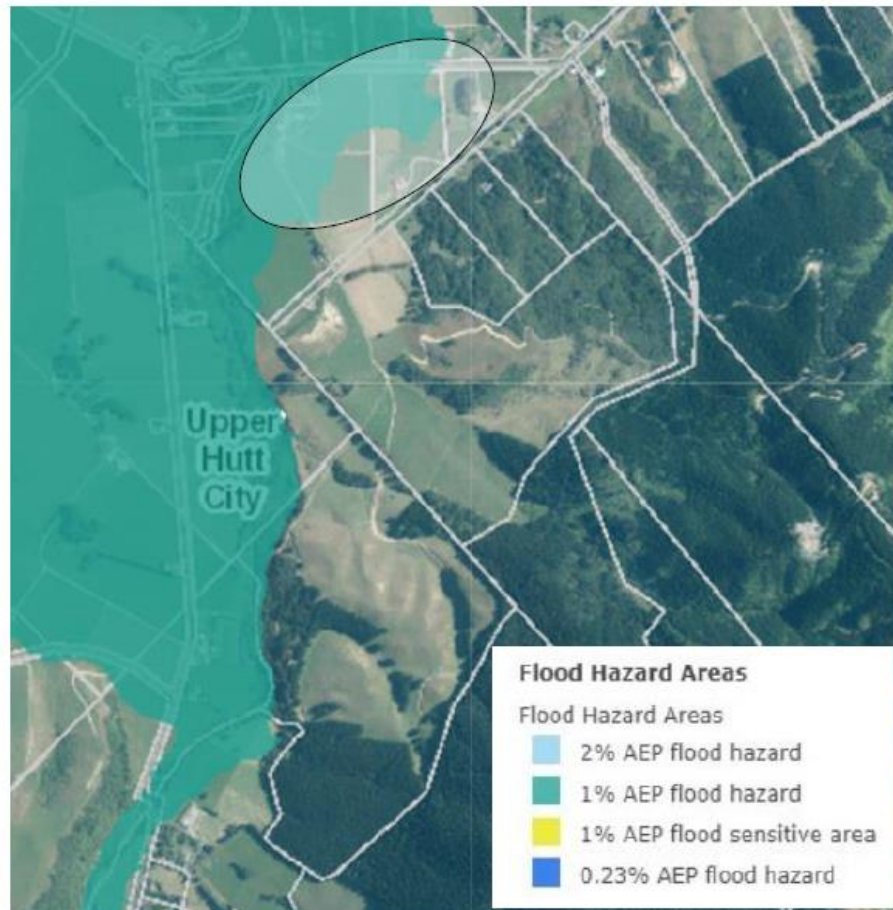
The Lower Valley is identified to be at risk from flooding in the 1% (1/100-year ARI) event [assuming PC 42 is confirmed]. This is a sufficiently frequent event that it needs to be given consideration with respect to development of these sections. The potential flooding map which accompanies PC42 identifies most of the flood hazard area (other than very close to the river bank), as being ponding areas.

Preliminary assessment confirms that dwellings and other infrastructure can be safely developed on these sections using normal engineering measures such as ensuring the dwellings are developed with sufficient clearance above flooding levels.

District Plan requirements require consent for all buildings on these lots. This will provide for appropriate management of any risks. [assuming PC 42 is confirmed].

There is no GIS sourced information regarding flooding on the small tributary streams which pass through the property, however, given their relatively steep gradient and defined channels it is extremely unlikely that a high intensity event would result in anything more than a short-term modest increase in the wetted margins of these streams, (as opposed to widespread flooding), and some localised increase in sediment transport. The stream channels and margins are relatively stable and do not appear to be aggrading or degrading to any marked degree.

Access roads have the potential to increase the severity of flood peaks in the lower parts of these stream and to produce localised erosion. Dwellings and other buildings will typically collect the majority of rainwater falling on roofs and hence will not add to storm peaks. Building consents are an appropriate way to manage storm water from dwellings with a focus on stormwater neutrality and minimising erosion and sediment transport.



*Figure 9. Zone on the northern river flats which is claimed to be susceptible to flooding in the 1% AEP event.  
Source GW GIS Flooding Map.*

#### 4.3.8.2 Intentions

Flood attenuation for the overall site will be achieved through the use of wetlands/ ponds, underground storage devices and increased onsite ponding/flooding. The proposed storage must cater for the storage required for flow attenuation for the increased runoff resulting from development of the site for all storms up to the 10% AEP event including allowance for climate change effects.

#### 4.3.8.3 Outcomes

Subdivision and site development does not result in hazards on site or for the wider community.

#### 4.3.8.4 Standards

Current district plan provisions are adequate to manage any flooding risks from the Mangaroa River. [assuming PC 42 is confirmed].

Provisions requiring flood attenuation for subdivisional development are included within the rules for subdivision approval.

### 4.3.9 Wind

#### 4.3.9.1 Description

A factor to be considered in the development of the more exposed elevated lots is the wind zoning and the concern that the more exposed proposed building sites may exceed conventional NZS 3604 limits of extra high wind zoning – 55m/s. As can be seen from the wind zoning maps below, the site is inside zone A, and is also outside any lee zones. Preliminary engineering assessment did not identify any specific areas on the site which would represent wind channels creating localised elevated wind speeds in excess of those calculated under NZS 3604 or NZS 1170.

Most of the proposed subdivision area is shown as High under the Upper Hutt City Council wind zoning map with the more elevated land as SED (specific engineering design), although Council advise that these zones are indicative only and recommend that specific assessments be undertaken for all lots either using the methodology of NZS 3604 or for the more demanding sites - NZS 1170.



Figure 13. Regional wind zoning and site location.

Within zone A, the maximum zoning likely is for sites on ridge tops, exposed to NE / SW winds, where the wind approach gradient is steep ((greater than 0.2), and the site context is open ground roughness and exposed. Under NZS 3604, this gives a wind zone designation of EH. This will potentially require additional weatherproofing and construction detailing (fixings, studs, truss spacing etc, but is still within the bounds of conventional designs and codes such as 3604. Using NZS 1170 specific zoning calculations may even reduce the rating on some of these sites to VH.

Therefore, wind zoning and the ability to construct “standard” buildings on all sites does not represent a constraint to the proposed subdivision.



#### 4.3.9.2 Intentions

With appropriate building location site selection, i.e. not sitting immediately on top of the most exposed ridge on the individual lots, it is therefore considered that most of the building sites proposed will fall in the H to VH range with some possibly extending to EH. Defining building areas for the Eastern and Southern Hill Precincts avoids placing buildings in more vulnerable areas.

#### 4.3.9.3 Outcomes

Buildings are sited in areas where any wind hazard can be managed.

#### 4.3.9.4 Standards

For sites within Stage 2 this potential hazard can be managed by building consent approval.

If consent is sought to place a building outside the defined building site then wind hazard is identified as a matter of discretion.

### 4.3.10 Earthworks and Land Stability

#### 4.3.10.1 Description

A review of the Greater Wellington GIS database, and initial engineering assessment have not identified any significant land stability issues. No slips or slip scarps are shown on the database and tracks which have been in place for many decades have shown little if any signs of ongoing cut slope instability.

In the steep areas of the hill sections where the slope is in excess of 30°, there have been some very limited and localised signs of surface erosion, probably created by stock activity. A review of aerial photographs dating back to the 1940s did not show any signs of long-term erosion when comparing those to current aerial photographs.

#### 4.3.10.2 Intentions:

Earthworks required to support the proposed development will be relatively limited and related to roading requirements, and development on individual sites.

Mixed soil materials are proposed to be used as earthworks fill. These should be tested to determine suitability and appropriate cut and fill batter slopes. Such testing will be conducted once earthworks commence and a suitable quantity of proposed fill material is able to be obtained from site

#### 4.3.10.3 Outcomes

Buildings are appropriately sited, and platforms are stable.

Roads are appropriately sited, are stable and do not require excessive management.

#### 4.3.10.4 Standards

Generally, the rules and standards of Chapter 23 provide appropriate management

As a general guide, cut slopes in the surface clay soils on the steeper hill country should be limited to a gradient of 1:1 for road and access track construction purposes, and 1V:2Hz for excavations related to dwellings and structures.

NZ standard compaction tests as per NZS4402:1986 shall be conducted to determine the engineering parameters such as optimal moisture content relative to density and compacted strength for onsite control.

The subsoil material identified on-site is considered suitable fill material however further testing will be required to obtain optimum moisture content as identified while testing compacted material. It is

recommended that where filling works are to be carried out the following standard is utilized to control the earthworks:

- NZS 4431: 1989, Earth Fill for Residential Purposes.

And the following minimum testing/supervision works are undertaken:

- Inspection of earthworks, specifically, site stripping, benching, placement and compaction.

The subsoil material identified on-site is considered suitable fill material however further testing will be required to obtain optimum moisture content as identified while testing compacted material. It is recommended that where filling works are to be carried out the following standard is utilized to

#### *4.3.10.5 Guidelines*

When considering applications for resource consents involving earthworks the following guidelines will be relevant:

- Benches should be cut in any cut batters over 6 metres in height, at intervals of not greater than 4 metres
- Benches should be not less than 1.2 metres in width, and grade back to the batter face at 1 in 10. The benches should have longitudinal grades of not less than 1 in 100, and provision to collect and discharge the stormwater run-off in an acceptable manner, e.g. via batter toe dams.
- All fill batter slopes shall be no steeper than 1V to 1.5H with a bench of a minimum width of 2 metres every 6 metres of vertical height, with a fall inwards of 1 in 10 and longitudinally along the bench of 1 in 100 minima to 1 in 20 maximum discharging to a point clear of the filling in such a manner as to prevent scouring.
- The top or toe of the batter shall be at least 3 metres from a boundary or building. This is in accordance with NZS4431: 1989 Code of Practice for Earth Fill for Residential Development.
- Grading and compaction requirements for fill batters should be on a site-specific basis but the general fill placed on sloping ground should be well compacted on benched land, (not placed directly over sloping ground), utilising moisture content control as required, and vibrating or sheep's foot rollers as appropriate to the specific material.
- Where earthworks (either in the form of dams for stormwater detention or general filling works) impede the flow of natural drainage, consideration of appropriately designed culverts and scour protection needs to be undertaken. This may incorporate culvert headwalls; pipe hydraulic design and inlet and outlet scour protection as necessary.

### *4.3.11 Site Drainage*

#### *4.3.11.1 Description*

Initial engineering assessment has identified that the site is generally well drained and only localised areas have drainage problems. There are some locations where some channelling / culverting needs to be put in to collect water which is spreading over a wide area or is causing instability on existing tracks. Small areas in the Southern Hills Landscape area also have drainage limitations.

#### *4.3.11.2 Intentions*

Roading design for main and minor roads do either not cross poorly drained areas or where they do, they assist with area drainage. Areas where poor drainage would limit suitability for building sites can easily be addressed through the Consents for Stage 2.

#### 4.3.11.3 Outcome

Sub divisional and roading design will avoid most of potential drainage issues with site development.

Defined building areas as part of Stage 2 consents will avoid potential issues with site development on those sites which have such issues.

Consideration of site drainage will be included in consents where development occurs outside defined building areas.

#### 4.3.12 Drinking Water

##### 4.3.12.1 Description

No reticulated water supply is proposed for the development, therefore potable and other water provisions for individual lots will need to be from roof storage. Typically, storage provisions acceptable to the council and in use throughout the valley have been in the range of 50 to 90 m<sup>3</sup>. In case of an unusually long dry period, deliveries via water cart are available, albeit at a significant cost, (currently approximately \$300 for 10 m<sup>3</sup>).

Some properties have streams, (either permanent or ephemeral), flowing through them, and there are permitted activity provisions in both the current and proposed relevant regional plans for individual property owners to take a modest quantity of water per day from available surface and ground water resources. The only groundwater which could potentially be available will be for the limited number of sections in the Lower Valley Landscape Area, however several other properties may at times be able to access stream water.

Looking to the future, the NIWA predictions for climate change effects on the region are documented and shown in GW's GIS database. Figure 16 below shows the predicted increase in the hot days per year (defined as greater than 25°C), for the period 2030 to 2050, under the scenario whereby greenhouse gas levels are moderately restricted.

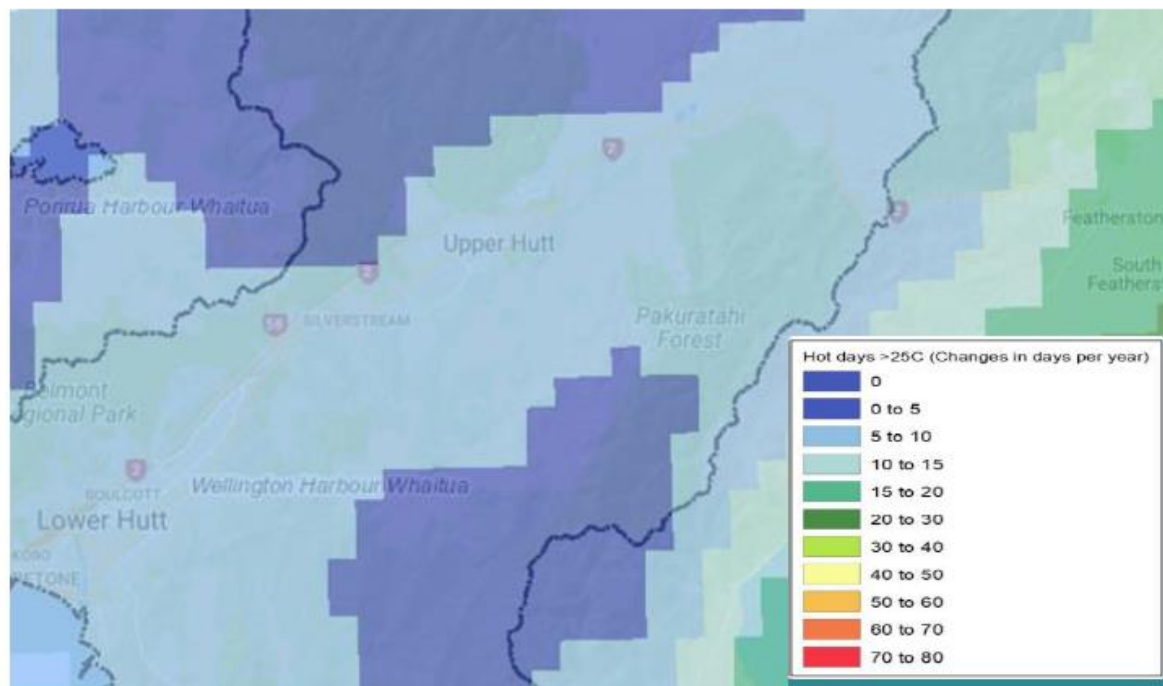


Figure 16. Predicted increase in number of hot days per year - 2030 to 2050 - source GW GIS database.

This identifies that in the proposed subdivision area, under the most likely greenhouse gas scenario, there will be a modest increase in the order of 5 to 15 “hot” days per annum, with associated reduction in available water and demand for water for basic domestic needs.

#### *4.3.12.2 Intentions*

Ensure that adequate water storage is provided for each dwelling approved in order to meet normal use levels.

#### *4.3.12.3 Outcomes*

Accordingly, it would appear prudent to specify a minimum of 90 m<sup>3</sup> (3 x 30m<sup>3</sup> tanks), for potable water supply for the subdivided lots. As the Upper Hutt City Council has yet to adopt the fire services code of practice including the requirement for 45 m<sup>3</sup> of dedicated firefighting water to be available for isolated dwellings not serviced by a reticulated water supply, such a provision is not mandatory but is recommended by way of further water storage – as 45m<sup>3</sup> is not a convenient volume with respect to stage tanks this typically means two additional 25 or 30m<sup>3</sup> tanks for dedicated firefighting giving a total of 5 tanks.

Additionally, with water likely to be stored for an increasing period, water treatment for potable purposes utilising cartridge filtration and UV irradiation is recommended for individual supplies. As several the properties are on steeper land, water storage tanks should be located on good ground, and partially buried, or otherwise structurally supported with posts or similar to ensure that they are not able to readily move during seismic events.

Additionally, with water likely to be stored for an increasing period, water treatment for potable

#### *4.3.12.4 Standards*

There are no features of this development that are different from any other rural development in Upper Hutt that relies on rain water collection. Water storage can be a requirement for building consent approval.

### **4.13 Storm Water**

#### *4.13.1 Description*

The potential for stormwater flows generated by tracks and dwellings to cause on and off site issues is described under flood management above.

The potential for stormwater flows generated by tracks and dwellings to cause on and off-site issues is described under flood management above.

It is important that stormwater generated especially on the steeper lots is appropriately disposed of. Whilst water from roof catchments can be expected to be harvested into water storage tanks, there will be times when these tanks are full, and the overflow needs to be adequately catered for. Additionally, any hard stand areas may accumulate run-off in high intensity rainfall events and care should be taken to ensure that such water is appropriately detained and directed so as not to because flooding, erosion or land instability.

#### *4.3.13.2 Intentions*

The properties on the lower lying land to the north have been identified to have good ground soakage and stormwater disposal by the standard Upper Hutt City Council recommended rural soak pit.

For sites which have access to waterways, reticulation of such clean waters directly to the waterway is an available option. If the concentrated flow is coming from areas which are used by vehicles or subject to intense animal stocking, it would be prudent to have such discharges pass through a wetland, sand bed or detention pond area rather than discharging directly to the waterway.

In other cases, especially where the concentrated stormwater is generated from access roads, roadside water tables, leading to local road water tables and from there to appropriate discharge points are recommended.

#### *4.3.13.3 Outcomes*

Storm water intensification does not lead to flooding, on-site erosion or loss of water quality on site or off site.

Main and Minor Roads are designed to ensure that stormwater is appropriately managed.

On site tracks and water storage outlets are appropriately designed to ensure that they do not lead to effects from stormwater discharge.

#### *4.3.13.4 Guideline*

When considering applications for resource consents for both subdivision and site development the proposal will need to demonstrate that stormwater neutrality can be achieved.

### *4.3.14 Sewage*

#### *4.3.14.1 Description*

The proposal for wastewater treatment and disposal is by on-site systems on each individual lot. Preliminary engineering assessment has not identified any sites that have technical constraints that will mean that sewage disposal will be unduly challenging.

#### *4.3.14.2 Intentions*

With potentially potable water supply bores being in a relatively close proximity to the subdivision, the moderate intensity of development proposed within the subdivision, and the ongoing development within the valley itself, in spite of the relatively high level of treatment which can be anticipated from disposal to land, it appears prudent to recommend on-site treatment systems incorporating enhanced nitrogen removal performance, in conjunction with a requirement for regular servicing and maintenance, and disposal through near surface laid pressure compensating dripline as a standard requirement through the subdivision.

Each site will need to have a sewage system approved that is appropriate to the circumstances of the site.

Factors to be considered in the specification for such systems are:

- The nature of source waste, which will be domestic and taken from dwellings which are primarily serviced from roof tank water supplies.
- The standard of treatment, which can traditionally vary from a basic septic tank, to a conventional (secondary effluent quality in terms of traditional wastewater treatment nomenclature), package treatment plant, to a treatment plant with advanced nutrient

removal performance, and at the top of the tree, advanced (tertiary treatment), systems with a higher level of organic and solids removal and or with a disinfection step.

The sensitivity of the receiving environment, with respect to both potential human activity - water supply bores, water recreational activities, harvesting food, and environmental sensitivities - potential impact on flora and fauna, and resulting further impact on human activities for example due to the proliferation of toxic algae.

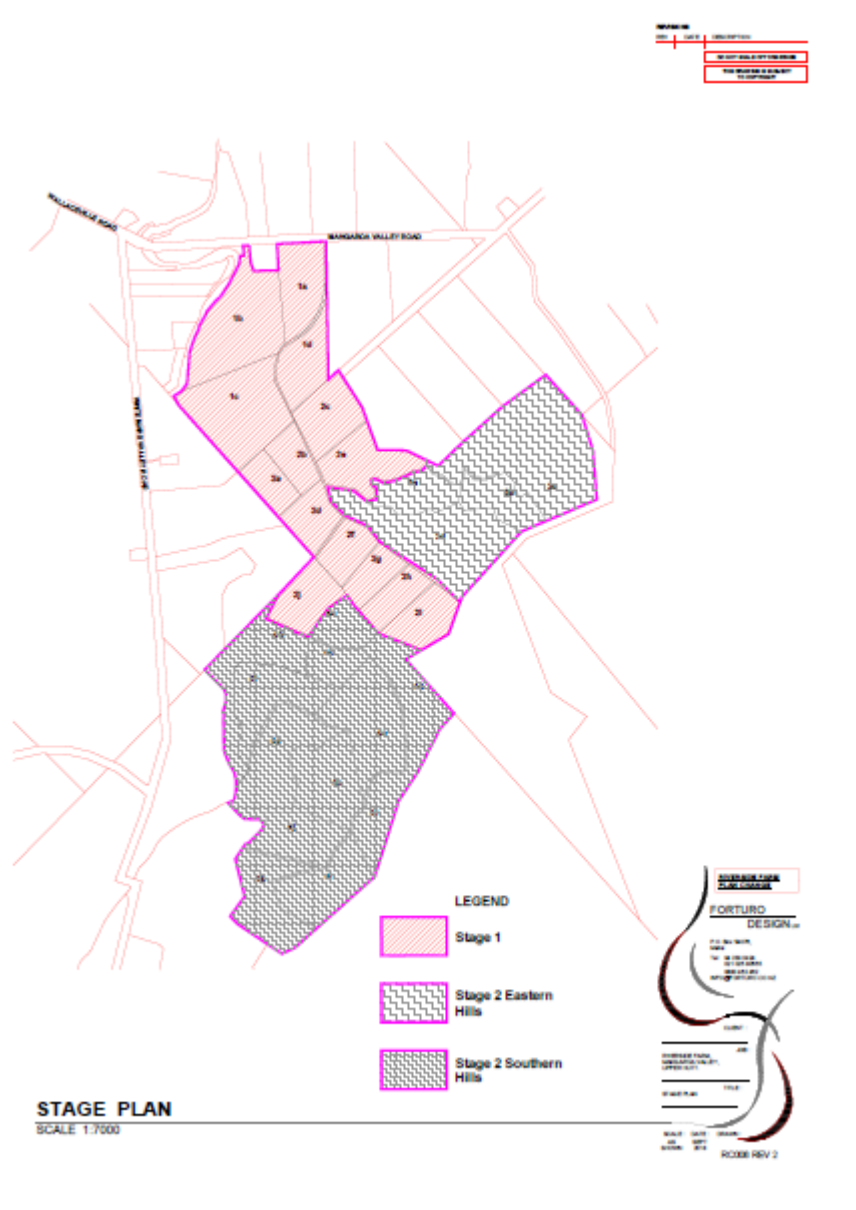
#### *4.3.14.3 Outcomes*

These measures should help to ensure that the both the subdivision sourced contaminant discharge, and the subdivisions' contribution to any cumulative effects from other developments in the valley, remain negligible.

#### *4.3.14.4 Standards*

For the design of on-site systems on individual lots, a full site investigation as specified in NZS1547:2012, and conducted by an appropriately qualified wastewater specialist, is recommended. Figure 18 below shows soakage testing being undertaken as part of the design process for the café wastewater disposal system to be located on the northern flats.

### 4.4 Riverside Farm Structure Plan Map



**Attachment 6: Changes to the Operative Plan**



**Riverside Farm Plan Change**  
**Attachment 5**  
**Details of Changes to District Plan**

**Chapter 5**

1. Add a new Policy as follows:

*5.4.13 Policy- To allow a variety of lot sizes within the Riverside Farm Structure Plan Area while maintaining amenity values and sustaining the scale and capacity of the productive rural land resource.*

**Chapter 19**

2. Insert an exemption following activities table 19.1 as follows:

Subdivision Activities in the Riverside Farm Structure Plan area will be managed according to the Rules in Chapter 40. which results in the creation of any new lot additional to those identified in the Structure Plan.

3. Insert an exemption following activities table 19.2 as follows:

Land Use Activities in the Riverside Farm Structure Plan area will be managed according to the Rules in Chapter 40. which results in the creation of any new lot additional to those identified in the Structure Plan.

**Insert New Chapter 40**

4. Insert new Chapter 40 as in Attachment 1

**Planning Maps 25 and 26**

5. Change the area covered by the structure plan which is currently zoned Rural Hill so that it is zoned Rural Valley Floor.

**Attachment 7: Landscape and Urban Design Assessment**



# Riverside Farm Landscape Assessment 2020

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10 MAY 2020

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**Liveable Design**

**Authored by: Yvonne Weeber**

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# 1. Introduction

This report provides an assessment of the actual and potential landscape and visual effects of the proposed subdivision at Riverside Farm in Mangaroa Valley Road. It provides a Riverside Farm Concept Plan that has been used to develop and test the Riverside Farm Structure Plan.

# 2. Methodology

The valleys, hills and farmland that surround Riverside Farm were analysed considering the existing and changing landscape and visual character. This analysis considered:

- The **landscape effects** of the existing rural character, physical landscape and landscape values in relationship to the changes of the proposed Riverside Farm development. This included past and present rural lifestyle subdivisions and how rapidly the landscape of the valleys and lower hills were changing from farmland to rural lifestyle subdivisions.
- The **visual effects** and visual amenity impacts experienced by people of the proposed development on Riverside farm were considered in relation to the surrounding area and the viewing audiences (adjoining neighbours, intermediate and distance rural residents, visitors and public road users). The visual sensitivity (viewing audience and value attached to the views) and reaction to the magnitude of change are described in relationship to the four landscape areas proposed for the Riverside Farm Subdivision.

