

SCHEDULE 6: Rural Subdivision Design Guide

RURAL SUBDIVISION DESIGN GUIDE

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Horowhenua - Rural Subdivision Design Guide

www.horowhenua.govt.nz

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How to use this Design Guideline

Document Structure

This Design Guide is organised into the following five sections:

1. **Introduction**
2. **Process**
3. **Guidelines**
4. **Outcomes**
5. **Appendices**

The Introduction explains the purpose of the Design Guide including how it should be applied.

The Process section sets out the process steps that anyone considering undertaking a subdivision should follow before lodging a subdivision application.

The Guidelines section provides details on design methods and practical solutions that are intended to assist in achieving the objectives and policies set out within the District Plan.

The Outcomes section contains details of the objectives and policies contained in the Rural Environment section of the Plan that the Guidelines seek to achieve.

The Appendices include the detailed road section requirements, useful references and sources of information to assist in the subdivision design process.



Purpose

This Design Guide is relevant to all rural zoned properties in the Horowhenua District Plan. The Design Guide has been developed to provide guidance for those undertaking subdivision within the rural environment and in doing so promote and encourage well designed developments. The Design Guide provides a set of guidelines to inform landowners, developers, potentially affected people and the wider community about rural subdivision development expectations within the Horowhenua rural environment.

The Design Guide does not seek to impose rules on new development, or to prescribe specific design solutions. Rather, it offers a flexible framework within which developers and surveyors can work.

Based on the existing character of the rural environment, this framework identifies key subdivision design principles to assist the integration of new subdivision development into the surrounding context and to enhance the character of the area. This means that while development proposals are expected to demonstrate a commitment to enhancing the character and quality of the area, this Design Guide provides options for how this may be achieved through the design of the subdivision or development.

The Design Guide serves as a method to implement the objectives and policies of the District Plan. It is intended to assist applicants in designing subdivision and development proposals that are consistent with the objectives and policies.

The illustrations in the guide are intended to further clarify principles and outcomes outlined in the text, and are not intended to represent actual design solutions.

Advisory Note: *It is noted that the Design Guide covers a wide range of issues. Not all issues addressed in this Design Guide will apply to every subdivision, therefore, some of the guidelines will not be applicable. For example, if there are no waterbodies within, adjacent to or near the subject site, the applicant would not be expected to demonstrate that the subdivision design is in accordance with the guidelines relating to waterbodies.*



How it Applies

There are a number of objectives and policies within the District Plan which are relevant to subdivision and development in the Rural zone. The policies most relevant to development in the Rural zone are contained within section 2 (Rural Environment) of the District Plan. These policies articulate what it is that Council seeks in the rural environment.

Objectives and policies contained within other sections of the District Plan including the sections addressing the Coastal Environment, Natural Features and Values, Heritage, and Natural Hazards, can also be relevant when considering development in the rural environment. The Rural subdivision rules require that subdivisions are designed in accordance with the Design guide for Limited Discretionary, Discretionary and Non-Complying subdivisions. It will still be relevant and beneficial to Controlled Activity subdivisions, although a Controlled Activity application can not be declined on the basis that it is not in accordance with this Design Guide.

To demonstrate that the subdivision design is in accordance with the Design Guide, applicants need to demonstrate to the Council that the subdivision is in accordance with the following:

1. **The Process of the Design Guide.**
2. **Consistency with the Guidelines of the Design Guide.**

Read through the Design Guide so you are familiar with the format and content of the document and then begin by working through the process steps as set out in Section 2 of this Design Guide.

You will find it useful to refer to Section 3 throughout the Design Options phase of the process steps.

1.0 Introduction

The Design Guide serves as a method to implement the objectives and policies of the Horowhenua District Plan (HDP) in relation to rural subdivision. There are a number of objectives and policies in the HDP (mainly contained in Section 2 of the Plan) that are relevant to rural subdivision. By using the Design Guide in the design of subdivision development, consistency with these objectives and policies can be achieved.

It is important for applicants, developers, and surveyors to consult with the Council at an early stage of the development. Careful planning and consideration of alternative design solutions prior to submitting an application should increase the chances of obtaining subdivision approval and can have the added benefit of reducing uncertainty and the timeframe for processing the subdivision application.

Multiple lot subdivisions require more careful design considerations than single lot subdivisions as they have the greatest potential to generate adverse effects on the environment. Although the size and scale of a subdivision will mean that not all aspects of the Design Guide will always be relevant, the principles of the design approaches and techniques can be applied to the even the most basic of subdivisions.