Representative viewpoints with the high visual sensitivity (e.g. rural residents and public roads) were considered and photos taken. These photos were used to determine the potential effects of the development on Riverside Farm and consider who the viewing audience would be.

A description is given of the Mangaroa Valley being in transition from rural grassland to rural lifestyle subdivisions with this new land use of a lifestyle having positive rural, landscape, ecological and soil retention benefits. The landscape and rural change proposed at Riverside Farm is in keeping with past and present rural lifestyle subdivision in Mangaroa Valley.

A Riverside Farm Concept Plan was developed (Appendix 1, 2 and 3), to develop and test the Riverside Farm Structure Plan. This was an iterative process working between the concept plan and the structure plan. Attention was given in the concept plan to the rural character, landscape values and visual impacts of new roads, building platforms and buildings and measures to remedy and mitigate this in the most appropriate manner to avoid visual dominance of a new rural lifestyle subdivision at Riverside Farm on Mangaroa Valley.

# 3. Landscape Assessment

## 3.1 Mangaroa Valley rural character and landscape values

Riverside Farm is located at 29 Mangaroa Valley Road, Whitemans Valley, Upper Hutt. It is physically very close to the centre Upper Hutt city centre (approximately 5.5 kilometres or 9 minutes private car drive), major social infrastructure and public transport rail connections. It is also close to the Hutt Valley, Wellington City and the Wairarapa.

Mangaroa Valley is a rural area made up of the low lying Mangaroa Swamp with important ecological and geological characteristics, several productive farms, the Hutt Valley Clay Target Club, a backdrop of hill covered pine plantations and an increasing number of rural lifestyle subdivisions in the valley and on the adjacent low-lying hills.

Mangaroa Valley basin floor has been in the past predominantly productive dairy and cattle farms. This has created an open pastoral aesthetic with grass fields, visually permeable baton and wire

fencing, little original native vegetation, scattered shelter belts and the occasional residential house and large farm building with sparse tree coverage predominately around the buildings. Views from the road and residential dwellings are predominately, open and unobstructed, across the pastoral valley landscape and up to low lying and steeper hills, as seen from Figure 1.

Figure 1 -View from Wallaceville Road with farm paddocks in the foreground, residential housing along Whiteman's Valley Road with surrounding tree cover and the eastern hills of Riverside Farm (in centre of the photo) and extensive pine plantations (not in Riverside Farm) on steeper hills in the background.



### 3.2 Mangaroa Valley in transition

Mangaroa Valley is a rural area in transition from the past rural character of production farming to the present smaller rural lifestyle subdivisions. This is in part due, to its close proximity of Upper Hutt city with good transport connections to Hutt City, Wellington City and the Wairarapa. The Upper Hutt District Plan comments on this transition and the importance of the retaining an open rural appearance with a low density of residential buildings and limited earthworks.

The old and new lifestyle subdivisions create different road and building typologies in the rural landscape. One of the most visually notable features of new lifestyle subdivision is the increased road and driveway connections off Whitemans Valley Road and Mangaroa Valley Road with groupings of rural letters boxes and houses under construction (Figure 2). There is an increased number of residential buildings with several development sites along all major roads in Mangaroa Valley. The lifestyle subdivisions have increased tree coverage with diverse range of trees planted from shelter belts, ornamental and productive horticulture. This tree planting of the lifestyle subdivision is rapidly changing the open pastoral landscape into a heavily treed landscape with restricted smaller enclosed views.

Figure 2 -View of letterboxes on Mangaroa Valley Road indicating private road and lifestyle subdivision.



This new transitional lifestyle subdivisions can initially appear visually harsh compared to the pastoral grassland landscape (Figure 3). The fresh earthwork cuts for new road networks and house platform sites combined with large residential buildings have a high visual effect. However, with the extensive tree planting, that occurs around the lifestyle subdivisions, these visual effects reduce to moderate or low, creating their own restricted smaller enclosed views.

In the recent lifestyle subdivision on Wallaceville Road near Hutt Valley Clay Target Club (Figure 3) extensive cuts to create building platforms on hillsides, new buildings and a skyline dominated by a large water reservoir create a raw new landscape in the Valley. The lot size of this lifestyle subdivision is variable from ranging from 0.6 hectare to 1.5 hectares. However, already extensive tree planting has occurred on the lots and the lifestyle subdivision will integrate into the Valley with restricted enclosed views comparable to the older mature lifestyle subdivisions substantially reducing the views of the present buildings and earthworks cuts.

Figure 3 -View of recent lifestyle subdivision off Wallaceville Road. Earthwork cuts and residential buildings visually noticeable as tree planting is new and at a very low height.



The older mature lifestyle subdivisions, such as Katherine Mansfield Drive and those off private driveways on Mangaroa Valley Road, create a lifestyle visual aesthetic with manicured road verges, solidly designed fences and gates, increased tree planting and trimmed shelter belts (Figure 4). The increased tree planting of the older lifestyle subdivisions restricts the ability to view buildings from the main valley roads. There are only small glimpses of the buildings in these older mature lifestyle subdivisions.



Katherine Mansfield Drive in the late 1980s was a new lifestyle subdivision of small lots with the majority of lots just above a hectare in size. From personal memory when I worked as a landscape architect at Upper Hutt City Council the subdivision was raw and visually stood out markedly from its rural pastoral neighbours. Today however this landscape is extensively treed with very few houses being visible directly from the road (Figure 4). Katherine Mansfield Drive has created its own rich rural character visual aesthetic and within Mangaroa Valley, enhanced by its smaller lots size. The lot size has permitted a diversity of uses and ability to design a treed landscape according to each lot holder's aspirations.

Figure 4 -View of extensive mature tree planting obscuring views of residential buildings along Katherine Mansfield Drive.



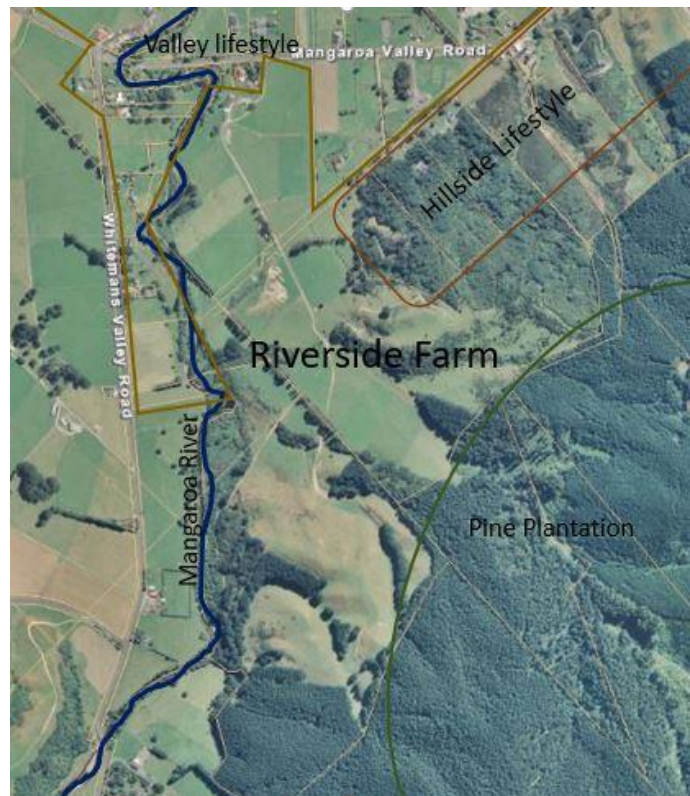
Having a higher tree density within mature lifestyle subdivisions has positive landscape, ecological and soil retention benefits. It can also include the retention and enhancement of valued Significant Natural Area (SNA) through covenanting, fencing, weed control and supplementary planting of natives. The mature lifestyle subdivision tree cover increases the diversity of visual amenity and creates new landscape values in Mangaroa Valley.

### 3.3 Riverside Farm boundaries

Riverside Farm boundaries (Figure 5) are made up of:

- Northern Mangaroa Valley lifestyle subdivisions;
- Eastern moderate hillside lifestyle subdivisions;
- Western Mangaroa River and Whitemans Valley Road pastoral farming changing to smaller lifestyle blocks;
- Southern pine plantation on steeper higher hills.

Figure 5 - Aerial photo of the different boundaries around Riverside Farm- Valley Lifestyle, Hillside lifestyle, Pine Plantation and the Mangaroa River and Whitemans Valley Road pastoral farming.



Riverside Farm is sandwiched in between the transitioning valley lifestyle subdivisions on the Mangaroa Valley basin floor and the Pine Plantation on the steeper southern hills.

### 3.4 Mangaroa Valley Road and Whitemans Valley Road lifestyle subdivisions

The area of Mangaroa Valley to the north of Riverside Farm is made up of many lifestyle subdivisions. This is visually noticeable by both the number of multiple new letterboxes along the main road coming off private driveways development and the large residential buildings on small rural lots that can be seen from the main roads.

Near the intersection of Wallaceville Road, Whitemans Valley Road and Mangaroa Valley Road older small narrow residential lots are present with old residential buildings and mature trees.

Whitemans Valley Road is rapidly changing with a number of large new houses being built or under construction close to the road. The visual aesthetic of this part of Whitemans Valley is now under transition from one of pastoral to lifestyle subdivision. Just as Katherine Mansfield Drive changed the landscape values and rural character, these houses will be developed with more tree planting and a diverse range of landscape uses.

The new lifestyle lots and the older residential lots create an increased residential density with its own rural character and landscape values in Mangaroa Valley.

#### 3.4.1 Eastern Hillside lifestyle

The low eastern hills of Riverside Farm have been subdivided into lifestyle lots with private road access from Mangaroa Valley Road. The residential buildings are positioned to maximise views across the valley and solar gain. Earthworks and vegetation removal for access and building platforms on the eastern hills would have had a high visual impact throughout the valley. However, now the private roads and most of the houses are difficult to see due to taller native shrub or tree vegetation surrounding the residential buildings (Figure 6). The surrounding vegetation, especially

taller trees behind the buildings substantially reduces the visual intrusion of these houses on their neighbours and the surrounding valley. Painting roofs and walls of buildings in recessive darker colours has also reduces the visibility of buildings in this landscape (Figure 6). The eastern hillside lifestyle lots and their buildings now have a low visual effect on the valley. This pattern of hillside lifestyle subdivision is a good design aesthetic to copy for Riverside Farm hillside subdivision.

Figure 6- Hillside houses on lifestyle lots are difficult to see as they are surrounded by taller native shrub or tree vegetation. Trees behind and in front of the building reduce the size of the dwelling in the landscape. This house also has recessive darker coloured pitched roof with wide eaves and darker coloured walls to further reduce the visual impact of the building.



### 3.4.2 Western Mangaroa River and Whitemans Valley Road pastoral farming

To the west of Riverside Farm is Mangaroa River and Whitemans Valley Road. Approximately half this boundary is still in pastoral farming. It is clear from recent changes that further lifestyle subdivision with residential buildings is taking place on this pastoral farming land changing the rural character and landscape values of this area.

### 3.4.3 Pine Plantation backdrop

To the south of Riverside Farm are steep hills covered in pine plantation with no buildings being visible. This pine plantation forms an important visual vegetative dark green forest backdrop (Figure 7).

Figure 7 – View from Wallaceville Road showing Riverside Farm positioned between the Mangaroa Valley basin floor and the pine plantation backdrop.



It is envisioned that the pine plantation will be present for the initial stages of the proposed Riverside Farm lifestyle subdivision and form an important dark green tree covered visual backdrop.

When the pine plantation hills are harvested there will be a significant and very high visual impact throughout Mangaroa Valley with the hills visually bare with cut over pine plantation for many years. Having greater tree and shelter belt cover from future Riverside Farm lifestyle lots could help to reduce the visual impact of future pine harvesting.

The steep terrain of the pine plantations will require management of post-harvest woody residue, debris, and slash so that it does not contribute to debris flow down the hillsides and into the surrounding small streams and into Riverside Farm.

### 3.5 The Riverside Farm landscape context and site topography

The Riverside Farm is a productive farm with grazing cattle. In the past it was a dairy farm. It is approximately half valley floor with low to gentle gradient and half moderate gradient hills. The Farm is divided by its topography and boundaries into four distinctive landscape areas. Half being valley and half hillside. The Farm is predominately made up of a north facing valley floor and low-lying hills with ridges running in a south-east to north-west direction with small streams coming down towards Mangaroa River.

For this landscape assessment the Riverside Farm is divided into four landscape areas (Figure 8) which are:

- Low Valley
- Upper Valley
- Eastern Hills
- Southern Hills

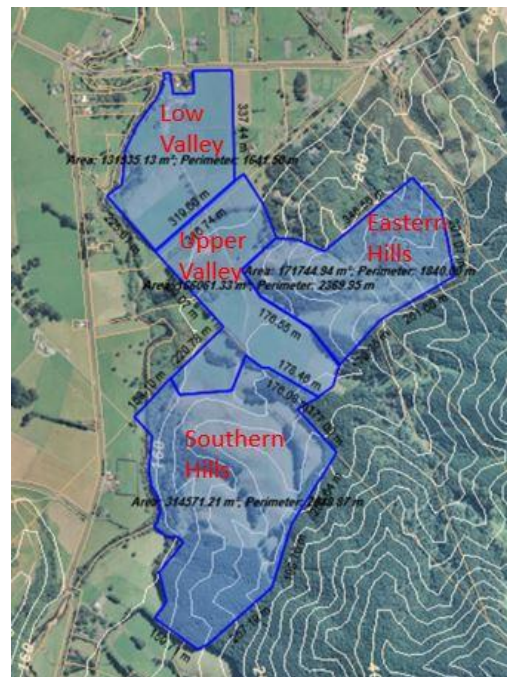


Figure 8- Riverside Farm four landscape areas are described in this report.

#### 3.5.1 Low Valley

The Low Valley landscape area (Figure 9) adjoins Mangaroa Valley Road and runs up to the paper road an approximate area of 13 hectares. The Mangaroa Valley Road boundary is bisected by an older lifestyle lot at 34 Mangaroa Valley Road. The Low Valley is a flat grass area running up to a small river valley terrace approximately 330m to 500m from the Mangaroa Valley Road. There is limited tree vegetation with a scattering of trees along the central road and tree vegetation adjoining Mangaroa River to the west. There is a farm building to the north west of this area. Views of the building are limited from Mangaroa Valley Road due to 34 Mangaroa Valley Road.

Figure 9 – Views of the Riverside Farm Low Valley area from Mangaroa Valley Road.



Views into the Low Valley area of Riverside Farm are limited to surrounding neighbours and directly off Mangaroa Valley Road boundary due to the flat nature of this land. Views into this part of the farm will be further reduced by the future development of a café.

### *Café*

A subset of the Low Valley landscape area is the Café area. A land use consent for a café on Riverside Farm adjoining Mangaroa Valley Road has been granted by Upper Hutt City Council (Figure 10). This approved consent is for a single-story café building (approximately 5.5m high). The café building will be constructed approximately in the middle of the road frontage with a setback of 45m from the road, 40m from the western boundary (and the boundary of the property with the nearest residential dwelling.); and 43.8m from the eastern boundary. Building setback distance in the Rural Zone is 12m from all Boundaries. Gravel parking for 30 visitor vehicles and an additional 6 staff parks will be provided on site to the east of the café building.

Access off Mangaroa Valley Road to the café will be by way of a 6m wide driveway, offset from the centre of the site (located more than 30m from the access at the property boundary). This complies with the permitted activity standard of being more than 20m from any access to an adjoining lot. The road entrance into the Café could form the main entrance to the proposed Riverside Farm lifestyle lots.

Figure 10 – Indicative café position with measurements from the boundary (not to scale) with indicative perspective of the Café as viewed from Mangaroa Valley Road.



The café development will not be significantly bigger than any of the present rural lifestyle residential buildings, surrounding hard standing areas and out-buildings (e.g. garages, horse stables, and barns). The café development will however be the focus of activity at this point of Mangaroa Valley and it will also significantly reduce the views up into the Low Valley due to the size and scale of the café building, carpark, tree planting and associated landscape treatments.

The Café will form an important focus for the growing Mangaroa Valley community and future lifestyle subdivision including the proposed at Riverside Farm. This café will be a place where people

meet, eat and relax and can be the communities living room. A café in a rural community is often a catalyst in drawing people together and creating increased community activity. A café can also provide good security at the entrance of the lifestyle subdivision with the presence of people throughout the day.

### 3.5.2 Upper Valley

The Upper Valley landscape area is grassland with an approximate area of 16 hectares and made up of low gradient slopes with a north-west aspect. Vegetation cover is limited to a shelter belt of gums cross the bottom area and scattering of vegetation along a small bisecting stream. Views from the Upper Valley down into Mangaroa Valley are funnelled in a north-west direction by the surrounding hills and hillside vegetation (Figure 11).

Figure 11 – Views of Mangaroa Valley from the upper valley area. SNA vegetation is present on the left (eastern side) of the Upper Valley area.



Views on to this part of the farm from surrounding Mangaroa Valley are limited due to the enclosed nature of the valley with surrounding hills and vegetation both on the Riverside Farm and tree cover of adjoining properties along the main roads reducing views into the valley (Figure 12). The clearest distant views of the top portion of the Upper Valley area are from Wallaceville Road.

Figure 12- Views of the top section of the Upper Valley and Eastern Hills from Wallaceville Road.



### 3.5.3 Eastern hills

The Eastern hills landscape area is made up of moderate to steep gradient hills. At the base of the Eastern Hill area is a small stream. Native beech vegetation adjoins the stream on a steep hill face and more extensive native shrub vegetation covers the top of the Eastern Hills. The Eastern Hills area has an approximate area of 17 hectares and has the highest point of the farm at 295m.

Two farm tracks dissect the main ridge of the Eastern Hills the northern track is visible from Wallaceville Road and northern areas of Mangaroa Valley.

Extensive views out over Mangaroa Valley are gained from this hillside (Figure 13). Therefore, any development on the Eastern Hills will be seen throughout the valley. However, there is always an extensive backdrop of the taller pine covered hills to the east of the farm.

Figure 13 -Views from the eastern hills of Riverside Farm out on to Mangaroa Valley.



Within Riverside Farm Upper Hutt City Council has identified three areas of Significant Natural Areas (SNA) vegetation on the north-eastern hillside. Two areas adjoin neighbouring land which could potentially also be SNA vegetation. The SNA vegetation is comprised of beech forest with areas of broadleaf and significant weed infestation in places. Upper Hutt City Council does not identify any threatened, at risk or regionally uncommon plant species. The beech forests do represent a native forest cover that would have been present prior to human activity and clearance for pastoral farming.

Upper Hutt City Council is working on a Significant Natural Area (SNA) plan change. At present ecologists are undertaking desktop evaluations and draft SNA Information on Riverside Farm has been supplied by Upper Hutt City Council on the 15 August 2018. While the SNA sites are subject to change and remain in draft form this information has been used to develop protection areas and the boundaries of several lots on Riverside Farm.

It is the intention of Upper Hutt City Council to share and undertake consultation on the draft SNA sites with affected landowners. Further refinement is likely to occur at this stage. All the SNA's identified on Riverside Farm by Upper Hutt City Council could be protected through creating lots around the vegetation and placing potential house sites away from the SNA sites. It is also envisioned that the design of the lot boundaries would enhance protection through fencing and possible restoration of native forest planting by future landowners of the new lots.

#### 3.5.4 Southern hills

The Southern Hills landscape area is the biggest area of Riverside Farm with an approximate area of 31 hectares. This area is made up of two main grass ridges surrounded with pine plantation (on the farm) to the south and tree vegetation on steeper faces of the hill. The western boundary of this area is the Mangaroa River. There are two farm tracks one going up to the top of the ridges and the other lower track following beside Mangaroa River.

There are two main ephemeral streams in the southern hills running in an east to west direction down to Mangaroa River.

The southern hills are visible from Mangaroa Valley with the grass ridges surrounded by pine trees being a visually noticeable from Wallaceville Road (Figure 14) and Whitemans Valley Road.

The western boundary by the Mangaroa River cuts steeply away from the existing farm track with a vegetation cover that ranges from scattered pine trees through to regenerating mahoe shrubland through to a grove of young black beech trees (*Nothofagus solandri* var. *solandri*).

Figure 14- Views of the southern hills from Wallaceville Road.



## 4. The Riverside Farm Landscape Concept Plan

### 4.1 The landscape concept plan

The Riverside Farm Landscape Concept Plan (Appendix 1, 2, and 3) was developed to test one potential subdivision design against the Riverside Farm Structure Plan. In the Riverside Landscape Concept Plan the subdivision has been designed to:

- Reduce road and building platform earthworks.
- Maintain and enhance streams, wetlands and associated native vegetation.
- Provide an indicative lot yield relating to the landscape capacity and character of specific areas on the Riverside Farm.
- Provide an indicative position for building platforms throughout the different areas Riverside Farm.
- Test visual impact on the viewing audience.
- Provide concepts for landscape plan requirements.
- Provide concepts for building form, materials, textures, colours, reflectivity, lighting and landscape treatments.
- Test the structure plans objectives, policies, rules and guidelines.

### 4.2 The road proposal and associated earthworks

Access to the lots is via a shared private road starting from the eastern boundary off Mangaroa Valley Road. The shared road will go up the boundary approximately 180m before heading on a south west angle. Road access has been kept to a minimum and wherever possible the existing farm roads are used as a base of the new Riverside Farm Lifestyle subdivision to reduce additional cuts and minimise ground disturbance on the hilly landscape. To reduce earthworks, shared access roads have been considered an important design feature over individual road access.

The earthworks will be limited to the construction of roads and building platforms on steeper sites and specific earthworks on the gentle gradient slopes. Further information is supplied the report by Stu Clark of NZ Environmental Technologies Ltd on *52 Mangaroa Valley Road – Riverside Farm Proposed Plan Change and Subdivision Engineering Report*.

Road access will be made up of three road types as described in Mr Clark's Engineering Report.



1. Major roads making up the main share access would be sealed to 7m- 6m wider carriageway width. Servicing 30 properties plus the cafe, with an estimated 300 vehicle movements per day for the subdivision and a larger volume of traffic movements for the short section to the Café<sup>1</sup>.
2. Minor Roads (predominately for the southern hills and eastern hill lots) would service multiple properties with a min 3m carriage width with passing bays every 100m (northern roads) or be a 1-way road (southern loop road)<sup>2</sup>.
3. Property access roads to meet the subdivision and the land owners' requirements.

## 4.2 Streams

It is the intention to maintain streams (including small ephemeral streams) wetlands, and any associated native vegetation. Earthworks will be carried out close to two streams on Riverside Farm where there are existing farm tracks that follow up valleys primarily to reduce the amount of earthworks throughout the subdivision.

Natural streams and wetlands are to be protected and enhanced through riparian planting and removal of exotic weeds with fencing to remove stock.

## 4.4 Lot size and building platform

Lots have been developed with a variety of sizes with a possible building platform in each lot.

The most viable rural productive land in the Low valley has been left in larger lots. This reflects the rural pastoral aesthetic of the lower Mangaroa Valley and allows flexibility of building platforms in relationship to flooding hazard areas on these lots.

The Upper Valley lots are smaller but still allow for a diverse range of rural activities on the flat and gentle sloping lots. In addition, the smaller upper valley lots all have enough land to allow siting of the building platform in a way that can reduce the impact on neighbouring lifestyle lots. The size of these lots is of a similar in size to the existing Katherine Mansfield Road lifestyle subdivision.

Lots on the Eastern Hills and Southern Hills are a mixture of sizes relating to the topography, road access and possible building platforms. The building platforms on the hills have been selected to:

- Minimize the volume of earthworks required to form a building platform and access to the platform.
- Maximise the upper slopes behind the building platform to provide areas for planting to reduce the initial visual impact.
- Maximise solar gain for any residential buildings.
- Maximise views across Mangaroa Valley and even into the Upper Hutt Valley.
- Reduce visual impact of buildings, where possible, on the wider Mangaroa Valley viewing audience.
- Retain, protect and enhance the existing SNA vegetation.

Buildings design and the relationship to the landforms have been considered for each area.

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<sup>1</sup> Stu Clark of NZ Environmental Technologies Ltd on *52 Mangaroa Valley Road – Riverside Farm Proposed Plan Change and Subdivision Engineering Report*

<sup>2</sup> Stu Clark of NZ Environmental Technologies Ltd on *52 Mangaroa Valley Road – Riverside Farm Proposed Plan Change and Subdivision Engineering Report*

Streams are used in most cases as a boundary edge e.g. lot 3d, 4e, 4a and 2j. This will allow for future fencing and riparian stream planting. In a few cases the streams do cut through the lots. Riparian planting is proposed for lot 2d, 2j, 3d, 4a, and 4e.

#### 4.5 The proposed landscape concept plan areas

The Riverside Farm Landscape Concept Plan (Appendix 1, 2, and 3) has four distinctive areas which relate to the Riverside Farm landscape context and site topography. A description of indicative lots, number of lots an approximate size is provided in Table 1.

Table 1

Appendix	Map and area name	Lot numbers	Number of lots	Approx. range of lots in hectares	Approx. lot sizes in hectares
One	Family and Cafe lots	1a-c	4	2 to 4.6 hectares	2.3, 4.6, 4.5, 1.8
Two	Upper Valley	2a-j	10	1.1 to 2.3 hectares	1.1, 1.2, 2.1, 1.5, 2.3, 1.3, 1.2, 1.5, 1.7, 1.8
Two	Eastern Hills	3a-d	4	1.7 to 7.3 hectares	1.8, 1.7, 7.3, 5.3
Three	Southern hillside	4a-l	12	1.2 to 3.7 hectares	1.2, 1.3, 1.1, 2.7, 3.7, 2.7, 2.9, 2.8, 1.6, 2.0, 2.9, 2.5
	TOTAL		30		

**Appendix Four** provides the Riverside Farm lifestyle subdivision landscape concept plan intentions, outcomes and guidelines for the different areas develop in conjunction with the Riverside Farm Structure Plan.

#### 4.6 Low Valley Family lots (lots 1b-1d) and Café (Lot 1a)

The Café Lot is off Mangaroa Valley Road. The main entrance to the Riverside Farm is proposed to the east of the Café Lot. The café lot is small however it could be larger by incorporating it with the adjoining low valley lot.

The Family low valley lots are the larger lots of the Riverside subdivision which are considered more the traditional lifestyle subdivision and enhancing the existing open rural pastoral character. They are made up of flat arable land that could be used for a variety of productive and lifestyle farm opportunities. House sites could be placed anywhere on these lots due to the lack of topographic features. However, positioning house sites away from the road and adjoining neighbours will make future buildings less visually intrusive. Building platforms have been placed to reduce the potential flooding risk by Mangaroa River.

##### *Visual impact and Landscape Plan Requirements*

Views from Mangaroa Valley Road into the lower valley area will be reduced due to the future café development. Views from surrounding Mangaroa Valley into this area are limited into this lower valley area. The visual impact of the lower valley lifestyle subdivision will be further reduced due to the larger size of the lots.

It is envisioned that any landscape plan requirements in this area will be formal in nature with avenue planting along the main access road. Additional landscape planting of a low to moderate height is proposed along the eastern boundary of 1d (next to the neighbours adjoining residential house) to reduce the visual impact of any future residential building on this lot.

Low level building design (Figure 15) that visually integrated into the landscape will ensure reduced visual impacts and visual height dominance that occurs with multi-level buildings. Buildings placed on level building platforms to maximise solar gain and maintain a visual separation between neighbouring dwellings and high activity rural activities. Identifying the position of the house and farm buildings in relationship to adjoining neighbours to minimise reverse visual sensitivity.



Figure 15 Examples of low-level building design integrated into the landscape to reduce the visual impact of height.

#### 4.7 Upper Valley Map (2a-j)

The upper valley lots are smaller and made up of ten relatively flat lots with a gentle north-west aspect. Access to these lots will be off the main spine road. The lot size is typical of the “Katherine Mansfield Drive” lifestyle development.

House sites like the low valley lots could be placed anywhere due to the gentle sloping gradient. However, these lots do have features such as the hills to the east and west where residential buildings can be placed to enhance the outlook, reduce the buildings presence and reduce the amount of morning shade from the eastern hills.

Note- Further subdivision could occur on lot 2c in a similar way to lots 2a and 2b. This is not shown on the plan. Use of the paper road could be the northern access to 2a, 2b and a further subdivided 2ci and 2cii.

#### *Visual impact and Landscape Plan Requirements*

Views into the lots and building platforms of the Upper Valley are limited. Views from Mangaroa Valley Road and Whitemans Valley Road into this area are constrained due to the topography, hills, and existing tree and shelter belt vegetation.

Unnecessary disturbance of the SNA vegetation, riparian edge or wetland planning e.g. Lot 2d should occur through fencing prior to development. Suitable indigenous planting should be used to connect the SNA vegetation and enhance the riparian edges and wetland. The SNA vegetation to the south east of this site will require fencing with negotiation with the adjoining landowner.

Low level building design (Figure 15) that visually integrated into the landscape will ensure reduced visual impacts and visual height dominance that occurs with multi-level buildings. Buildings placed on level building platforms to maximise solar gain and maintain a visual separation between neighbouring dwellings and high activity rural activities. Identifying the position of the house and farm buildings in relationship to adjoining neighbours to minimise reverse visual sensitivity.

#### 4.8 Eastern Hills Map (3a-d)

The shape of the eastern hillside lots have been designed around access to these lots and their relationship with the two SNA areas of vegetation. The lots are steep with building platforms being proposed on the flatter areas on ridge ends. This reduces the volume of earthworks and visible earthwork cuts. One lot (3c) has road access (using the existing road counters) through an SNA with the house site set to the west of the main area of the SNA.

The three ridge building platforms (3a, 3b and 3d) have significant views to the west of Whitemans Valley. However, all three building platforms will have higher hill or vegetative backdrop to reduce the visual impact of new houses on these lots. Consideration of reducing the earthworks effects for the roading and building platform is an important and will reduce the initial developments visual impact from Mangaroa Valley.

##### *Visual impact and Landscape Plan Requirements*

The proposed minor road uses the existing farm road as its base.

Building platforms of lots 3a, 3b and 3c will be visually obvious on Wallaceville Road, Mangaroa Valley Road and the Whitemans Valley Road. Appropriate building and landscape design will be required on the eastern hill lots to help reduce the visual impact on these roads.

For earthworks consider:

- The building platforms, outdoor living areas and roading to reduce earthworks and retaining structures.

For landscape design consider:

- The batter of slopes around and behind building platforms or above the ridge to reduce the visual impact of buildings.
- Indigenous planting to enhance the SNA vegetation and natural ecological features of the Riverside Farm Lifestyle Subdivision.
- The placement and direction of outside lighting to reduce the night time visual impact.

For building design consider (see examples Figure 15):

- Low profile buildings located on a small building platform designed to sit into the landscape or a collection of similarly designed building forms with similar material composition and arranged down or up a slope.
- The use of darker non-reflective roof and building materials with textures and a similar material composition to compliment and integrate the buildings into the surrounding area and reduce the visual impact of the building.

Figure 15 Examples of different building typologies that could be used on Eastern and Southern Hills. These buildings are designed to sit in the landscape either as a small platform building or a collection of building forms with a similar material composition down or up a slope. Use of dark roofs and



*darker building materials will compliment and integrate the buildings into the surrounding area.*

On lot 3d an area of SNA vegetation can be fenced off along the boundary of 3a and 3b and along the boundary of the stream.

Lot 3c contains most of the SNA vegetation on the Riverside Farm. An existing farm road will be retained to allow access up to the building platform on this lot. Fencing of the SNA vegetation could include negotiation with the adjoining landowner so to provide protection to the SNA but rather than create a defined property boundary.

Riparian planting is proposed along the stream edge next to the road on lot 3d.

#### 4.9 Southern Hills Map (4a-l)

The southern lots have been designed to fit in with the route of the existing lower and upper roads. The lots are mainly large with limited house sites on ridge ends or cut into the hill slope.

Most of the sites have significant views out to the north of Whitemans Valley and some over into Upper Hutt.

#### *Visual impact and Landscape Plan Requirements*

A large area of Riverside Farm southern hills is presently in plantation forestry or tall pine shelter belts. It is proposed that the southern pine plantation and pine shelter belts will be logged prior to

the development of Riverside Farm lifestyle subdivision. This has created minor visual impacts prior to the subdivision of the farm into lifestyle lots with building platforms. The present farm road will be improved and upgraded to allow access for the pine removal. The upgraded roads will form a base for any future lifestyle subdivision roading in the area, thus reducing the amount of landscape disturbance required for the lifestyle subdivision.

Lots 4b, 4c, 4d, 4e, 4f, 4i, 4h, 4j, 4k, and 4l will be visible from Wallaceville Road, Mangaroa Valley Road, Whitemans Valley Road and Katherine Mansfield Drive. Building and landscape plans will be required around the southern hills lots to help reduce the visual impact of the earthworks and reduce the visual impact of buildings on these lots. Planting beside or above the ridge will be one of the best ways of reducing the visual impact as shown in figure 6. Riparian planting is proposed on lots 4a and 4e.

Appropriate building and landscape design will be required on the southern hill lots to help reduce the visual impact.

For earthworks consider:

- The building platforms, outdoor living areas and roading to reduce earthworks and retaining structures.

For landscape design consider:

- The batter of slopes around and behind building platforms or above the ridge to reduce the visual impact of buildings.
- Indigenous planting to enhance the SNA vegetation and natural ecological features of the Riverside Farm Lifestyle Subdivision.
- The placement and direction of outside lighting to reduce the night time visual impact.

For building design consider (see examples Figure 15):

- Low profile buildings located on a small building platform designed to sit into the landscape or a collection of similarly designed building forms with similar material composition and arranged down or up a slope.
- The use of darker non-reflective roof and building materials with textures and a similar material composition to compliment and integrate the buildings into the surrounding area and reduce the visual impact of the building.

## 4.10 Significant Natural Areas

There are four SNA's identified within the proposed Riverside Farm Structure Plan. This is one more than the three identified in the Upper Hutt City Council survey. These areas are:

### 4.10.1 Area 1

This area would be contained entirely within Lot 3c on the northern hills forming the bulk of the lot.

This area is the largest area of SNA on Riverside Farm of regenerating forest which is part of a larger SNA area spread over part of the six adjoining neighbouring lots to the north east and west. The forest is diverse with a wide range of typical broadleaf species and occasional podocarps and some emergent beech. The forest remnant within the property is fenced and there is little evidence of browse. Possums have been well controlled as part of wider area programmes. Red and fellow deer, goats and pigs are present in the area.

The bulk of the area does not appear to be heavily influenced by invasive plant species, but the edge close to grazing land is at an earlier seral stage and does have significant weed elements.

Overall the conservation value of this SNA is assessed as being moderate to high.

#### *Extent of Protection*

A covenant would be registered over this area prior to development of the Eastern Hills Precinct. The proposed covenant would provide for the establishment and maintenance of an access track and a building platform/curtilage area in the specified location.

Provisions could be made for a walking tracks within the SNA with access rights for Riverside Farm Residents.

The purpose of the covenant is to ensure the active protection of the SNA through fencing with ongoing management of weed control, pest control and enhancement planting.

#### *4.10.2 Area 2*

The SNA is entirely contained within lot 3d.

This is an area of native beech trees that are isolated and is approximately 88m from the nearest contiguous forest stand.

The SNA is not fenced and has been grazed for many years with ground compaction and rutting. The beech trees are showing signs of senescence. The undergrowth is of poor quality and dominated by weed species such as blackberry and barberry.

Overall the conservation value of this SNA is assessed as being low in its current state but with the potential to be moderate with appropriate management and fencing off of grazing animals.

#### *Extent of Protection*

A covenant would be registered over the remnant forest area, a 5m buffer around the northern boundary and 10m boundary around the remainder. The covenant area could also include an additional corridor of land incorporating scattered regenerating trees to form a corridor along the northern boundary of Lot 3d.

Fencing and registration of the covenant would be undertaken prior to development of the Eastern Hills Precinct. Additional buffer planting would significantly enhance this covenant area and help to reduce wind throw which is occurring at present.

The purpose of the covenant is to ensure the active protection of the SNA through fencing with ongoing management of weed control, pest control and enhancement planting.

#### *4.10.3 Area 3*

This area is entirely contained in lot 2e

This SNA of beech forms part of a larger area of beech forest on an adjacent northern property which is not formally protected. The area is not fenced and has been grazed for many years. The beech trees are showing signs of senescence. The undergrowth is of poor quality and dominated by weed species such as blackberry and barberry. The adjacent forest in the neighbouring property is of better quality.

Overall the conservation value of this SNA is assessed as being low in its current state and will remain of low value unless active protection of both this stand and the larger adjacent forest area is undertaken.

#### *Extent of Protection*

A covenant would be registered over the remnant forest area, and a 5m buffer around the boundary. Fencing and Registration of the covenant would be undertaken prior to issue of title for Lot [2e]. Additional buffer planting would significantly enhance this covenant area.

The purpose of the covenant is to ensure the active protection of the SNA through fencing with ongoing management of weed control, pest control and enhancement planting.

#### *4.10.4 Area 4*

This area is being called the Mangaroa Rive Riparian Covenant and occurs along the western boundary of the Southern Hill lots. The area is on the western boundary of Mangaroa River and the western access road to the Southern Hill lots. This is a triangular shaped piece of land that ranges in distance from the river. This area is land that would not be within any lot boundary and would be formed into its own covenant lot on the Mangaroa River boundary. Within this area is a stand of young beech trees with edges of regenerating vegetation with scattered pine trees. The steeper areas have limited grazing and a dense undergrowth while other flatter areas have no undergrowth and signs of cattle moving through the beech tress.

#### *Extent of Protection*

A covenant would be registered over this area prior to development of the Southern Hills Precinct. The proposed covenant would not provide active protection of the area. It is not possible to protect the river boundary as there is no corresponding covenants for adjoining riparian areas on neighbouring land.

Prior to development of the Southern Hills precinct the boundary of this area would be fenced off from the access road with a stock proof fence. No grazing, or motorised vehicle access would be allowed within the area unless required for river protection works. A walking track could be developed to gain access or views of the Mangaroa River.

A covenant would be registered over the remnant forest area, and a 5m buffer around the boundary. Fencing and Registration of the covenant would be undertaken prior to issue of title of the Southern Hills Lots. The purpose of the covenant is to ensure the active protection of the SNA through fencing with ongoing management of weed control, pest control and enhancement planting.

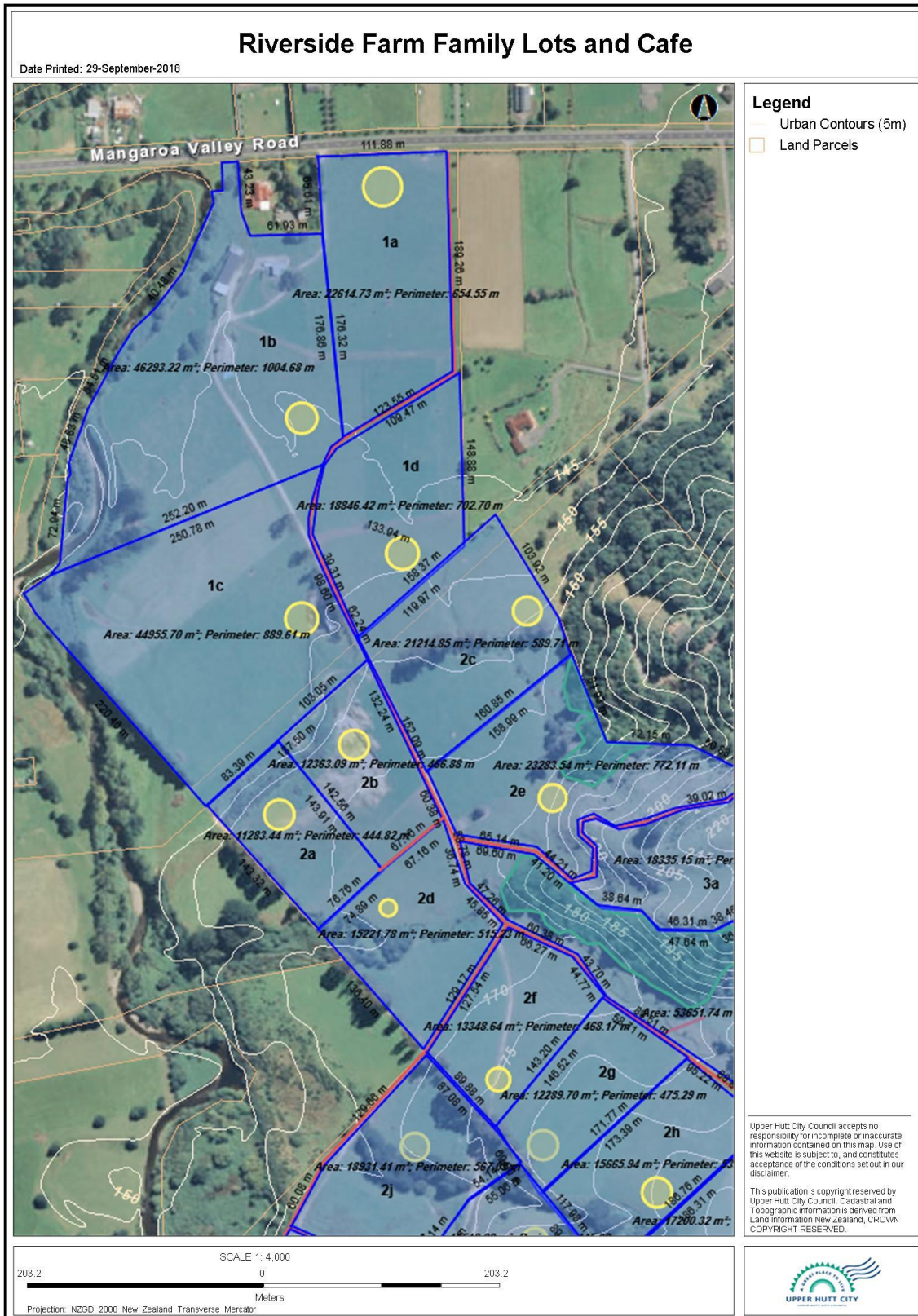
## **5. Conclusion**

The Riverside Farm Concept Plan will achieve a high level of landscape amenity and provide a landscape character consistent with the existing Mangaroa Valley and hillsides lifestyle subdivisions.

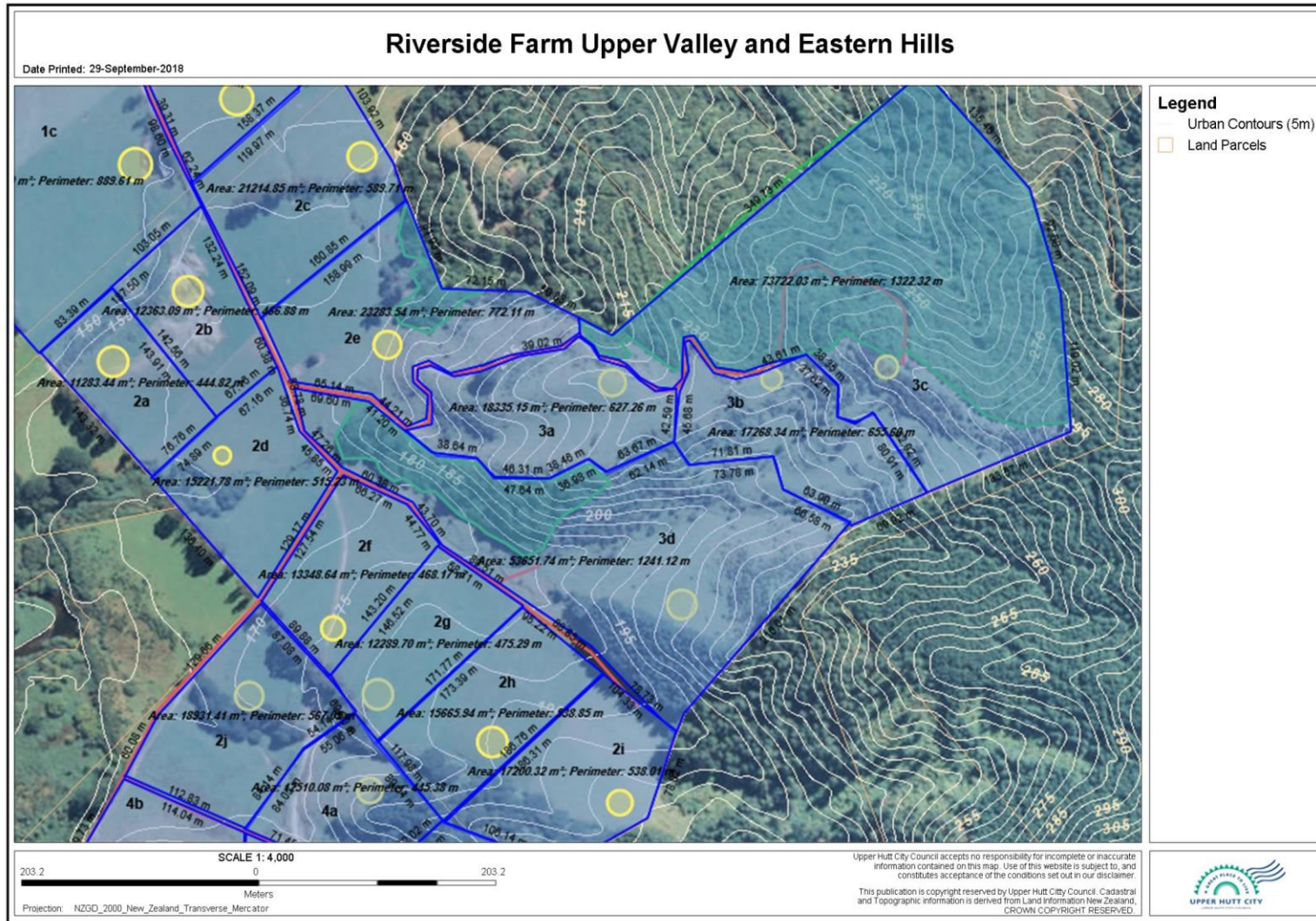
The proposed Riverside Farm Structure Plan can create several designs to create a mixed density rural-residential area. This structure plan is consistent with Upper Hutt District Plan objectives and policies in retaining the rural appearance of Mangaroa Valley.



# Appendix One: Family and Cafe lots Riverside Farm Concept Plan



# Appendix Two: Upper Valley and Eastern Hills Riverside Farm Concept Plan





Appendix Four: Riverside Farm Concept Plan- intentions, outcomes and guidelines

Precinct	Low Valley	Upper Valley	Eastern Hills	Southern Hills
<b>INTENTIONS</b>				
<b>Type of Precinct subdivision</b>	Traditional larger 'lifestyle subdivision' lot. Existing open rural pastoral character maintained until rest of block developed.	Provide for typical "Katherine Mansfield Drive" lifestyle development within the precinct while ensuring that appropriate Riverside Farm amenity is maintained.	Provide for a hillside lifestyle development within the precinct with building platform and use earthwork, building, and landscape designs to integrate development into the landscape while ensuring that appropriate Riverside Farm amenity is maintained.	Provide for a hillside lifestyle development within the precinct with building platform and use earthwork, building, and landscape designs to integrate development into the landscape while ensuring that appropriate Riverside Farm amenity is maintained.
<b>Key features of this precinct</b>	Entrance into the Riverside Farm next to the Riverside Farm Café. Café contained in a separate block with landscaping as approved by existing consent.	Retain views out to the north-west to add visual amenity to the overall design of the upper valley lots.	Building areas defined to ensure integration with the landform, separation from the SNA and adjoining neighbours, maximising views out into the Mangaroa Valley, reducing the dominance of earthworks for building platforms and designing building to integrate into the landscape.	Building areas defined to ensure integration with the landform, separation from the SNA and adjoining neighbours and maximising views out into the Mangaroa Valley, reducing the dominance of earthworks for building platforms and designing building to integrate into the landscape.
<b>SNA vegetation</b>		Avoid unnecessary disturbance of SNA vegetation ensuring protection and future management.	Avoid unnecessary disturbance of SNA vegetation ensuring protection and future management.	Avoid unnecessary disturbance of SNA vegetation ensuring protection and future management.
<b>SNA and Mangaroa River vegetation Fencing</b>	Riparian edge of Mangaroa River fenced and protected prior to site development taking place to avoid unnecessary disturbance to the river edge and existing native trees.	Fence SNA vegetation prior to site development taking place. Riparian edge fenced and protected prior to site development taking place to avoid unnecessary disturbance to the river edge and existing native trees.	Fence SNA vegetation prior to site development taking place. Riparian edge fenced and protected prior to site development taking place to avoid unnecessary disturbance to the river edge and existing native trees.	Fence SNA vegetation prior to site development taking place. Riparian edge of Mangaroa River fenced and protected prior to site development taking place to avoid unnecessary disturbance to the river edge and existing native trees.

<b>Indigenous Planting</b>	Enhancement indigenous planting.	Use suitable indigenous planting to connect SNA vegetation and enhance watercourses.	Use suitable indigenous planting to connect SNA vegetation and enhance watercourses.	Use suitable indigenous planting to connect SNA vegetation and enhance watercourses.
<b>Natural Streams and Watercourses</b>	Natural streams, watercourses are to be protected and enhanced through fencing, riparian planting and exotic weed removal (where possible).	Natural streams, watercourses are to be protected and enhanced through fencing, riparian planting and exotic weed removal (where possible).	Natural streams, watercourses are to be protected and enhanced through fencing, riparian planting and exotic weed removal (where possible).	Natural streams, watercourses are to be protected and enhanced through fencing, riparian planting and exotic weed removal (where possible).
<b>Roadway</b>	Formal Avenue and tree planting reinforcing the roadway.	Formal Avenue and tree planting reinforcing the roadway.	Integration of the access roads, outside areas and buildings within the landscape to minimise earthworks (both volume and area).	Integration of access roads, outside areas and buildings within the landscape to minimise earthworks (both volume and area).
<b>Building design and integration into the landscape</b>	Low level buildings that are visually integrated into the landscape.	Low level Buildings that are visually integrated into the landscape.	Design buildings with a diversity of styles with small platforms or built to sit within the landscape.	Design buildings with a diversity of styles with small platforms or built to sit within the landscape.
<b>Retaining structures and Batters</b>			Locate retaining structures and batters near buildings to minimise their visual effects	Locate retaining structures and batters near buildings to minimise their visual effects.
<b>Flood intentions</b>	Reliance on Rural Valley Floor and flood hazard rules			
<b>OUTCOMES</b>				
<b>Streams and Mangaroa Rive</b>		Natural streams, watercourses are protected and enhanced through fencing and riparian planting.	Natural streams and water courses are protected and enhanced through fencing and riparian planting.	Mangaroa River edge and watercourses are protected and enhanced through fencing and riparian planting.