Design Considerations

Some of the key design considerations highlighted in this guide are:

- ✓ Designing the subdivision appropriately with the existing rural landscape character in mind.
- ✓ Enhancing the natural and rural character of a particular landscape.
- ✓ Designing subdivisions including individual allotments that are sympathetic to the natural landforms of the site.
- ✓ Reducing the effects of urbanization of the rural landscape by avoiding urban patterns of development such as regular shaped, small scale lots laid out in grid patterns.
- ✓ Reducing discordant types of human modifications such as earthworks for roads, access and building sites.
- ✓ Siting buildings/building sites sympathetically and unobtrusively in the rural landscape.
- ✓ Integrating and protecting areas of ecological importance such as native vegetation and waterways as part of the subdivision design.
- ✓ Providing appropriate planting as part of the subdivision.



General Attractions of Rural Subdivision

The general attractions of rural subdivisions include:

- ✓ Space and privacy
- ✓ Convenient location to town or work opportunities
- ✓ Land with character and contour
- ✓ A natural aspect with views to mountains, lakes, rivers, areas of woodland, bush or farmland
- ✓ A rural lifestyle associated with a slower pace of life
- ✓ The ability to develop self sufficiency or farming interests
- ✓ Rural amenity values, uncluttered vistas, absence of urban noise and traffic movements, presence of rural activities.



Making the Most of Existing Features

Sensitive subdivision design through integrating the existing and special features of a site has many advantages.

There are many successful techniques for responding to the special characteristics of a site or area.

These can include:

- ✓ Protecting and enhancing existing waterways
- ✓ Providing walkways or esplanade strips along waterways
- ✓ Linking the subdivision to walkways, cycleways, parks, reserves or other community facilities
- ✓ Protecting any attractive views to and from the site
- ✓ Protecting any rare and threatened animal or plant species on the site
- ✓ Protecting, enhancing and connecting areas of indigenous bush or natural habitats
- ✓ Establishing long term protection of areas with high ecological values
- ✓ Retaining of existing trees for shelter, privacy, or as focal points creating interest or identity
- ✓ Protection of heritage, archaeological or cultural sites.



Which Rural Land Type?

The Horowhenua's rural area is a varied environment with three broad land types: being the distinctive coastal sand country characterised by sand dune formations and natural features; the inland plains and river terraces comprising flat fertile land; and the hill country that forms the backdrop to the District.

Coastal Sand Country

The coastal sand country forms the western edge to the Horowhenua. The key characteristics of the coastal sand country are the dune formations, including the fragile and dynamic foredunes through to the more stable and defined inland dunes, the interdunal flats and wetlands and coastal lakes. These features are highly valued and contribute to the character and identity of the Horowhenua. It is important the nature, intensity and design of any subdivision recognises and is integrated with this character.

Important issues to consider when designing subdivisions in coastal areas include:

- The impact of earthworks and erosion on sensitive dune landforms
- The provision of water, stormwater, greywater and wastewater infrastructure
- The visual integration of structures into the dune formations
- The protection and enhancement of coastal wetlands, lakes and native vegetation

Inland Plains and River Terraces

The inland plains and river terraces are located centrally within the district. The inland plains have a characteristic of flat to gently rolling landform with river terraces. The overall landscape has a "green", vegetated, farmed character reflecting the fertile soils and their productive use. The existing landholding and land use creates a patchwork effect across this landscape. Subdivision is to be carefully managed to protect the productive use of this land resource, while also providing the ability to provide for discrete small scale rural living.

Important issues to consider when designing subdivisions on the inland plains and river terraces include:

- The retention of productive landuses
- The retention of highly versatile soil for existing or future productive landuses
- The impact of earthworks on the distinctive river terraces
- The reduced opportunities to visually integrate development into the landscape (except where there are significant areas of trees or where the land backs onto the hill country)
- The preservation and enhancement of natural values including those of waterways, remnant bush and wetlands
- The potential risk of flooding
- Groundwater levels and ponding which affects building and stormwater, greywater and wastewater sites

Hill Country

The hill country provides a backdrop along the eastern edge of the Horowhenua. This backdrop is characterised by steep hills with a mixed large scale land use pattern, with dry stock grazing, plantation forestry and remnant and regenerating indigenous vegetation predominating. As a backdrop, any subdivision needs to consider the highly visible nature of new access, earthworks and buildings.