<b>Tree planting, SNA and native vegetation</b>	Tree and shrub planting appearance similar to existing valley floor development. Low to medium height trees along the eastern boundary to screen views of the Riverside Farm subdivision from adjoining lifestyle dwellings.	Retention of SNA vegetation through fencing and protection measures.	Retention of SNA vegetation through fencing and protection measures prior to site development taking place.	Retention of native vegetation through fencing and protection measures prior to site development taking place.
<b>Building forms and neighbours views</b>	Building areas designed to ensure visual impacts with adjoining neighbours are reduced, and reduce the visual height dominance of multilevel buildings	Building areas designed to ensure visual impacts with adjoining neighbours are reduced, and reduce the visual height dominance of multilevel buildings	Building areas defined to ensure integration with the landform, separation from the SNA and adjoining neighbours and maximising views out into the Mangaroo Valley.	Building areas defined to ensure integration with the landform, separation from the SNA and adjoining neighbours and maximising views out into the Mangaroo Valley.
<b>Retaining structures and Batters</b>			Design and position of the driveway, building platform and outdoor living areas to minimise earthworks and retaining structures.	Design and position of the driveway, building platform and outdoor living areas to minimise earthworks and retaining structures.
<b>Landscape plan requirements</b>	Landscape plan requirements formal in nature to reinforce the main road entrance (e.g. avenue of trees) and surrounding the residential dwellings or indigenous planting to enhance natural ecological features of Mangaroo River and any remaining indigenous vegetation. Screening planting along north-eastern boundary.	Landscape plan requirements formal in nature to reinforce the main road entrance (e.g. avenue of trees) and surrounding the residential dwellings or indigenous planting to enhance SNA vegetation or natural ecological features of Mangaroo River and any remaining indigenous vegetation.	Landscape plan requirements on batter slopes, around and behind the buildings to integrate any building structures into the landscape and for the indigenous planting to enhance SNA vegetation or natural ecological features of Mangaroo River and any remaining indigenous vegetation. Landscape plan to consider placement and direction of outside lighting.	Landscape plan requirements on batter slopes, around and behind the buildings to integrate any building structures into the landscape and for the indigenous planting to enhance SNA vegetation or natural ecological features of Mangaroo River and any remaining indigenous vegetation. Landscape plan to consider placement and direction of outside lighting.

<b>Building design and integration into the landscape</b>	Design to reduce the visual height dominance of multilevel buildings	Design to reduce the visual height dominance of multilevel buildings	Low profile buildings located on a small platform and designed to sit into the landscape or a collection of similarly designed smaller building forms with similar materials arranged up or down a slope.	Low profile buildings located on a small platform and designed to sit into the landscape or a collection of similarly designed smaller building forms with similar materials arranged up or down a slope.
<b>Colour and reflectivity of the building</b>			Darker non-reflective building materials, textures and colours compatible with the surrounding rural landscape.	Darker non-reflective building materials, textures and colours compatible the surrounding rural landscape.
<b>Building positions and landscape planting for solar gain</b>	Building position and landscape planting to maximise passive solar gain	Building position and landscape planting to maximise passive solar gain.	Building position and landscape planting to maximise passive solar gain.	Building position and landscape planting to maximise passive solar gain
<b>Flood outcomes</b>	Building position to minimise potential flooding risk from Mangaroo River.			
<b>GUIDELINES</b>	<b><i>When deciding on consent applications within this precinct the following guidelines apply:</i></b>			
<b>Type of Precinct subdivision</b>	Ensure that the density of development is similar to the existing the rural valley floor zoning.	Ensure that the density of development is similar to the existing Katherine Mansfield Drive lifestyle zone.	Hillside lifestyle with variable density dependent on the topography and landscape features.	Hillside lifestyle with variable density dependent on the topography and landscape features.
<b>Natural Streams and Watercourses</b>	Maintain and enhance natural streams and watercourses (if present).	Maintain and enhance natural streams, watercourses and SNA vegetation (if present).	Maintain and enhance natural streams, watercourses and SNA vegetation (if present).	Maintain and enhance natural streams, watercourses and SNA vegetation. (if present).

<b>Visual impact of buildings</b>	Maintain a visual separation between neighbouring dwellings and high activity areas. OR When identifying the position of house and farm buildings consider the relationship with the adjoining neighbours to minimise visual reverse sensitivity.	Maintain a visual separation between neighbouring dwellings and high activity areas.	Consider reducing the visual impacts of buildings through location and design and surrounding landscape treatment.	Consider reducing the visual impacts of buildings through location and design and surrounding landscape treatment.
<b>SNA Vegetation</b>		Protect SNA vegetation through fencing and other protective measures, prior to site development taking place.	Protect SNA vegetation through fencing and other protective measures, prior to site development taking place.	Protect SNA vegetation through fencing and other protective measures, prior to site development taking place.
<b>Earthworks</b>	Consider level building platforms.	Consider level building platforms.	Consider the position and design of the driveway, buildings, structures and outdoor living areas to follow the lie of the land to minimise earthworks and retaining structures.	Consider the position and design of the driveway, buildings, structures and outdoor living areas to follow the lie of the land to minimise earthworks and retaining structures.
<b>Building design and intergration into the landscape</b>	Consider low-profile buildings styles and forms designed to sit into the landscape and reduce the height visual dominance of buildings in the Lower Valley Sites	Consider low-profile buildings styles and forms designed to sit into the landscape and reduce the height visual dominance of buildings in the Upper Valley sites.	Consider low profile buildings located on a small platform and designed to sit into the landscape or a collection of similarly designed smaller building forms with similar materials arranged up or down a slope.	Consider low profile buildings located on a small platform and designed to sit into the landscape or a collection of similarly designed smaller building forms with similar materials arranged up or down a slope.
<b>Batter slopes</b>			Consider using landscape planting on batter slopes around and behind buildings to anchor structures into the landscape and reduce the visual dominance of the buildings and earthworks.	Consider using landscape planting on batter slopes around and behind buildings to anchor structures into the landscape and reduce the visual dominance of the buildings and earthworks.



<b>Colour and reflectivity of the building</b>		-	Consider darker non-reflective building materials textures and colours to complement be compatible with the surrounding rural landscape.	Consider darker non-reflective building materials textures and colours to complement be compatible with the surrounding rural landscape.
<b>Building positions and landscape planting for solar gain</b>	Consider locating buildings and landscape planting in a position to maximise passive solar design.	Consider buildings and landscape planting in a position to maximise passive solar design.	Consider buildings and landscape planting in a position to maximise passive solar design.	Consider locating buildings and landscape planting in a position to maximise passive solar design.
<b>RULES</b>				
<b>Flood</b>	Rural Valley Flor and Flood Hazard approval			
<b>Landscape plan</b>	Landscape plan approval.	Landscape plan approval.	Landscape plan approval.	Landscape plan approval.
<b>SNA Plan</b>		SNA plan approval.	SNA plan approval.	SNA plan approval.

**Attachment 8: Engineering Assessment**



## **New Zealand Environmental Technologies Ltd**

Phone: (04) 526 4109, (04) 5267589; Fax: (04) 526-4190; Mobile: 0274 492 837  
81 Gillespies Road, PO Box 40-339 Upper Hutt, Wellington  
Email: office@nzet.net.nz; Internet Homepage: www.nzet.net.nz

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# **52 Mangaroa Valley Road – Riverside Farm Proposed Plan Change and Subdivision Engineering Report**

Prepared for Phil and Coral Kidd

DATE: 6 August 2020  
AUTHOR: Stu Clark CP Eng  
REPORT STATUS: Final

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# 1 Background

This report has been prepared to support a private plan change request and associated subdivision of a 77.8 ha site in Mangaroa Valley with a nominal street number of 52 Mangaroa Valley Road. The proposed plan change/subdivision area is to be known as Riverside Farm. It is intended to subdivide Riverside Farm into 30 separate lots of various sizes ranging from 1ha to 8ha in size. The 30 lots are to be encapsulated in four zones: Zone One - Café and Lower Valley, Zone Two Upper Valley, Zone Three Eastern Hills, and Zone Four Southern Hills.

This report should be read in conjunction with the associated documents:

- Private plan change application to the Upper Hutt operative District plan 13 January 2018 by Ian Stewart consultant planner,
- Riverside Farm landscape assessment 2018, September 30, 2018 Yvonne Weeber.

The area of the farm and the nominal zones encompassed by the different areas are shown in figure 1 below.

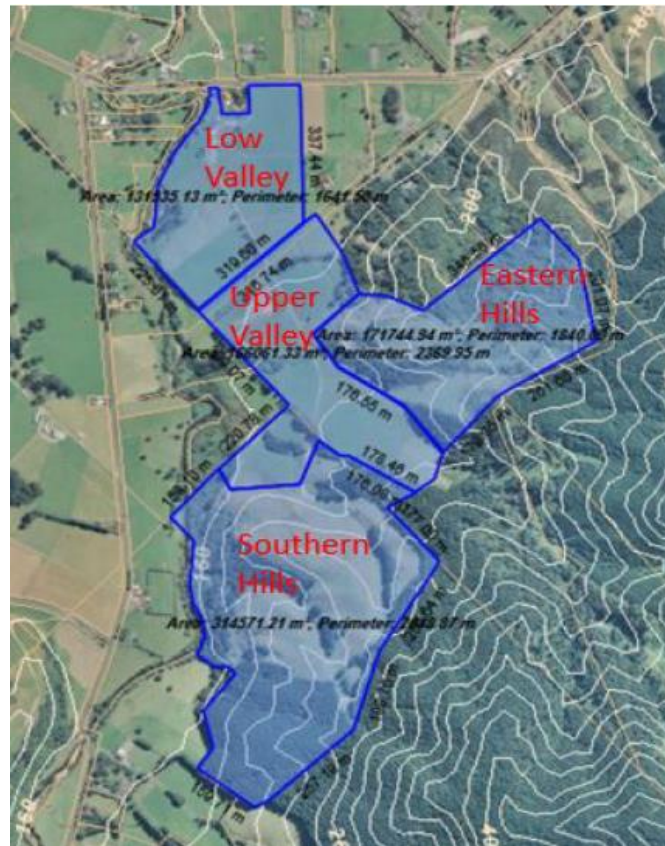


Figure 1. Proposed division of the site into four distinct zones

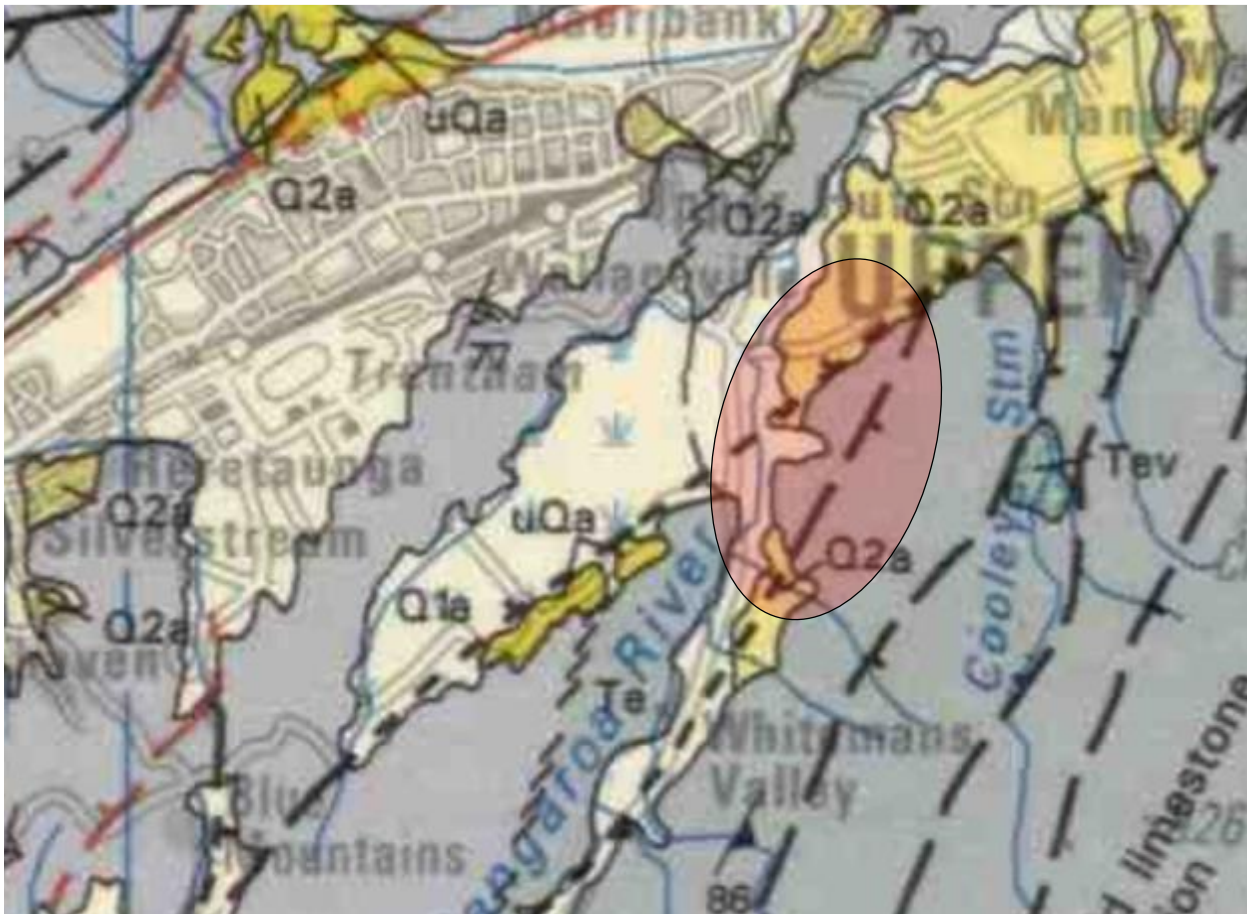
The brief for this report was received from Ian Stewart, Consultant Planner. It is to report on;

- Internal Roading structure, location and design
- Servicing feasibility assessment; water supply, stormwater and wastewater disposal
- Hail and contaminated site assessment,
- Flooding
- Earthworks design criteria.

## 2 Site Characteristics

### 2.1 Geology

Figures 2 and 3 below show the site Geology as indicated in the GNS 1:250,000 Webmap GIS database. Figure 2 below, (with the subdivision area highlighted), shows the key local geological features and classifications as being; alluvium around the low-lying river flats, and Greywacke bedrock on the elevated parts of the site.



**Figure 2. Geological context of the site - source GNS 1:250,000 Q map.**

A more detailed inspection, taken from the online GIS system, identifies three distinct geological units on the site; Late Pleistocene (>12,000 yrs. old - shaded yellow), poorly / moderately sorted alluvial

deposits – (gravel, sand, silt), on the northern flats; Holocene, (< 12,000 yrs. old – shaded white), well sorted floodplain gravels on the western (river), side, and; bedrock of sandstone / mudstone with blocks of chert, limestone and basalt – coloured blue- green), on the hill country – figure 3.

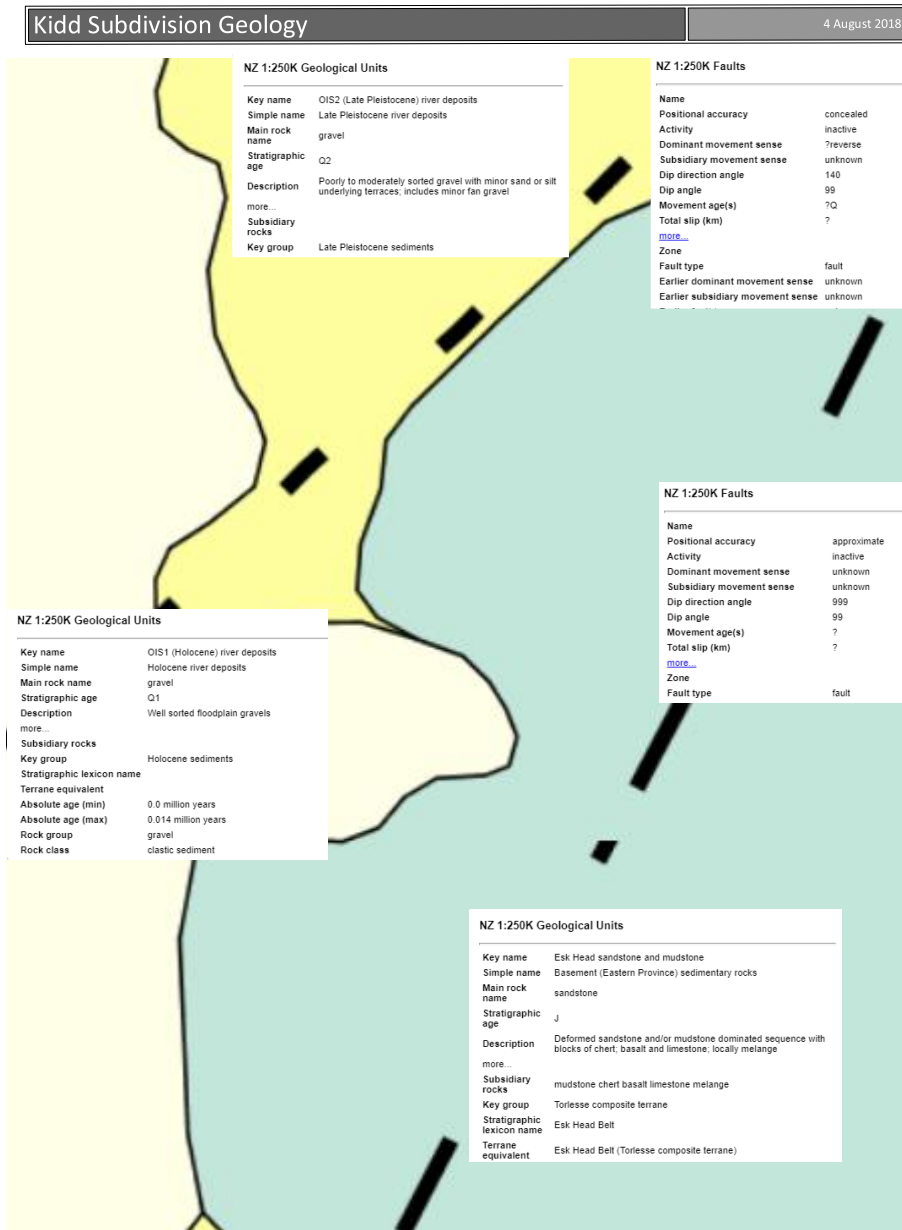
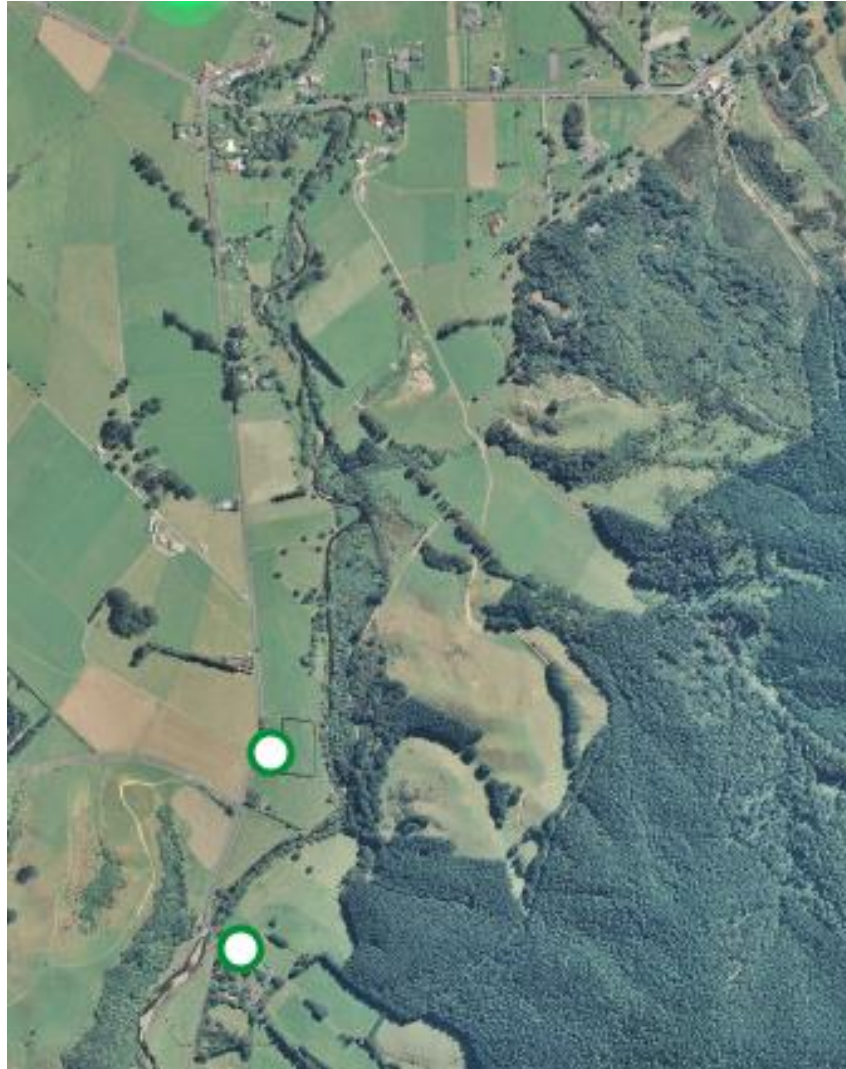


Figure 3. Detailed site geology – GNS geology web map.

There are no logged ground investigation bores on the upper levels of the site, with current geotechnical investigations having been limited to inspection of cut faces exposed during construction of farm tracks. Based on these, and other investigations and cuts undertaken in the general area, it is expected that the bedrock will be located at depths of between 1m to 4m below current ground level.

There is a logged bore located just outside the land to be subdivided, the lower green circle in Figure 4 below. This represents strata which is generally consistent with test pits undertaken by NZET at the northern end of the site and follows the “river flat” profile of silt loam soils over gravels.



**Figure 4. Location of nearest logged bore – (lower green circle) - source New Zealand Geotechnical Database.**

This bore was drilled in 2009. Presumably for the purposes of obtaining groundwater. The drillers log is shown in figure 5 below.



### Borelog for well R27/7392

Gridref: 1775441.5442319

Ground Level Altitude +MSD

Driller : GRIFFITHS DRILLING COMPANY LTD

Drill Method :

Drill Depth : 12.50m Drill Date : 15/10/2009 12:00:00 a.m.

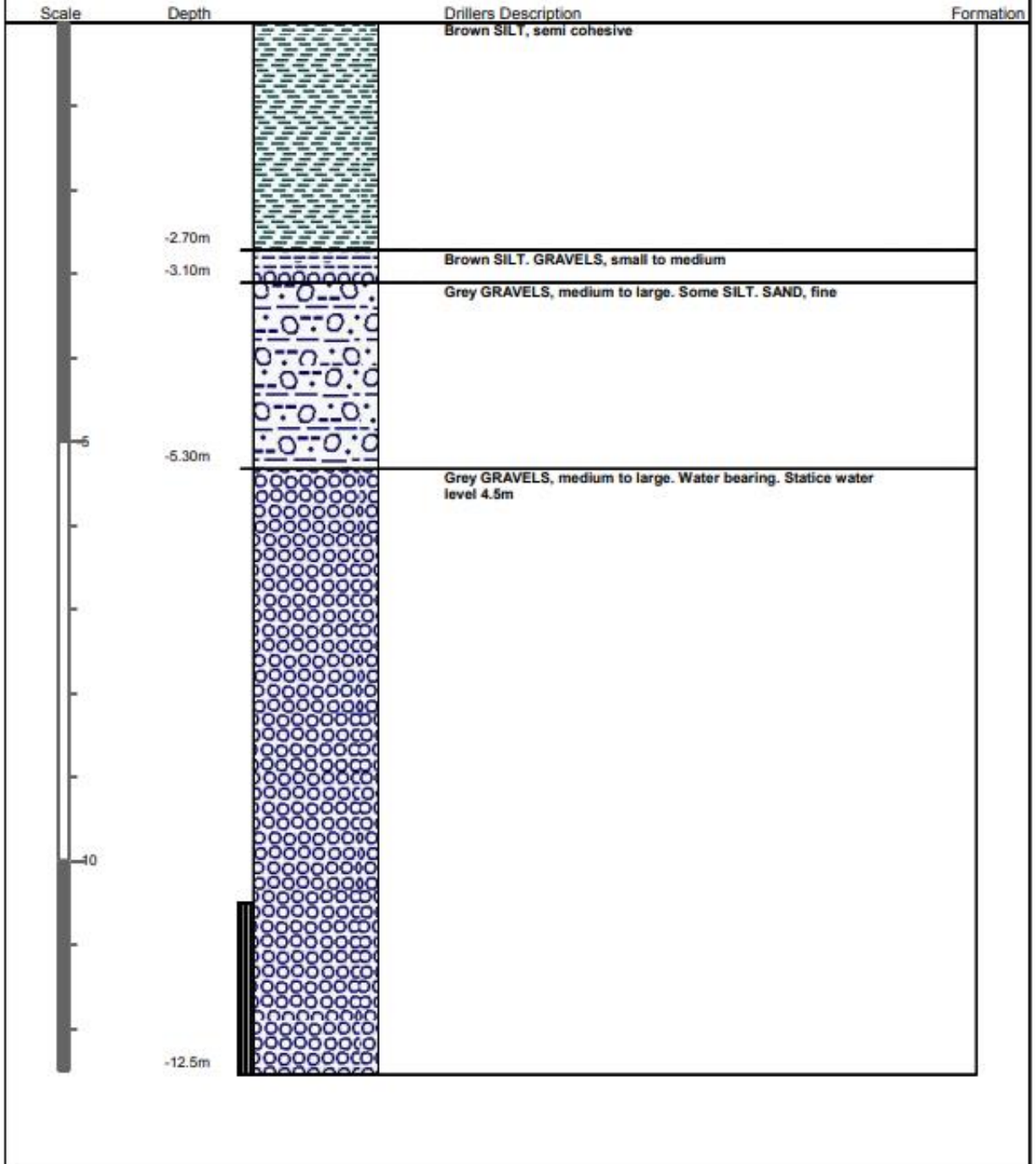


Figure 5. 2009 bore log – bore located in Holocene river deposits to the immediate west of the site.

## 2.2 Seismic

Two inactive faults traverse the site and intersect immediately to the north, as shown by the dashed black lines in figures 2 and 3 above. The nearest active faults are located 5km to the west, (northern end of the Whiteman's Valley Fault), and 4km to the north west, (Wellington Fault). The Wellington Fault can produce a moment magnitude 7.5 event at an 840-year return interval, with an estimated 5m single event displacement. The Whiteman's Valley fault can produce a moment magnitude 7.0 event at an 19,500-year return interval, with an estimated 2m single event displacement. Although within close enough proximity of the two active faults for there to be some influence from near fault effects, by comparison with many sites in the Hutt Valley, the site in general should be considered relatively lightly exposed to seismic risks.

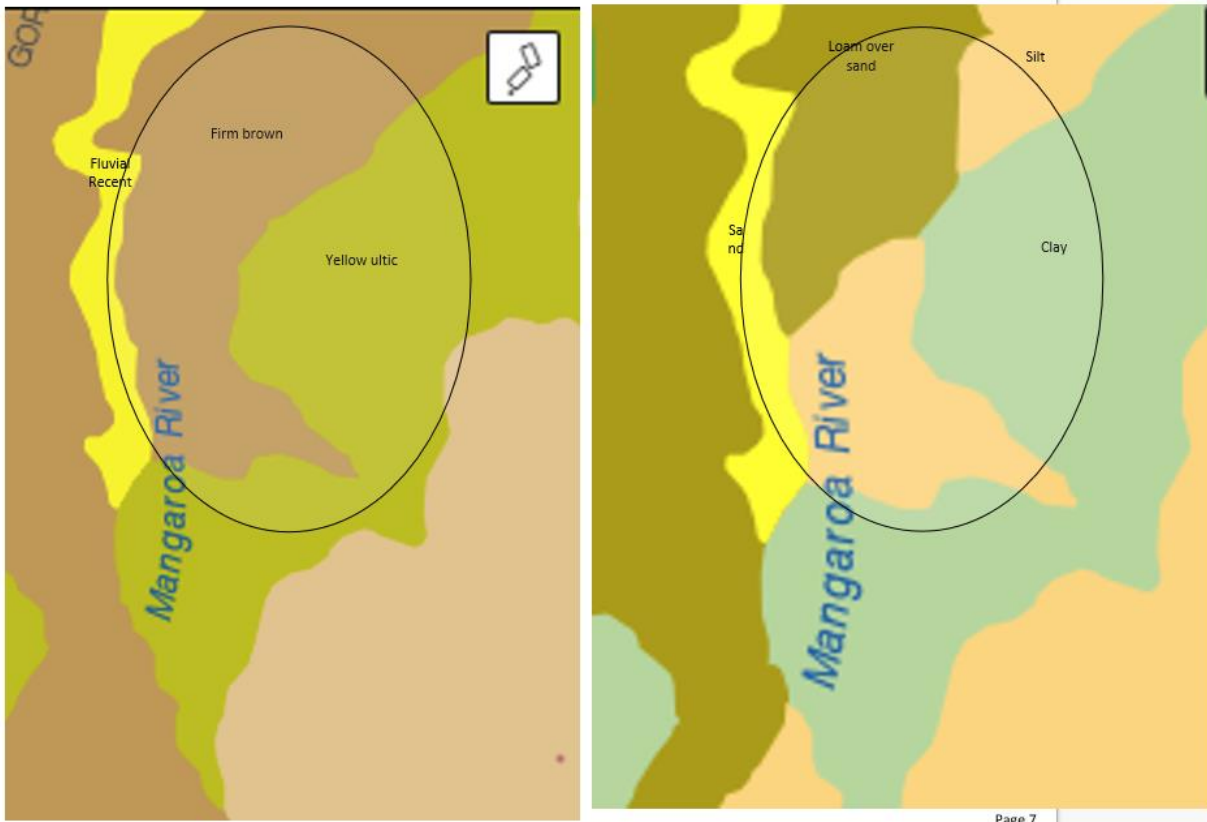
This is supported by the (estimated), extension of the GW GIS seismic hazard classes shown in figure 6 below.



**Figure 6. GW GIS Seismic hazard mapping - inferred risk for subdivision areas; from top left; combined – moderate; ground shaking – low/moderate; liquefaction – nil on hill slopes and slight on valley floor; - slope failure – low on valley floor and moderate on hill slopes.**

### 2.3 Soils

As with the geology, the GIS databases shows there are several distinctly different soils present on the site. Immediately adjacent to the Mangaroa River, and primarily outside of the site boundaries, the soils are fluvial recent, with particle sizing of sand. On the northern and western areas of the site, the soils are firm brown, with particle sizing of loam over sand and silt, and on the steeper more elevated areas to the east the soil type is yellow Ultic, with particle sizing of clay. These areas and classifications are shown in figure 7 below.



**Figure 7. Soil classifications, (left), and particle size (right), for soils over the area of the proposed development.**

Some reasonably extensive testing has been undertaken in the alluvial flats in the northern area of the site, for the purposes of investigation and design of an on-site wastewater treatment and disposal field for the proposed café. Figure 8 below shows the soil profile identified during these investigations.

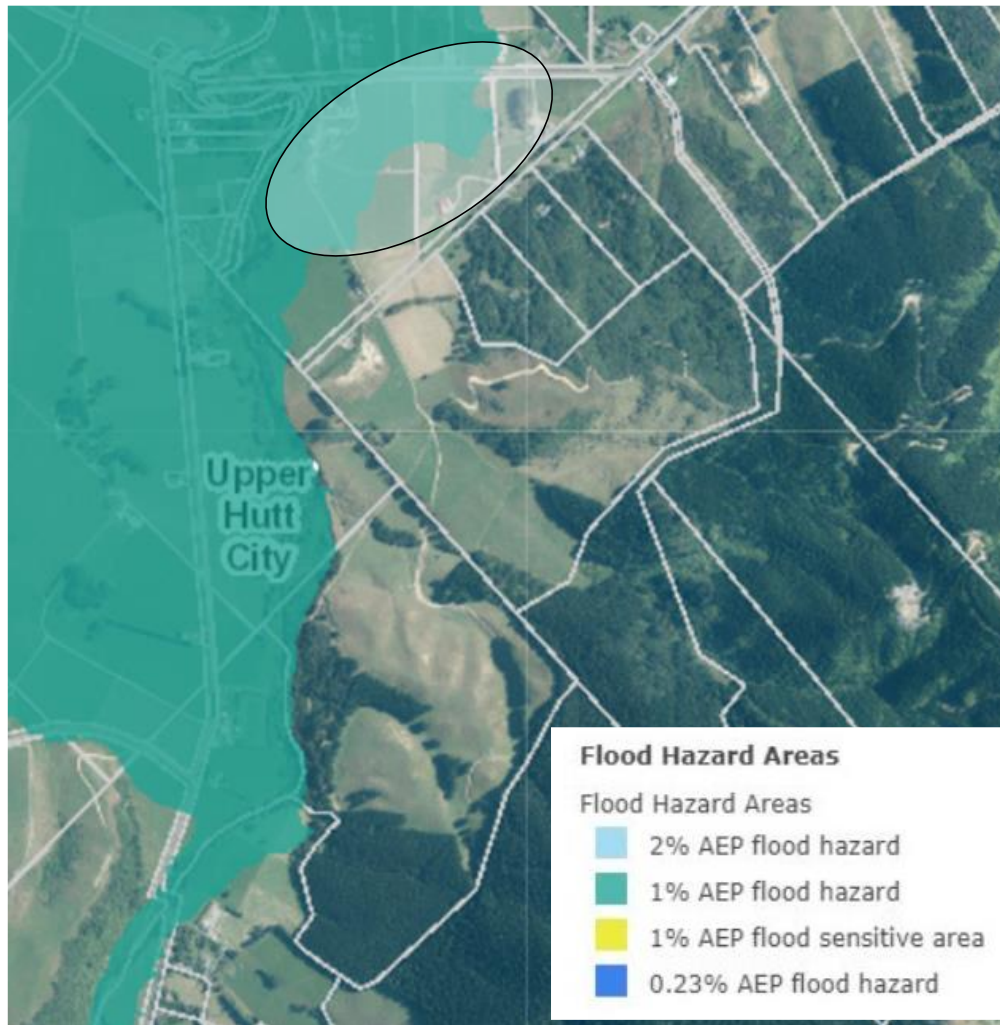


**Figure 8.** Test pits in the northern end of the proposed subdivision site on the alluvial flats. Soil profiles were consistent with the GIS database soils and geological descriptions and provided 0.8-1.2m of a medium brown silt loam topsoil/ surface layer, underlain by relatively free draining alluvium. The soil moisture content was relatively low compared to field capacity, despite the samples having been taken mid-winter with moderate antecedent rainfall.

## 2.4 Flooding

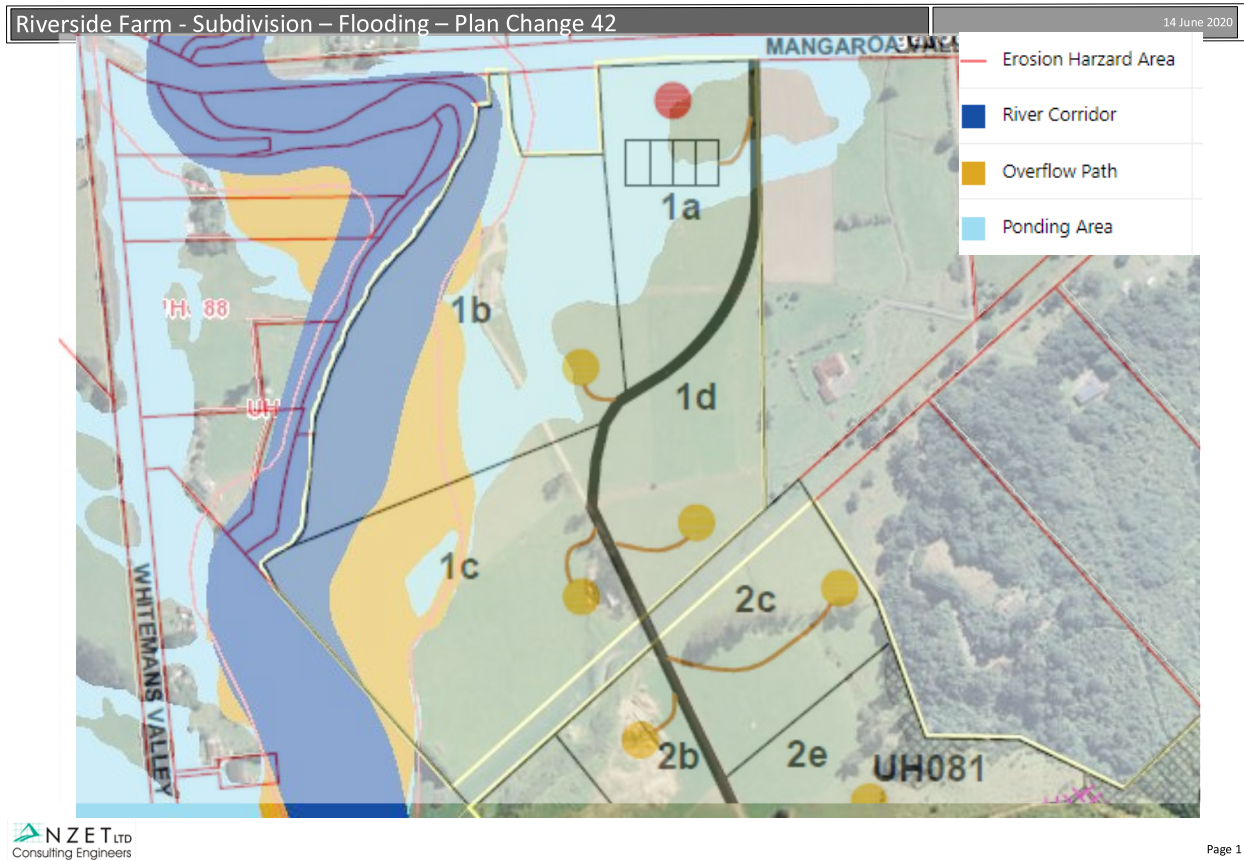
The GW GIS and UHCC Plan Change 42 Flood Mapping shows a portion of the northern end of the site to be at risk from flooding in the 1% (1/100-year ARI) event. This is a sufficiently frequent event that it needs to be given consideration with respect to development of some of the northern sections.

The property owner, however, who with his family has been associated with this area for well over 150 years, has noted that he has never seen nor heard of any flooding in the areas shown, although there have been several events over the course of that occupancy with a notional return frequency of greater than 1/100 yrs. It is also interesting to note that the GW database, which purports to have photographs of flood events, has no photographs of flooding in this area.



**Figure 9. Zone on the northern river flats which is claimed to be susceptible to flooding in the 1% AEP event.**  
*Source GW GIS Flooding Map.*

Upper Hutt City Council’s plan change 42 (proposed), for the Mangaroa area identifies a similar portion of the northern area as being subject to flooding, in an (unspecified on the map), return interval event. The map also identifies an erosion hazard, (red line adjacent to the river channel). The proposed site development plan is shown in figure 10 below, overlaid on the current plan change 42 Map of the northern area.



**Figure 10. UHCC GIS Flood Mapping – Plan change 42. Area of the northern flats shown as influenced by flooding.**

Reference to figure 10 shows, Lots 1a, (café), 1b and 1c, and the main access road potentially influenced by flooding, and an erosion hazard area bordering the steeper riverside banks, running through lots 1b, 1c, and some additional properties further to the south.

Sections which have river corridor, or overflow path land designations running through them, (1b and 1c), also have steep riverbanks delineating those areas. It is proposed that a building and development restriction would be applied to a reasonable offset distance from the current true right river bank, (say 30m), which would ensure that no buildings were placed at direct risk from flooding, and no land development, e.g. earthworks, tracking, occurred which had the potential to increase the rate of gradual or flood event initiated erosion within that zone. Sections which have notionally designated building areas within or close to the plan change 42 designated ponding areas, have 2 options, to move the building site outside the ponding zone, (note this is to be the preferred option, it already applies to

section 1c, and would only require a slight change to the notional build site on sections 1b and 1a. Alternatively, there is provision under sections 71 - 73 of the building act for a building consent to be granted for building on land subject to natural hazards, including ponding, if the council is satisfied that in doing so the hazard level will not be increased, the building can be appropriately protected, (in this case that would be by elevating the floor above the predicted flood level by an adequate safety margin, and the building owner consents to a notice be placed on the property title which may influence insurability or insurance costs. In the case of Lot 1a specifically, it appears that a slight shift in both the Café and carpark locations would move them out of the ponding zone and a piled walkway could then connect the two, although the level of patronage of the café which would likely occur during an event which would produce this level of flooding is not likely to be great.

The impact of ponding on the proposed main access road is not considered to be of great significance, as a similar level of ponding is also indicated on Mangaroa Valley Road and so addressing the on-site roading ponding would only limit the available ponding area (albeit very slightly), and would make no practical difference to anyone seeking to access the site.

With respect to areas where the erosion hazard on the true right riverbank is indicated further to the south of the northern flats, on the hilly site areas, the lower site access road is elevated some 15m above river level, however; the river channel is not currently located directly at the base of this bank, conditions at the level of the proposed lower access road are stable weathered greywacke, and the bank is also well vegetated with some existing trees of estimated age 50+ years, all as shown in figure 11 below.



***Figure 11. (top), ground conditions on lower access road to southern subdivision areas, and (bottom) aerial view of stream channel, lower access road, and bank vegetation.***

It is therefore proposed that the erosion hazard issue will be addressed during the detailed design by the following measures; close up survey of the bank geology and current conditions including risk of further erosion, providing, if required, following this survey, an increase in designated road width to allow for any potential further erosion, downhill bank side planting if required to both stabilise the top of bank and act as a vehicle barrier, ensure any streams / roadside drains are controlled so as not to exacerbate erosion or erosion potential.



There is no GIS sourced information regarding flooding on the small tributary streams which pass through the property, however, given their relatively steep gradient and defined channels it is extremely unlikely that a high intensity event would result in anything more than a short-term modest increase in the wetted margins of these streams, (as opposed to widespread flooding), and some localised increase in sediment transport. The various photographs of the site given in appendix A, demonstrate that the stream channels and margins are relatively stable and do not appear to be aggrading or degrading to any marked degree.

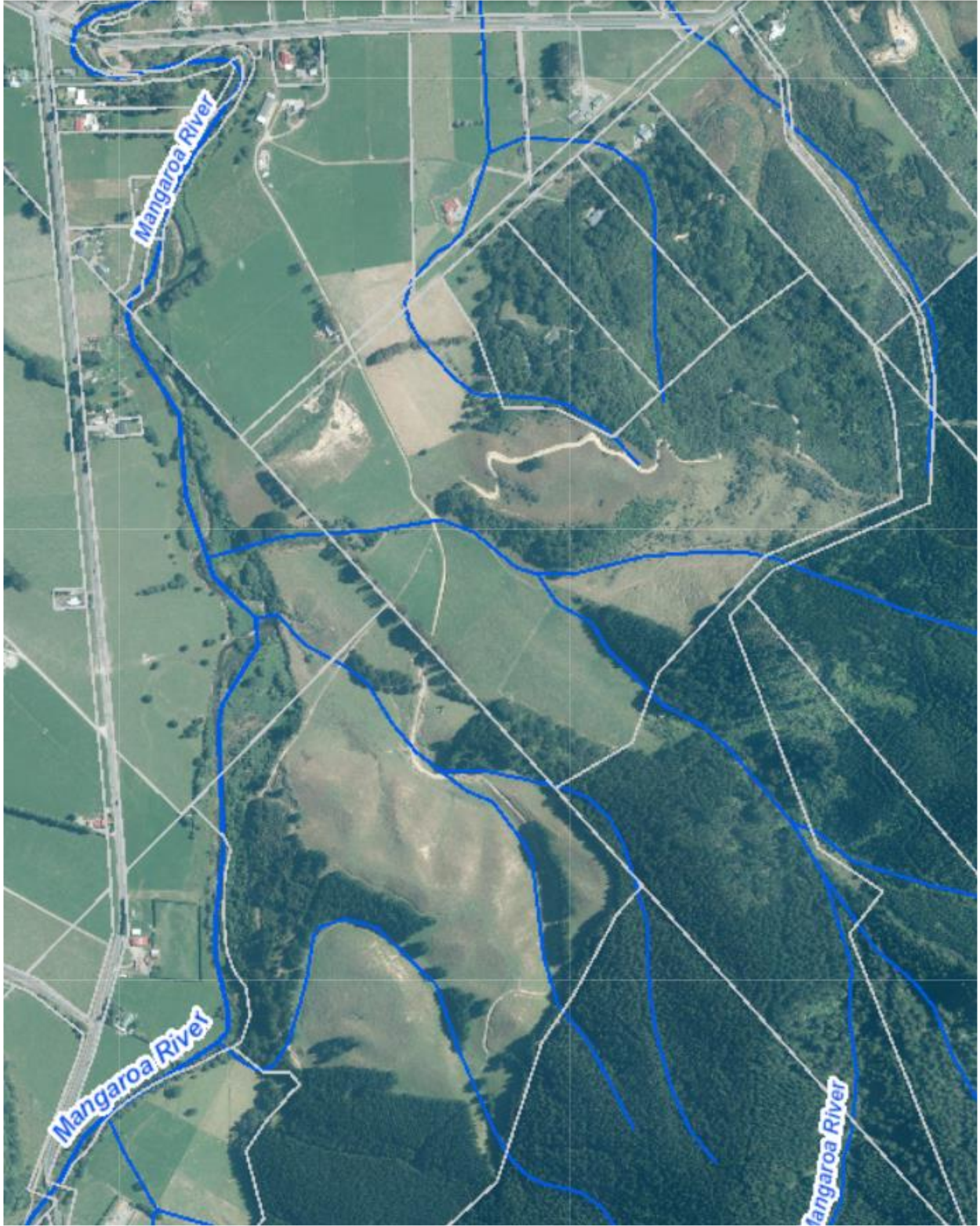
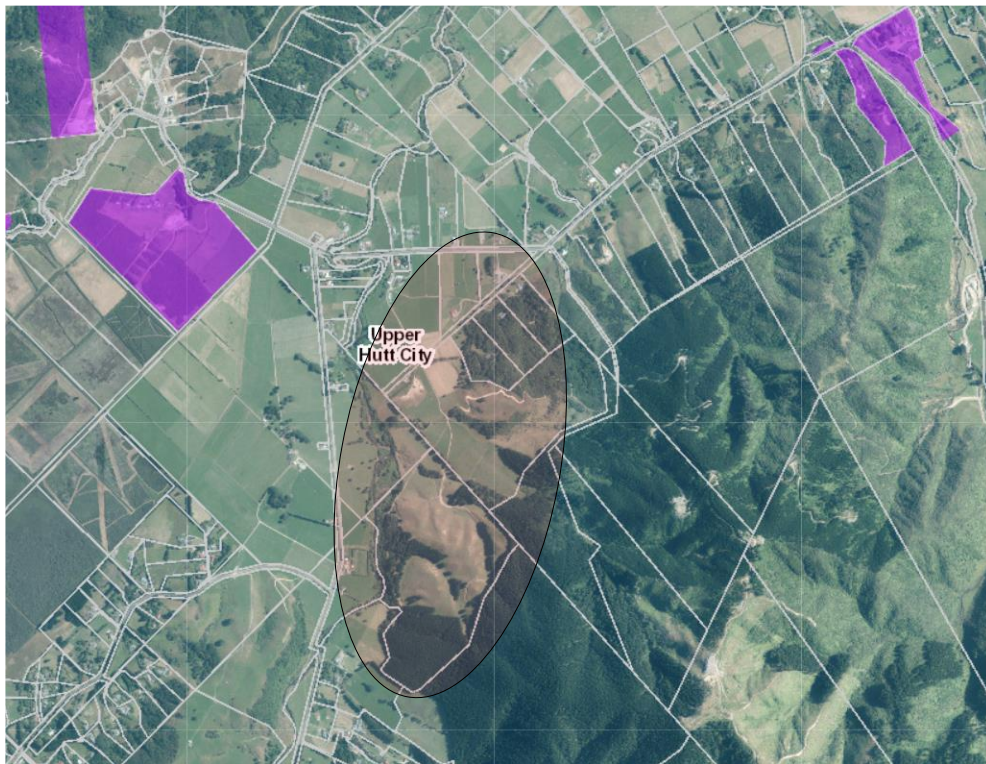


Figure 12. Tributary streams to the Mangaroa River passing around and through the property – source WCC GIS.

## 2.5 Site Contamination

Figure 12 shows the contaminated sites in the vicinity which are registered on Greater Wellington's contaminated site database. These are from left to right, an extension of the Maidstone Nursery site where activities occurred on the other side of the Mangaroa Hill, the gun club, a private tip site, and a site used for storage of fertiliser chemicals. These are all well removed from the Riverside Farm property.

The land to be subdivided is rather unique in that it has been in the same ownership from the time of initial European settlement. The current owners therefore have an extensive history and knowledge of the property going back through the generations for 150 years. On detailed enquiry, the property has always been used for farming by animal grazing. Although this is a relatively innocuous land use, there will often have been some HAIL activities associated with classical grazing farming - for example, sheep dips, underground fuel tanks, agri-chemical storage and use, stock effluent ponds and disposal of stock effluent. On enquiry however, none of these activities has occurred on the proposed subdivision site. It is also not immediately adjacent to any other known contaminated site and is not listed on GW's SLUR register, (as shown in figure 13 below). There is therefore no reason to undertake further site contamination investigations.



**Figure 13. Identified contaminated sites on the GW SLUR (selected land use register).**

## 2.6 Wind Zoning

A factor to be considered in the development of the more exposed elevated lots is the wind zoning and the concern that the more exposed proposed building sites may exceed conventional NZS 3604 limits of extra high wind zoning – 55m/s. As can be seen from the wind zoning maps below, the site is inside zone A, and is also outside any lee zones. A walkover inspection of the site by an experienced structural engineer in conjunction with the land owners' observations over many decades did not identify any specific areas on the site which would represent wind channels creating localised elevated wind speeds in excess of those calculated under NZS 3604 or NZS 1170.



**Figure 14. Regional wind zoning and site location.**

With appropriate building location site selection, i.e. not sitting immediately on top of the most exposed ridge on the individual lots, it is therefore considered that most of the building sites proposed will fall in the H to VH range with some possibly extending to EH. Most of the proposed subdivision area is shown as High under the Upper Hutt City Council wind zoning map with the more elevated land as SED (specific engineering design), refer figure 14 below, although UH City Council advise that these zones are indicative only and recommend that specific assessments be undertaken for all lots either using the methodology of NZS 3604 or for the more demanding sites - NZS 1170.



Figure 15. Upper Hutt City Council wind zoning; (high to SED).

## 2.7 Land stability

A review of the Greater Wellington GIS database, in conjunction with a site walkover by an experienced civil engineer and engineering geologist, have not identified any significant land stability issues. No slips or slip scarps are shown on the database and tracks which have been in place for many decades have shown little if any signs of ongoing cut slope instability.

In the steep areas of the hill sections where the localised slope is in excess of 30°, there have been some very limited and localised signs of surface erosion, probably created by stock activity. A review of aerial photographs dating back to the 1940s did not show any signs of long-term erosion when comparing those to current aerial photographs.

A recent review of the Residential and Rural Chapters of the UHCC District Plan<sup>1</sup> provided an overview of the Geological Hazards for specific areas of Upper Hutt. Part of the proposed subdivision comes within these “review areas” as shown in Coffey’s Map – figure G0. The Coffey conclusions were that “slope instability may occur on the steep greywacke hill slopes. These areas being greater than 26 degrees slope angle require a specific geotechnical assessment by a geo-professional prior to development. As the scale of the Coffey figure identifying areas of high slope hazard does not lend itself to a detailed comparison with the subdivision site, a specific map has been prepared based on Greater Wellington’s

<sup>1</sup> Residential and Rural Chapter Review, Coffey, 773-WLGGE225406AB, 6 March 2020.

slope overlay. This is shown in figure 16 below. As can be seen none of the area falls into even the yellow (21-30-degree slope) zone.

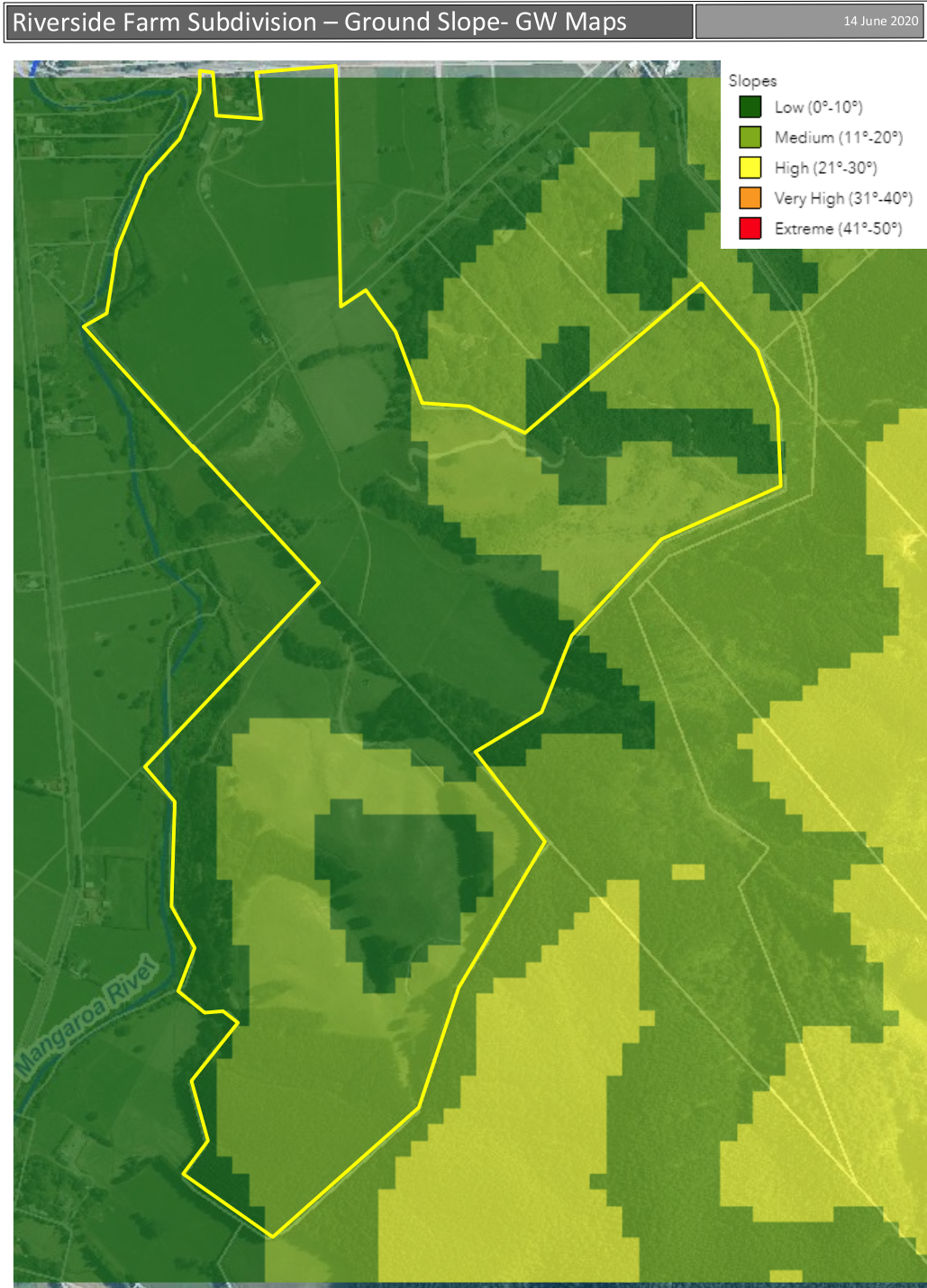
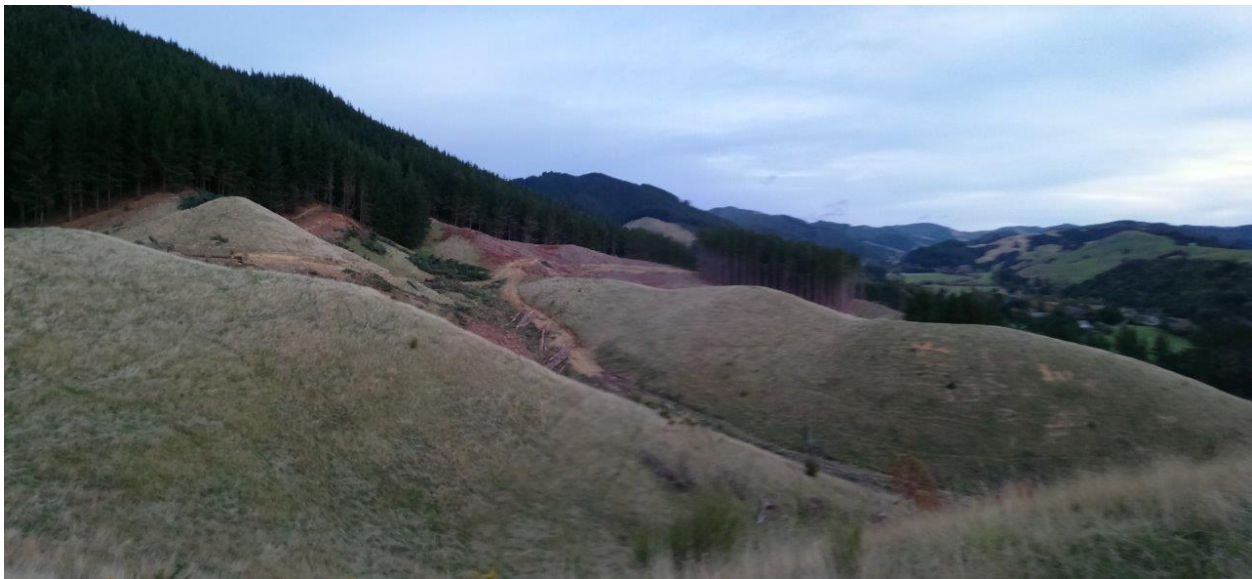


Figure 16. GW GIS Ground slopes in proposed subdivision area, (yellow line).

Additionally, the site has already been inspected by an Engineering Geologist whose development recommendations have been included in this engineering report.

Figure 17 below gives some additional ground slope overview photos.



**Figure 17. Photographs of average ground slopes on cleared land, (post 2020 logging)**

## 3 Servicing Recommendations:

### 3.1 *Roading*

Roading design has been discussed with Andrew Sarniak roading engineer of the UHCC who has nominally accepted the proposed roading infrastructure as a basis for further discussion and refinement. UHCC will entertain alternatives which achieve a similar outcome. This initial layout and design assume that all roads will be privately owned and maintained.

Figure 18 below shows the proposed roading layout. The main access road and separate café access road shown in black would be sealed, constructed to accepted standards to provide a reasonable pavement design life, and be 7m wide, 6m carriageway width. Servicing 30 properties, there would be an estimated 200 vehicle movements per day on that road generated by the subdivision alone, and more for the short section to the cafe.

The purple roads service multiple properties and would need to be a min 3m carriage width with passing bays every 100m (northern roads). They could be gravel up to grades below 1:6 say and surfaced with regrind ac or concrete on steeper grades.

The brown roads could be roughly formed and metalled but would basically be to the landowners' requirements. Where they meet the black (sealed) road, they would need to be sealed or otherwise surfaced for the last 10m or so approaching the property boundary.

In conjunction with the roading, 6 stream crossings will be required, either as new or upgraded. Typically, these are intended to be designed utilising reinforced concrete culverts, with appropriate hydraulic design to accommodate at least a 1:100-year storm event on the upstream catchment, and including abutment armouring and a reinforced (concreted), road surface on the crossing to ensure that overflow in more extreme events did not create washout.



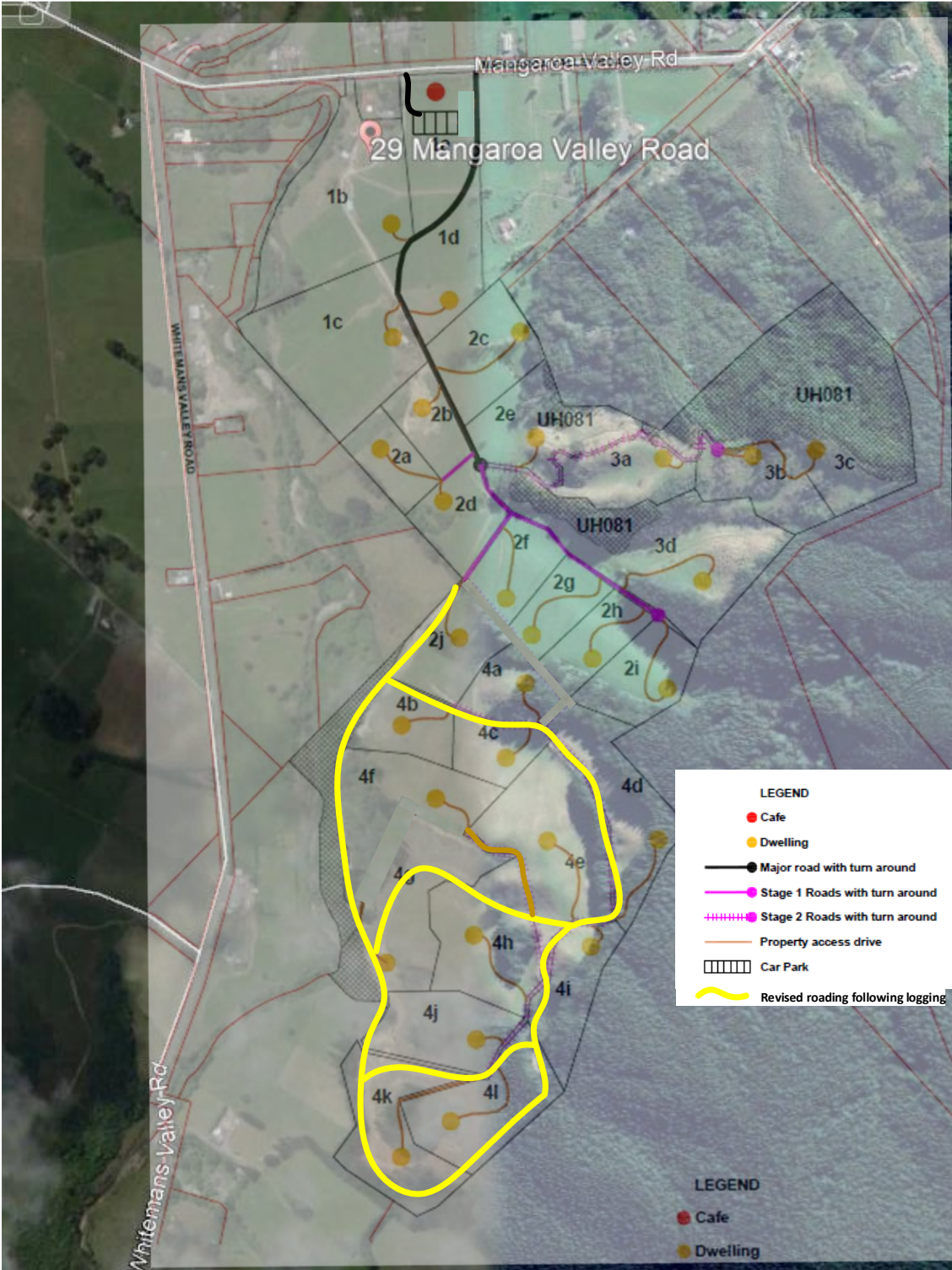


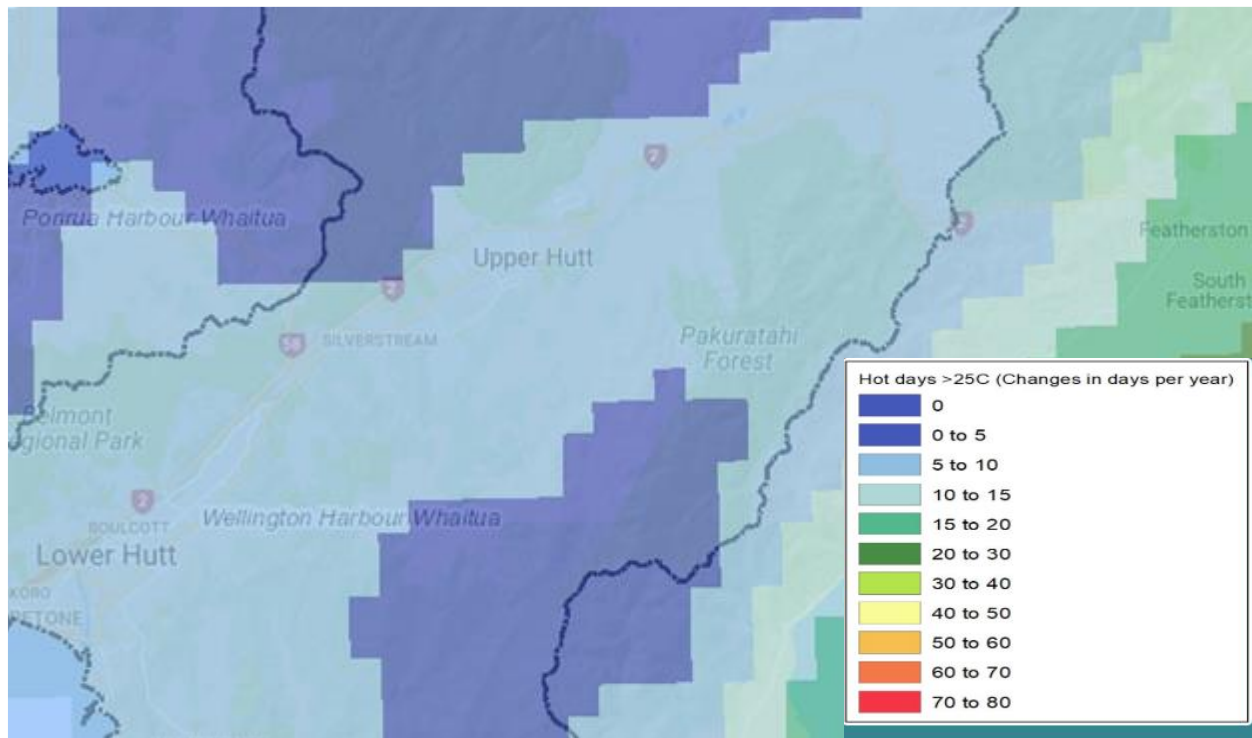
Figure 18. Proposed roding layout.

### 3.2 Water Supply

No reticulated water supply is proposed for the development, therefore potable and other water provisions for individual lots will need to be from roof storage. Typically, storage provisions acceptable to the council and in use throughout the valley have been in the range of 50 to 90 m<sup>3</sup>. In case of an unusually long dry period, deliveries via water cart are available, albeit at a significant cost, (currently approximately \$300 for 10 m<sup>3</sup>).

Some properties have streams, (either permanent or ephemeral), flowing through them, and some border the river, and there are permitted activity provisions in both the current and proposed relevant regional plans for individual property owners to take a modest quantity of water per day from available surface and ground water resources. The only groundwater which could potentially be available will be for the limited number of sections on the Northern Flats (Lower Valley Area), however several other properties may at times be able to access stream or river water.

Looking to the future, the NIWA predictions for climate change effects on the region are documented and shown in GW's GIS database. Figure 19 below shows the predicted increase in the hot days per year (defined as greater than 25°C), for the period 2030 to 2050, under the scenario whereby greenhouse gas levels are moderately restricted.



**Figure 19. Predicted increase in number of hot days per year - 2030 to 2050 - source GW GIS database.**

This identifies that in the proposed subdivision area, under the most likely greenhouse gas scenario, there will be a modest increase in the order of 5 to 15 “hot” days per annum, with associated reduction in available water and increased demand for water for basic domestic needs.

Accordingly, it would appear prudent to specify a minimum of 90 m<sup>3</sup> (3 x 30m<sup>3</sup> tanks), for potable water supply for the subdivided lots. As the Upper Hutt City Council has yet to adopt the fire services code of practice including the requirement for 45 m<sup>3</sup> of dedicated firefighting water to be available for isolated dwellings not serviced by a reticulated water supply, such a provision is not mandatory but is also recommended, so this would increase the recommended supply to 5 x 25m<sup>3</sup> or 30m<sup>3</sup> tanks.

Additionally, with water likely to be stored for an increasing period, water treatment for potable purposes utilising cartridge filtration and UV irradiation is recommended for individual potable supplies.

As several the properties are on steeper land, water storage tanks should be located on good ground, and partially buried, or otherwise structurally supported to ensure that they are not able to move by sliding or overturning during seismic events.

### **3.3 Stormwater**

It is important that stormwater generated especially on the steeper lots is appropriately disposed of. Whilst water from roof catchments can be expected to be harvested into water storage tanks, there will be times when these tanks are full, and the overflow needs to be adequately catered for. Additionally, any hard stand areas may accumulate run-off in high intensity rainfall events and care should be taken to ensure that such water is appropriately directed so as not to become erosion or land instability.

The properties on the lower lying land to the north have been identified as having good ground soakage and stormwater disposal by the standard Upper Hutt City Council recommended rural soak pit, (not requiring the central manhole or the 25year ARI design (as is required of the Upper Hutt city urban soakage pits), is recommended.

For sites which have access to waterways, reticulation of such clean waters directly to the waterway is an available option. If the concentrated flow is coming from areas which are used by vehicles or subject to intense animal stocking, it would be prudent to have such discharges pass through a wetland, or sand bed area rather than discharging directly to the waterway, and it may be that some form of detention, (pond or tank), is desirable in some cases.

In other cases, especially where the concentrated stormwater is generated from access roads, roadside water tables, leading to streams or local road water tables and from there to appropriate discharge points are recommended. In some cases, additional scour protection may be required.

### **3.4 Wastewater**

The proposal for wastewater treatment and disposal is by on-site systems on each individual lot. Factors to be considered in the specification for such systems are;

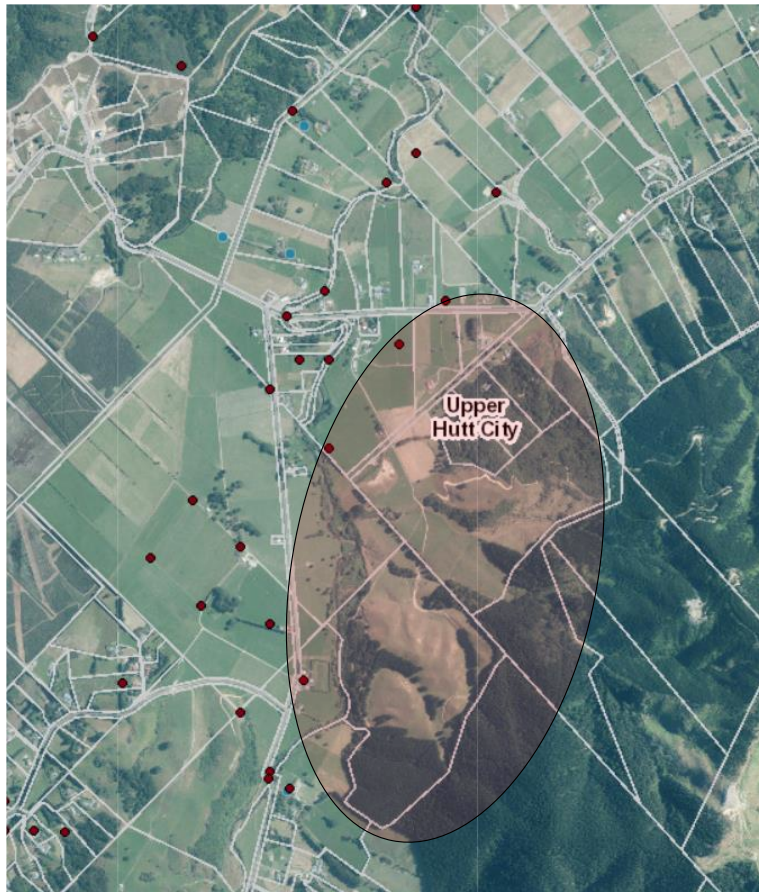
- nature of source waste, which will be domestic and taken from dwellings which are primarily serviced from roof tank water supplies.
- the standard of treatment, which can traditionally vary from a basic septic tank, to a conventional (secondary effluent quality in terms of traditional wastewater treatment

nomenclature), package treatment plant, to a treatment plant with advanced nutrient removal performance, and at the top of the tree, advanced (tertiary treatment), systems with a higher level of organic and solids removal and or with a disinfection step.

- The sensitivity of the receiving environment, with respect to both potential human activity - water supply bores, water recreational activities, harvesting food, and environmental sensitivities - potential impact on flora and fauna, and resulting further impact on human activities for example due to the proliferation of toxic algae.

Figure 20 below shows the environmental consents which are current or have previously been issued for the proposed subdivision area and its primarily downstream environs. The only resource consent identified within the subdivision area is shown on the northern flats and is the applicant's own recently issued consent for a wastewater treatment and disposal system serving the proposed cafeteria.

The other red dots in the immediate vicinity are typically for consents such as a river works, effluent disposal, and similar activities. The blue dots which can be seen to the north west of the proposed subdivision area, are water supply bores drawing from the alluvial flats. Some of these may well be being used for potable water supply.



**Figure 20. Resource consents identified on the Greater Wellington database on and near the site.**

With potentially potable water supply bores being in a relatively close proximity to the subdivision, the moderate intensity of development proposed within the subdivision, and the ongoing development within the valley itself, in spite of the relatively high level of treatment which can be anticipated from disposal to land, it appears prudent to recommend on-site treatment systems incorporating package treatment plants, disposal over a relatively large land area, (typically 400m<sup>2</sup>, as opposed to beds and trenches with basal areas less than 100m<sup>2</sup>), enhanced nitrogen removal performance, in conjunction with a requirement for regular servicing and maintenance, and disposal through near surface laid pressure compensating dripline.

These measures should help to ensure that the both the subdivision sourced contaminant discharge, and the subdivisions' contribution to any cumulative effects from other developments in the valley, remain negligible.

For the design of on-site systems on individual lots, a full site investigation as specified in NZS1547:2012, and conducted by an appropriately qualified wastewater specialist, is recommended. Figure 21 below shows soakage testing being undertaken as part of the design process for the café wastewater disposal system to be located on the northern flats.



**Figure 21. Constant head infiltration tests near the surface; (300 and 450mm depth), as per NZS 1547:2012.**

### **3.5 Earthworks**

Earthworks required to support the proposed development will be relatively limited and related to roading requirements, and development on individual sites. As a general guide, cut slopes in the surface

clay soils on the steeper hill country should be limited to a gradient of 1:1 for road and access track construction purposes, and 1V:2H for excavations related to dwellings and structures.

NZ standard compaction tests as per NZS4402:1986 shall be conducted to determine the engineering parameters such as optimal moisture content relative to density and compacted strength for onsite mixed soil materials proposed to be used as earthworks fill. Such testing will be conducted once earthworks commence and a suitable quantity of proposed fill material is able to be obtained from site

Benches should be cut in any cut batters over 6 metres in height, at intervals of not greater than 4 metres. Benches should be not less than 1.2 metres in width, and grade back to the batter face at 1 in 10. The benches should have longitudinal grades of not less than 1 in 100, and provision to collect and discharge the stormwater run-off in an acceptable manner, e.g. via batter toe dams.

All fill batter slopes shall be no steeper than 1V to 1.5H with a bench of a minimum width of 2 metres every 6 metres of vertical height, with a fall inwards of 1 in 10 and longitudinally along the bench of 1 in 100 minima to 1 in 20 maximum discharging to a point clear of the filling in such a manner as to prevent scouring. The top or toe of the batter shall be at least 3 metres from a boundary or building. This is in accordance with NZS4431: 1989 Code of Practice for Earth Fill for Residential Development.

Grading and compaction requirements for fill batters should be on a site-specific basis but the general fill placed on sloping ground should be well compacted on benched land, (not placed directly over sloping ground), utilising moisture content control as required, and vibrating or sheep's foot rollers as appropriate to the specific material.

Where earthworks (either in the form of dams for stormwater detention or general filling works) impede the flow of natural drainage, consideration of appropriately designed culverts and scour protection needs to be undertaken. This may incorporate culvert headwalls; pipe hydraulic design and inlet and outlet scour protection as necessary.

The subsoil material identified on-site is considered suitable fill material however further testing will be required to obtain optimum moisture content as identified while testing compacted material. It is recommended that where filling works are to be carried out the following standard is utilized to control the earthworks:

- NZS 4431: 1989, Earth Fill for Residential Purposes.

And the following minimum testing/supervision works are undertaken:

- Inspection of earthworks, specifically, site stripping, benching, placement and compaction.

Stu Clark CP Eng 58384

16 June 2020.

## **Annex A: Photographs**

**Attachment 9: Traffic Assessment**



# Harriet Fraser Traffic Engineering & Transportation Planning

PO Box 40170  
Upper Hutt  
5140  
P 04 526 2979  
M 027 668 5872  
E harriet@harrietfraser.co.nz

14 February 2020

Ian Stewart

**Via email:**            [ian.stewart.spa@gmail.com](mailto:ian.stewart.spa@gmail.com)

Dear Ian

## **Proposed Plan Change, 52 Mangaroa Valley Road, Upper Hutt Transportation Assessment**

Further to your request, I am pleased to provide below a transportation assessment for the proposed plan change involving the rezoning of part of the 77.8 hectares of land at 52 Mangaroa Valley Road (Riverside Farm) from Rural Hills to Rural Valley Floor. It is anticipated that Riverside Farm would then be subject to a Structure Plan that enables a mixed density rural development with the Rural Valley Floor as an underlying zone.

The assessment that follows includes a review of the existing local transportation characteristics and a summary of the potential traffic effects associated with the development of the site for rural residential purposes under the proposed Rural Valley Floor zoning.

In summary the findings of the assessment show that the proposed rezoning would allow for the site to be developed for rural residential purposes in a manner which is consistent with the District Plan traffic and transportation related objectives and policies.

### **1. Background**

The location and extent of the site is shown in Forturo Design Ltd Drawing RC001 Rev 2. As shown, the site comprises three existing lots which are held in a single title. The site is a mixture of flat and rolling land which is mainly in pasture. The current zoning has the potential to provide up to 5 rural valley floor sections and 2 rural hill sections, giving a total of 7 sections with vehicle access to Mangaroa Valley Road.

In 2017 resource consent (#1610131) was granted with consent conditions to establish a café at the site with the ability to hold private functions. These authorized activities therefore form part of the receiving environment. Traffic and transportation features of this consent include:

- 100 seat café with 30 on-site parking spaces accessed from Mangaroa Valley Road and additional overflow parking;
- forecast peak traffic activity of up to 50 vehicle movements per hour (25 arrivals and 25 departures);
- 6m wide access from Mangaroa Valley Road with excellent sightlines along Mangaroa Valley Road for exiting traffic; and

- dedicated servicing and staff parking area at the back of the café.

The café has yet to be developed.

It is understood that a number of subdivisions have recently been granted consent which access Whitemans Valley Road or Wallaceville Road either directly or via Katherine Mansfield Drive. Traffic associated with additional dwellings can be expected to largely travel to and from Upper Hutt via Wallaceville Road with only very limited additional traffic flows on Mangaroa Valley Road.

As shown in Forturo Design Ltd Drawing RC007 Rev 2 Proposed Site Plan - Roding, it is anticipated that the proposed plan change would result in the potential to create 30 lots with access via a new road which intersects with Mangaroa Valley Road. All lots are shown with vehicle access via the internal road with no driveway accesses directly onto Mangaroa Valley Road.

## 2. Existing Traffic Environment

Mangaroa Valley Road is a Local Distributor Route in the road hierarchy as included in the District Plan and as such has the primary function of providing access to adjacent residential and commercial lots. Nearby Wallaceville Road provides the main connection to central Upper Hutt and beyond is a Collector Road with the function of providing circulation between and within local areas and link to primary roads. Collector Roads may service schools and accommodate intermittent or peak hour public transport. Their main feature is to service the local residential or farming area.

Along the site frontage Mangaroa Valley Road has marked traffic lane widths of around 3.3m within an overall sealed width of around 7.2m.

Photos 1 and 2 show the view in each direction along Mangaroa Valley Road from the site frontage.



**Photos 1 & 2: Mangaroa Valley Road from Site Frontage**

An April 2015 Council traffic count shows average daily traffic flows of 420 vehicle movements per day on Mangaroa Valley Road with up to 60 vehicle movements per hour.

Based on the provisions of NZS4404:2010 Land Development and Subdivision Infrastructure, a rural road that maintains a clear two-way trafficable carriageway width of 5.5 to 5.7m with at least a further 1m of sealed width can be reasonably expected to accommodate traffic flows of up to at least 2,500vpd. This level of daily traffic activity can be expected to have peak hour flows of 250vph to 300vph. As such, the existing local road network including the forecast traffic activity associated with the café is operating well within the available road capacity.

As shown in Photos 1 and 2, sightlines along Mangaroa Valley Road from the site frontage are excellent.

A search of the NZTA crash database for the section of Mangaroa Valley Road 500m to each side of the proposed new road access, including the intersection with Wallaceville Road and the one-lane bridge shows four reported crashes for the most recent five year period. These can be summarised as follows:

- a minor injury crash 88m to the east of Wallaceville Road at 3.30am involving a single vehicle loss of control with alcohol suspected;
- a non-injury crash 900m to the east of Wallaceville Road at 4.05am involving a single vehicle loss of control with speed as a crash factor;
- a non-injury crash 80m to the east of Wallaceville Road involving a westbound car being dazzled and hitting the rear end of a truck; and
- a non-injury crash at the intersection with Wallaceville Road involving a single vehicle loss of control with speed as a crash factor.

Given the single vehicle and non-injury nature of most of the reported crashes along with none including vehicles turning to or from frontage properties, the existing road safety record is considered satisfactory.

### 3. District Plan Transportation Requirements

The proposed plan change involves the rezoning of part of 52 Mangaroa Valley Road to Rural Valley Floor zoning along with the introduction of a Structure Plan. It is intended that this would result in some 30 lots being created with a range of sizes. The access provisions included in the District Plan are the same for all Rural Zones (Rural Lifestyle, Rural Valley Floor and Rural Hill). As such the access provisions that apply to this site with both the existing and proposed zoning as included in Section 19.8 of the District Plan and the Code of Practice for Civil Engineering Works are summarised in Table 1.

Council Provision	Comment
<b>District Plan 19.8 Access standards for subdivision and land use activities</b>	
<ul style="list-style-type: none"> <li>• access to any allotment, including rear allotments, shall be sited at least 20m, measured along the road carriageway, from any access on an adjoining lot, unless two access provisions join the road carriageway at a common point</li> </ul>	The lot sizes are such that 20m separation between accesses onto the proposed new road can be readily achieved.
<ul style="list-style-type: none"> <li>• all accessways and manoeuvring areas shall be formed and surfaced in accordance with the Code of Practice for Civil Engineering Works</li> </ul>	Compliance can be achieved.
<ul style="list-style-type: none"> <li>• all sites shall have practical vehicle access to car parking and loading spaces in accordance with the Code of Practice for Civil Engineering Works</li> </ul>	Discussed below.
<ul style="list-style-type: none"> <li>• vehicular access to a corner site shall be located no closer than 8m from the street corner</li> </ul>	Compliance can be achieved.
<b>Code of Practice for Civil Engineering Works</b>	
<b>C2.6.1 Road Geometric Design</b>  Rural roads shall be designed in general compliance with TNZ/1985: Guide to Geometric Standards for Rural Roads or appropriate Austroads Standards except as modified by the design parameters given in Appendix C, Figure 2	Appendix C Figure 2 includes a minimum road reserve width of 12m, total seal width of 6m and maximum gradient of 12.5% for a local rural road carrying up to 300vpd. The standard increases to a minimum road reserve width of

Council Provision	Comment
(Rural) for the applicable road status.	14.5m, total seal width of 7m and maximum gradient of 12.5% for a road carrying up to 700vpd. These levels of provision can be complied with.
<p><b>C2.6.4 Intersection Design</b></p> <p>Preferred angle of intersection is 90 degrees.</p> <p>Sight lines shall satisfy the minimum standards in Appendix C Figure 8.</p> <p>The separation between any two roads intersection a road of Local Distributor category or higher shall be a minimum distance of 150m centreline to centreline.</p>	<p>Can comply.</p> <p>For a 70kph speed limit a 95m sight line is required. This can be easily achieved.</p> <p>Complies. The intersection with Wallaceville Road is around 500m away.</p>
<p><b>B3.14.2 Rural Crossings</b></p> <p>The crossing shall be sealed to not less than the standard of the road, from at least the road reserve boundary to the road carriageway edge.</p>	Compliance can be achieved.
<p><b>B3.17 Safety Provisions on Hills</b></p> <p>Where roads, rights of way or other vehicular or pedestrian access, whether public or private, run parallel with land which drops away on one or more sides, the sides shall be provided with safety barriers to protect the pedestrian and vehicular traffic.</p>	Compliance can be achieved.
<p><b>B3.18 Non Public Accesses (Urban and Rural)</b></p> <p>...show that it is possible to form an access to each lot, that can be safely traversed by normal road going vehicles.</p> <p>The maximum grade for the 5 metres of any non-public access immediately abutting a carriageway or back of footpath shall not exceed 1 in 8.</p> <p>A turning head in the common area shall be provided at the end of all accesses serving three or more rear lots or dwelling units and on all commercial/ industrial accessways.</p> <p>All non-public accesses (rural/urban) shall be surfaced with permanent impermeable surfacing for at least the first 5 metres from the road carriageway or such greater length as necessary to prevent debris being carried onto roads.</p>	<p>Compliance can be achieved. The Engineering Report prepared by NZ Environmental Technologies Ltd indicates that accesses steeper than 1:6 will be formed with a permanent surface. It is recommended that all accesses are no steeper than 1:4 even when formed with a permanent surface.</p> <p>This can be achieved but will likely need some design work at the resource consent stage.</p> <p>Compliance can be achieved as indicated on project drawings.</p> <p>Compliance can be achieved.</p>
<p><b>C2.7 Multi Unit Non Public Accesses (Urban and Rural)</b></p> <p>Minimum formed and legal widths and other relevant standards shall be as detailed in Appendix C, Figure 1.</p> <p>i. Changes in alignment shall utilise circular curves.</p>	Compliance can be achieved.

Council Provision	Comment
<p>Minimum kerb radii of 8m or that required for the 99% single unit truck.</p> <p>ii. Corner splays shall be provided along inner and outer boundaries at changes of alignment. Splays shall be not less than 3m.</p> <p>iii. Where turning heads are required, circular, T, or Y shaped heads are acceptable. Suitable dimensions are shown in Appendix C, Figure 9 and 10.</p> <p>iv. Centreline grades shall be not steeper than 1 in 5 except that grades of 1 in 4.5 may be used on straight lengths of access over distances of up to 20 metres. However the first 5 metres of any access shall be not steeper than 1 in 8.</p> <p>v. All accesses shall be shaped with either crown or crossfall of 3%.</p> <p>vi. Rural accesses may have passing bays at up to 100m distances where visibility is available from bay to bay.</p> <p>viii. Rural accesses shall have a formation width wider than the sealed widths with safe water tables/ edge drains along but adequately clear of each side of the access.</p>	<p>Compliance can be achieved.</p> <p>Compliance can be achieved.</p> <p>Compliance can be achieved although short sections of grades of up to 1 in 4 may be sought at the resource consent stage.</p> <p>Compliance can be achieved.</p> <p>Compliance can be achieved.</p> <p>Compliance can be achieved.</p>
<p><b>Appendix C Figure 1</b></p> <p>Private way serving 1-3 lots or 1 to 6 houses – road reserve width of 3.6m, trafficable width 2.75m, maximum grade 16%</p> <p>Private way serving 4-6 lots or 7-12 houses - road reserve width of 6m, trafficable width 5m, maximum grade 16%</p>	<p>Compliance with trafficable widths expected. Short sections of the accesses may have grades of up to 20% as anticipated in C2.7 (iv) or will otherwise be sought through the resource consent process.</p> <p>As above.</p>

**Table 1: Council Access Requirements**

Appendix C, Figure 8 of the Code of Practice includes the following provisions with regard to sight lines.

Major Rd Design Speed (km/h)	Sight Distance (m)	Distance from kerb Major private-way (m)	Distance from kerb Minor private-way (m)
70	95	5	3
50	60	5	3
40	40	5	3
30	25	5	3
20	16	5	3

**Table 2: Code of Practice Appendix C, Figure 8 (Extract)**

Depending on the speed limit for the future road, sight distances of between 60m and 95m will be needed from the private accesses along the new road. It is anticipated that the alignment of the road can be adjusted as needed to achieve the appropriate sight distances.

The District Plan includes the following transportation related Objectives and Policies that are relevant to this Proposed Plan Change.

Objectives and Policies	Comment
<b>Policy 5.4.6</b> To ensure that essential services are able to be operated safely and efficiently.	Safe and efficient connection to and from and use of the local road network can be achieved.
<b>Objective 9.3.1</b> The promotion of subdivision and development that is appropriate to the natural characteristics, landforms, and visual amenity of the City, significant areas of indigenous vegetation and habitats of indigenous fauna, is consistent with the sustainable use of land, and has regard for walking, cycling and public transport.	Vehicle traffic flows are light in the immediate road network and the occasional pedestrian and cyclist can be expected to safely share the road space with vehicular traffic as occurs in many parts of the Upper Hutt rural road network. Upper Hutt train station is within around a 10 minute drive.
<b>Policy 9.4.3</b> To promote a sustainable pattern of subdivision and development that protects environmental values and systems, protects the potential of resources, and has regard for walking, cycling, public transport and transportation networks.	As per comment on Objective 9.3.1 above.
<b>Objective 16.3.1</b> To recognise and protect the benefits of regionally significant network utilities and ensure their functions and operations are not compromised by other activities.	Given the small amount of additional traffic and the route options available, no noticeable traffic effects are expected for the state highway road network.
<b>Objective 16.3.3</b> To recognise and provide for the sustainable, secure and efficient use, operation, maintenance and upgrading and development of network utilities within the City.	The additional lots included in the Structure Plan will benefit from the use of spare roading capacity within the existing local road network.
<b>Policy 16.4.4</b> To promote the safe and efficient use and development of the transportation network.	As per comment on Policy 5.4.6 above.
<b>Policy 16.4.5</b> To promote accessibility within the City and between the City and neighbouring areas.	Central Upper Hutt and Upper Hutt train station is within around a 10 minute drive. There are a number of primary schools and kindergartens within nearby suburbs.
<b>Policy 16.4.6</b> To ensure that the subdivision, use and development of land is served by safe and adequate access from the roading network.	The NZTA crash records show no existing safety concerns with the local road network. As per the comment on Policy 5.4.6, safe and efficient connection to and from and use of the local road network can be achieved.

**Table 3: District Plan Transportation Related Objectives and Policies**

Beyond the site, the key traffic effect of the proposed plan change is the increased traffic activity associated with the increased residential density that is anticipated. This is discussed next.

#### 4. Traffic Effects

The proposed rezoning and associated Structure Plan would provide for 30 rural-residential lots to be developed on the site instead of the seven that could be established under the existing zoning. As such the Structure Plan would result in additional traffic activity associated with 23 dwellings over and above activity anticipated with the consented café and subdivision within the site that could be achieved as a controlled activity. The traffic activity associated with 23 dwellings would amount to 184 to 230 vehicle movements per day or 23 vehicle movements per hour during the busiest hours.

With regard to total traffic flows on Mangaroa Valley Road, and if all additional traffic goes to and from the direction of Wallaceville Road, peak hour traffic volumes would increase from 60vph in the Council count to around 140vph (60vph + 50vph for café + 7vph for controlled activity subdivision + 23vph for additional lot density). This level of peak hour traffic activity is likely to amount to an overall total of around 1,000 vehicle movements per day.

Based on the provisions of NZS4404:2010 Land Development and Subdivision Infrastructure, a rural road that maintains a clear two-way trafficable carriageway width of 5.5 to 5.7m can be reasonably expected to accommodate traffic flows of up to at least 2,500vpd. This level of daily traffic activity can be expected to have peak hour flows of around 250 to 350vph. As such, it is anticipated that the existing local road network can readily accommodate the existing traffic activity plus traffic activity associated with the residential development of the proposed plan change site along with that of the consented café.

#### 5. Conclusion

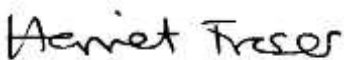
The findings of this transportation assessment can be summarised as follows:

- the site is currently undeveloped with little regular traffic activity;
- the proposed plan change and associated Structure Plan could result in a total of up to 30 vehicle movements per hour during the busiest hours of traffic activity;
- there is spare capacity within the local road network for traffic associated with the Plan Change site;
- the historic road safety record is good and shows no patterns or trends that need addressing as part of this proposal;
- the forecast traffic levels can be readily accommodated within the local road network; and
- safe connection to and from and use of the local road network is expected.

Accordingly the site can be rezoned to Rural Valley Floor zone and developed for rural residential purposes with the development expected to be consistent with the transportation related objectives, policies and rules of the District Plan.

Please do not hesitate to be in touch should you require clarification of any of the above.

Yours faithfully



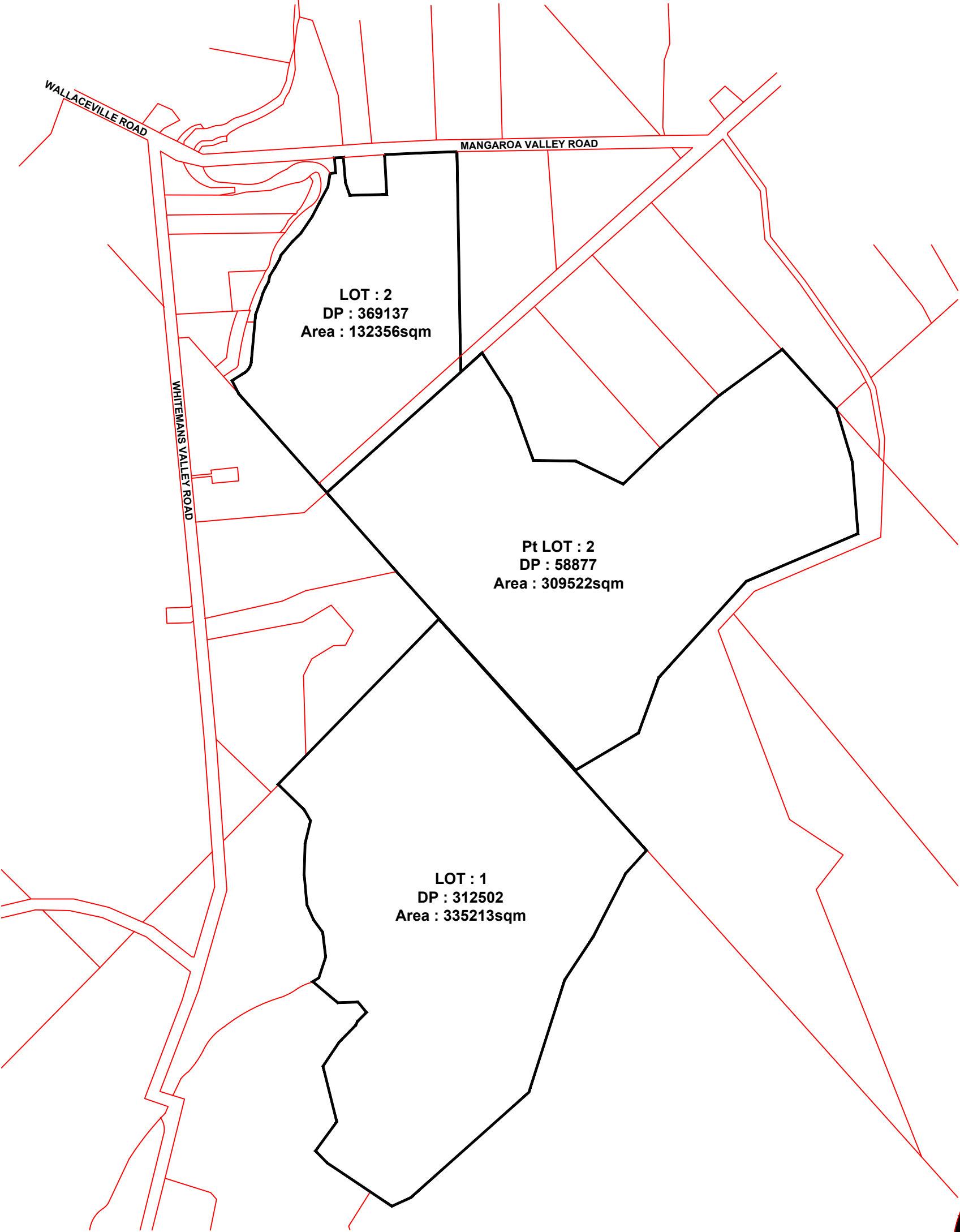
Harriet Fraser

**Attachment 10: Riverside Farm Plans**



REVISIONS		
REV	DATE	DESCRIPTION

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LOT : 2  
DP : 369137  
Area : 132356sqm

Pt LOT : 2  
DP : 58877  
Area : 309522sqm

LOT : 1  
DP : 312502  
Area : 335213sqm

**RIVERSIDE FARM  
PLAN CHANGE**

**FORTURO  
DESIGN Ltd**

P.O. Box 54076,  
Mana  
Tel 04 233 0424  
021 025 80555  
0800 462 462  
INFO@FORTURO.CO.NZ

CLIENT :

JOB :

RIVERSIDE FARM,  
MANGAROA VALLEY,  
UPPER HUTT.

TITLE :

PLAN  
CHANGE AREA

# PLAN CHANGE AREA

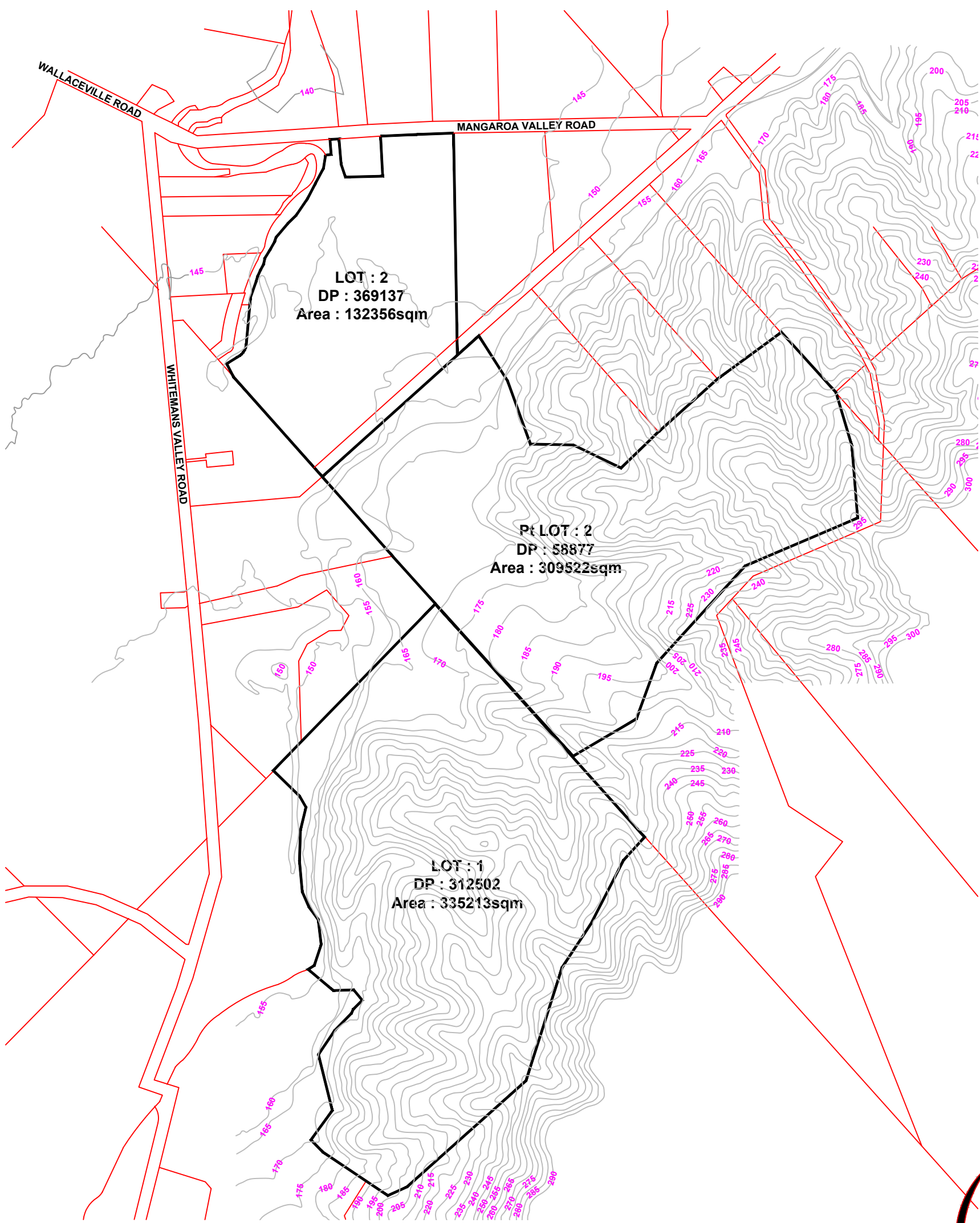
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# PLAN CHANGE AREA - CONTOURS

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021 025 80555  
0800 462 462  
INFO@FORTURO.CO.NZ

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UPPER HUTT.

TITLE :  
PLAN  
CHANGE AREA - CONTOURS

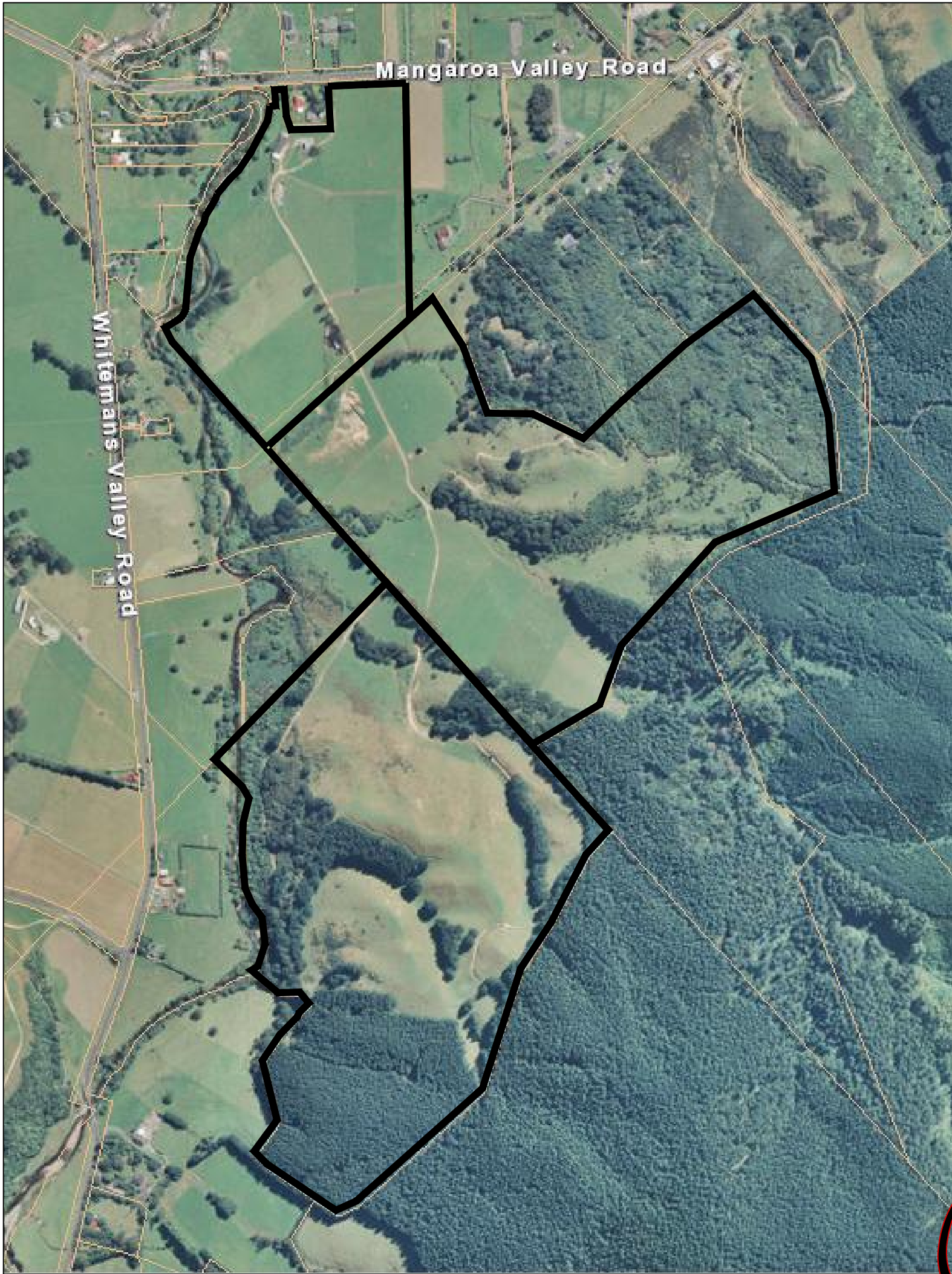
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INFO@FORTURO.CO.NZ

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UPPER HUTT.

TITLE :

PLAN CHANGE AREA  
- AERIAL PHOTOGRAPH

# PLAN CHANGE AREA - AERIAL PHOTOGRAPH

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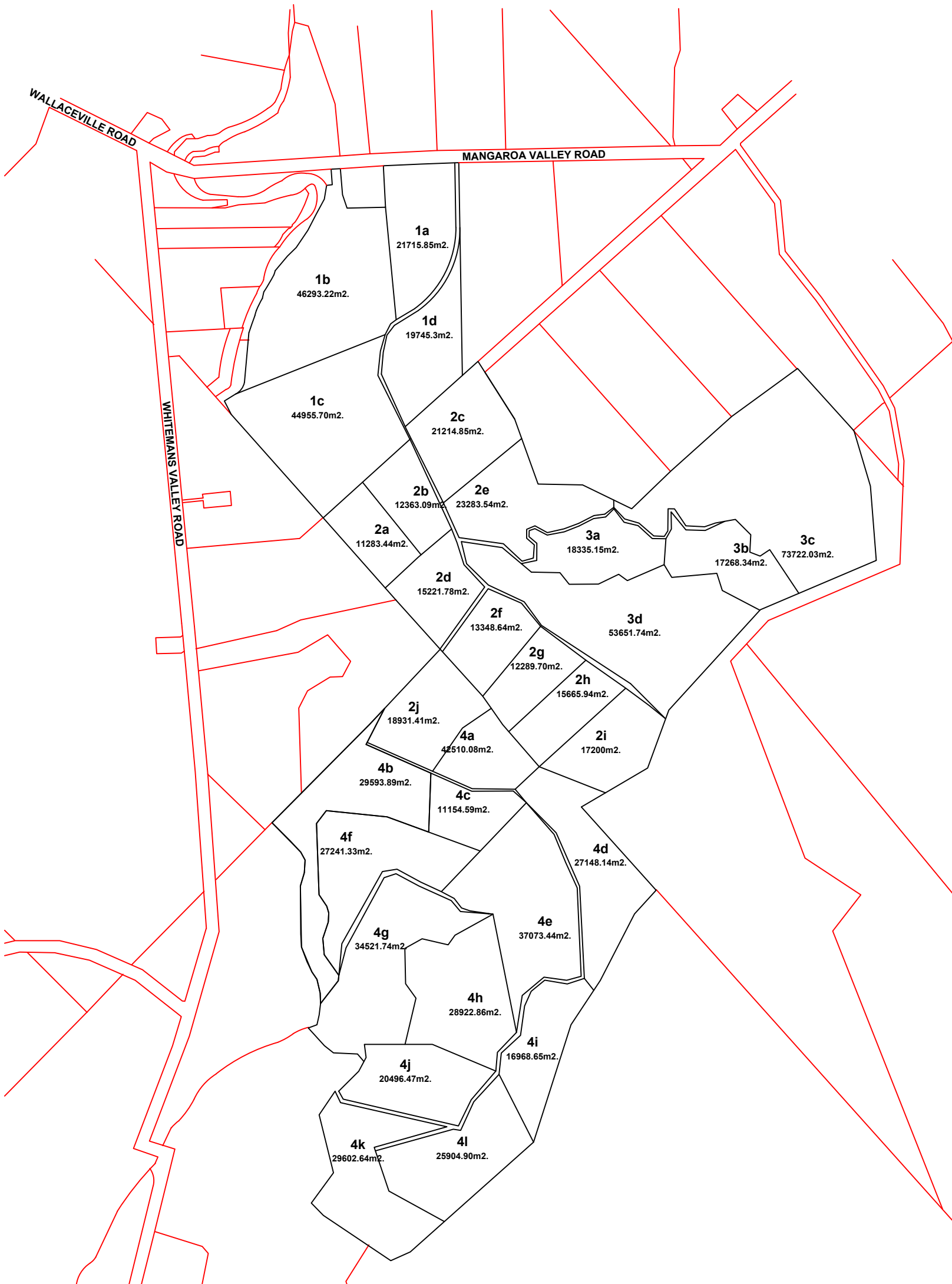
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RC003 REV 2

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# INDICATIVE LOT LAYOUT IN LANDSCAPE REPORT

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0800 462 462  
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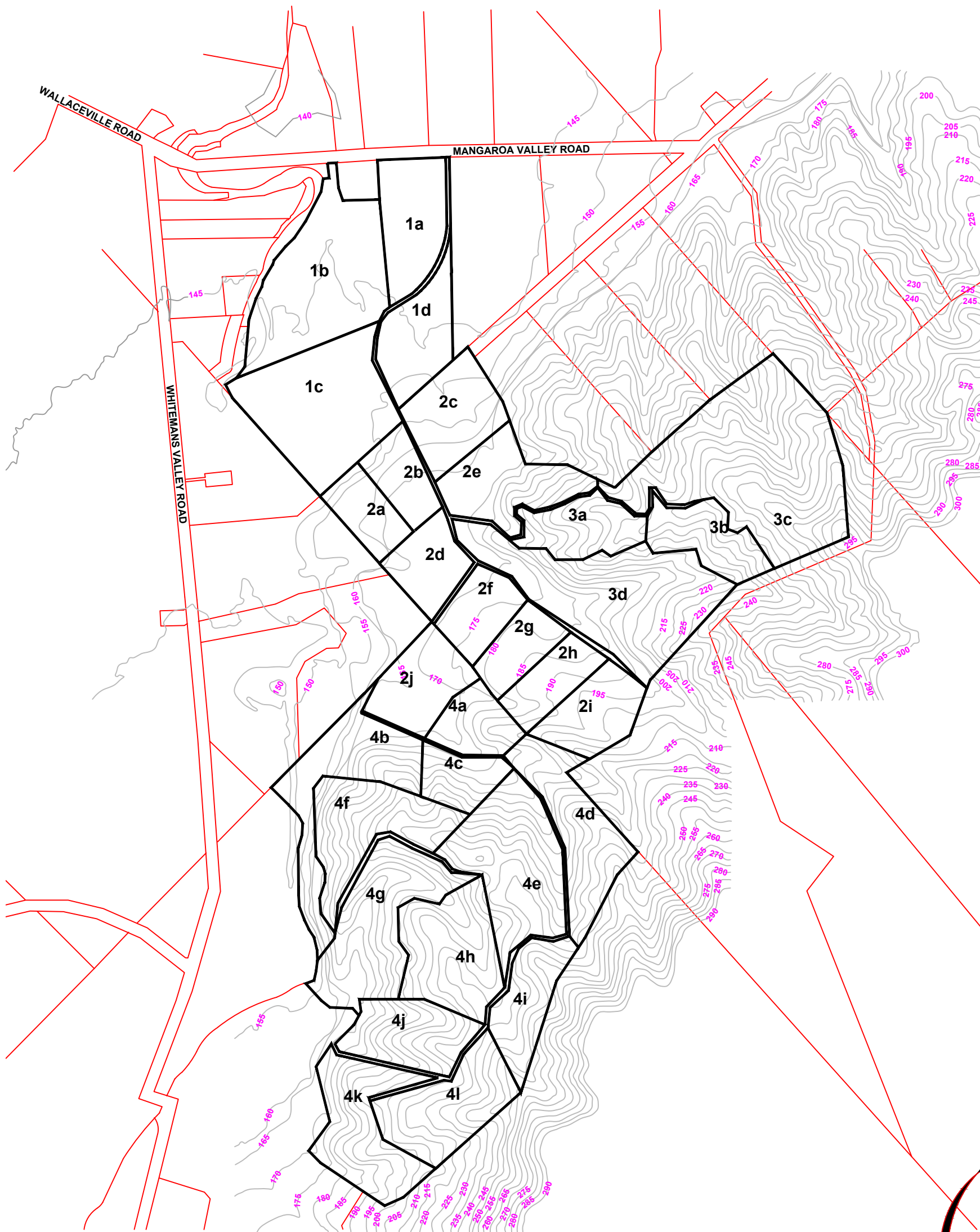
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# LOT LAYOUT IN LANDSCAPE REPORT- CONTOURS

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P.O. Box 54076,  
Mana  
Tel 04 233 0424  
021 025 80555  
0800 462 462  
INFO@FORTURO.CO.NZ

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LOT LAYOUT IN  
LANDSCAPE REPORT  
- CONTOURS

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CONSERVATION AREA 3

CONSERVATION AREA 1

CONSERVATION AREA 2

CONSERVATION AREA 4

CONSERVATION AREA 5

BOUNDARIES TO BE DETERMINED BY ECOLOGICAL ASSESSMENT AS PART OF RESOURCE CONSENT APPROVAL

# CONSERVATION AREAS

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DESIGN Ltd

P.O. Box 54076,  
Mana  
Tel 04 233 0424  
021 025 80555  
0800 462 462  
INFO@FORTURO.CO.NZ

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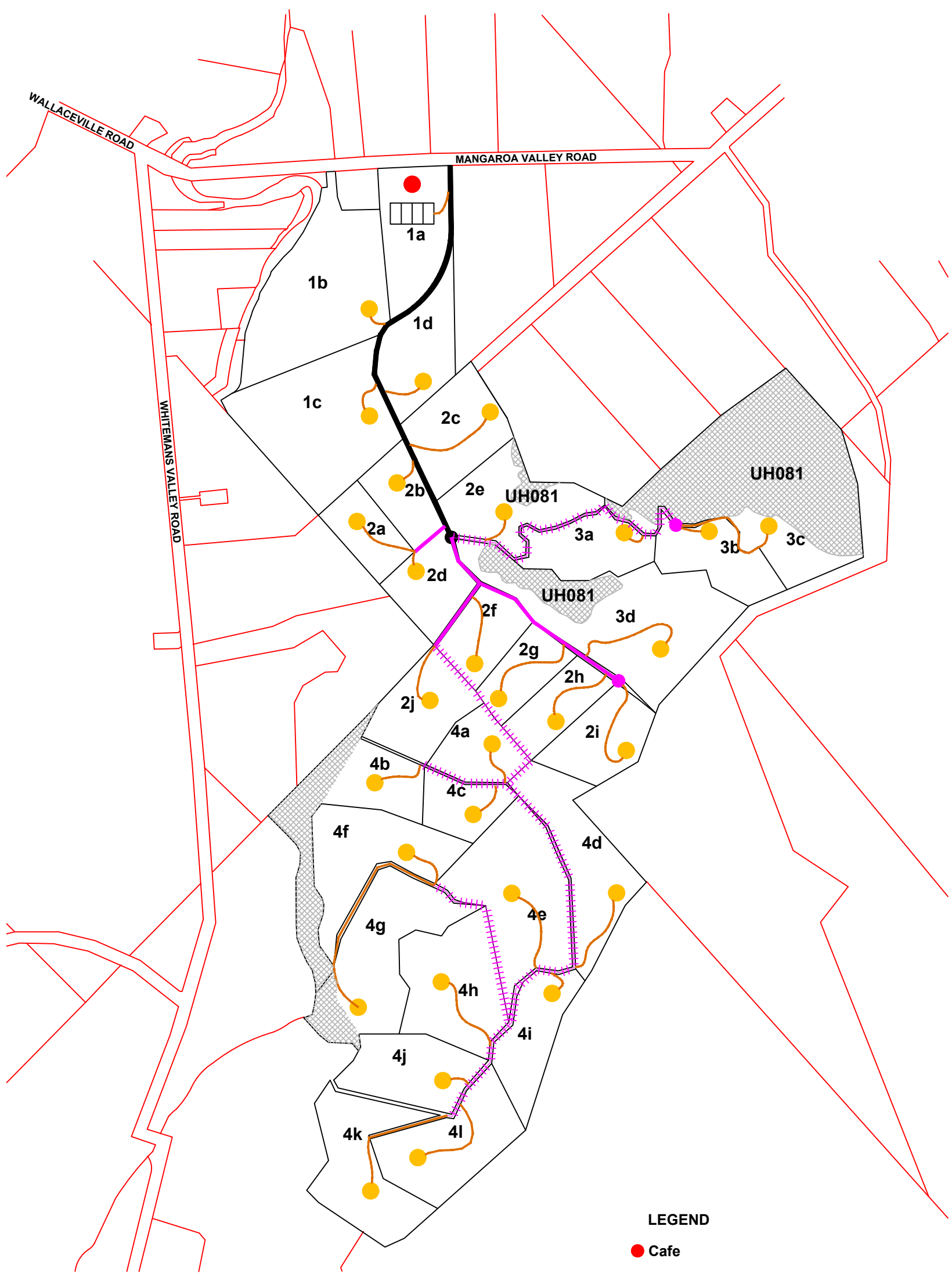
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MANGAROA VALLEY,  
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CONSERVATION  
AREAS

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**LEGEND**

- Cafe
- Dwelling
- Major road with turn around
- Stage 1 Roads with turn around
- Stage 2 Roads with turn around
- Property access drive
- Car Park

**PROPOSED SITE PLAN - ROADING**

SCALE 1:7000

**RIVERSIDE FARM PLAN CHANGE**

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Tel 04 233 0424  
021 025 80555  
0800 462 462  
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CLIENT :

JOB :

RIVERSIDE FARM,  
MANGAROA VALLEY,  
UPPER HUTT.

TITLE :

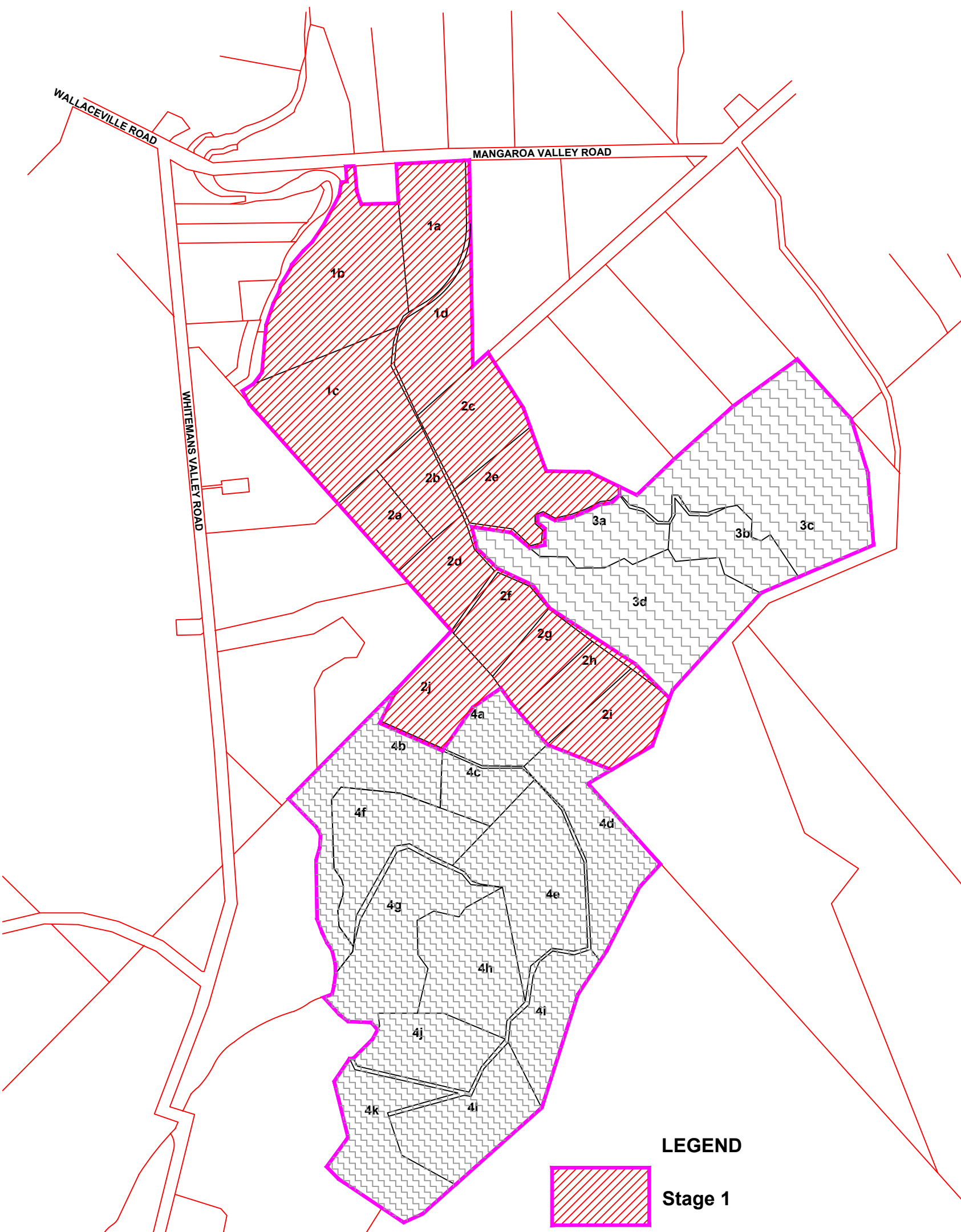
PROPOSED  
SITE PLAN - ROADING

SCALE : DATE : DRAWN :  
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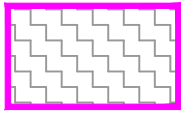
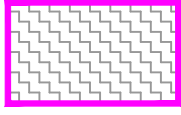
RC007 REV 2

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**LEGEND**

-  Stage 1
-  Stage 2 Eastern Hills
-  Stage 2 Southern Hills

**STAGE PLAN**

SCALE 1:7000

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Mana  
Tel 04 233 0424  
021 025 80555  
0800 462 462  
INFO@FORTURO.CO.NZ

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UPPER HUTT.

TITLE :  
STAGE PLAN

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**Attachment 11: National Planning Standards Assessment**

**To Riannon Barbour, & Ike Kleynbos**

**Proposed Riverside Farm Plan Change - National Planning Standards Assessment**

**Request**

Council has requested that I provide a context for the Riverside Farm Plan Change in terms of the National Planning Standards Published in April 2019.

**Rationale for Current Proposal Structure.**

The proposed Riverside Farm Plan has been written to meet the writing style, structure, definitions and format of the Operative District Plan.

Its primary statutory requirement was to meet the provisions of Section 32 and Part 2 of Schedule 1 of the Resource Management Act.

Two key considerations were to ensure that the rules and methods were existing Objectives and Policies.

As the only other structure plan in the operative plan is Chapter 39 (Wallacville Structure Plan) which is provided as a separate standalone Chapter. The Riverside Structure Plan modelled its headings and formatting on this plan, to the extent possible given the incorporation of rules within the proposed Riverside Farm Structure Plan.

It is my view that this approach is the correct approach given the extent to which a plan change written to meet the National Planning Standards structure, framework and layers standards would be incongruous with the Operative plan.

However, the proposed Riverside Farm Structure Plan is also written in such a way as to be able to be readily included in a future Upper Hutt District Plan when it is reviewed to be compliant with the Standard.

**Relevant Sections of the National Planning Standard**

The Relevant Chapters of the National Planning Standards are:

- 1 Foundation Standard – to the extent that it informs the following Standards
- 4 District Plan Structure Standard – The proposed plan change would fit within Part 4 “Area Specific Matters” and would be a precinct within one of the “Rural zones chapters” (depending on the chapters Council adopts.).
- 7 District Wide Matters Standard – the provisions within the structure plan would be subject to the district wide matters in the same way as the activity standards are currently modified by district wide standards.
- 8 Zone Framework Standard – the proposed plan change is consistent with this standard as it does not seek to establish a new zone for the plan change area. There is flexibility regarding the rural zone structure Council can adopt and the appropriate parent zone will depend on the Choices council makes at the time.

- 10 Format Standard – The proposed Riverside Farm Plan has been written to be consistent with the current plan formatting rather than the National Planning Standard Format. To write it to be consistent with the latter format would mean that the Riverside Structure Plan was inconsistent and unworkable in the context of the Operative Plan. However, there is no part of the proposed structure plan that will cause difficulty in reformatting as part of a wider District Plan rewrite to meet the standard.
- 12 District Spatial Layers Standard – The Riverside Farm Structure Plan has been written in a manner that is directly consistent with precinct’s as defined in this section. This is in part the logic of changing the underlying zoning to Rural Valley Floor. If Council chose they could include the proposed structure Plan as a precinct in the Rural Chapter of the Plan, in the Operative Plans Current Structure. The only inconsistency would be in the different treatment of the Wallacville Structure Plan.
- 13 & 14 Mapping and Definitions Standards. It would be inappropriate to adopt the National Planning Standards mapping protocols and definitions prior to the plan as a whole being changed.

### **Conclusion**

The Proposed Riverside Farm structure plan has been written to be consistent with the current plan rather than the National Planning Standards. It is technically a precinct of the Rural Zone under those standards and could be included as such rather than a separate chapter.

The proposed Riverside Farm Plan change is written in such a way as it retains the functionality of the Operative Plan as currently written. There is no aspect of the proposed plan that exacerbates difficulties of the eventual change to meet the National Planning Standard.

Ian Stewart

10/09/19