Other issues to consider include:

- Erosion and siltation of rivers
- Inappropriate landuses on steep, exposed or highly prominent land
- Enhancing public recreational activities and links to the Conservation estate.



Hill Country



Coastal
Sand Country



Inland Plains and
River Terraces



Horowhenua's
Landscape
Types

2.0 Process

Process Steps

A design process has been developed to guide applicants in preparing and designing subdivisions or developments. Historically subdivision design methods have focused on maximising the number of lots based on the minimum lot size and other standards set out in District Plan. The design process intended for development in the rural environment and set out in this Design Guide differs from the historic approach.

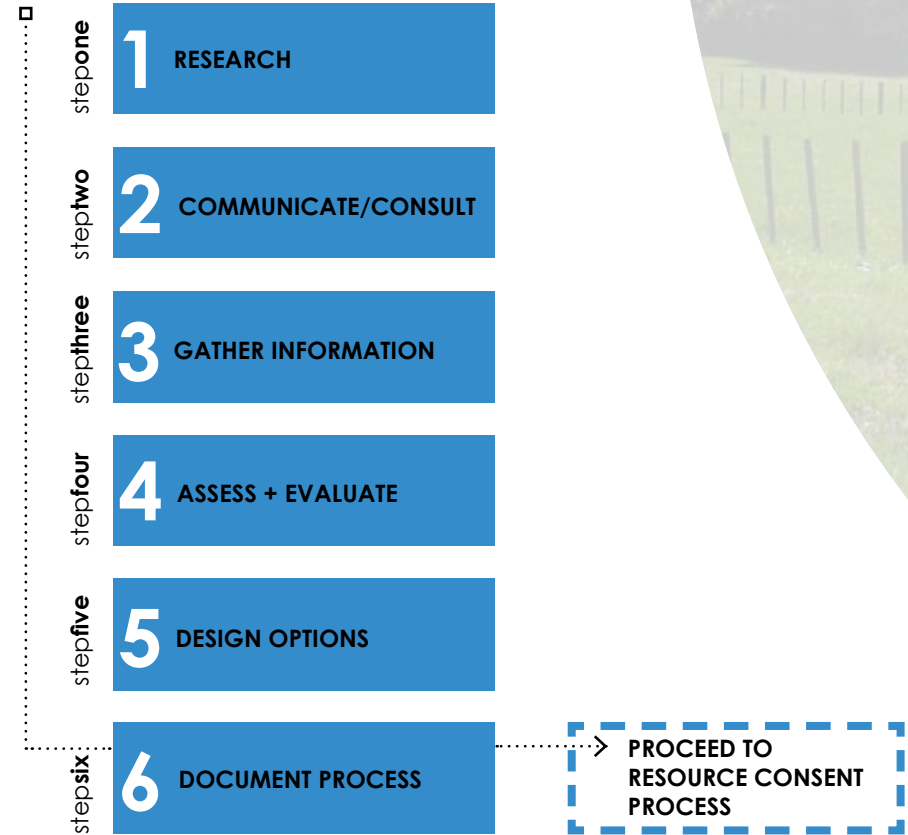
By following the process below, applicants will find it easier and will be more likely to achieve the guidelines in this Design Guide.

1. Research

- Read the Design Guide
- Identify consent requirements, for both subdivision and landuse consents.
- Identify any encumbrances registered on the certificate of title such as covenants or consent notices.
- Visit the site including the surrounding area and become familiar with it in the context of the Design Guide.

2. Communicate and Consult

- Discuss your development ideas with Council officers and other potentially affected parties. It may be necessary to meet with the Council Officers more than once to develop a suitable design that can be lodged as a resource consent application. Council officers encourage pre-application meetings to help identify all necessary considerations.
- Consider your neighbour's interests. Discuss your development with them especially if your application is likely to be notified. You may find they have some really worthwhile local knowledge or ideas that could help your development.



3. Gather Information and Research

- Ensure that the following requirements have been identified, recorded and mapped:
 - Social-cultural attributes, such as existing buildings, current and historic land use, heritage, archaeological and cultural sites, and local or community facilities including parks and reserves.
 - Productive land values of the site, such as soil type, topography, aspect and water.
 - Attributes that are relevant to the on-site disposal of wastewater – such as soil permeability, groundwater depths, slope and topography, aspect and surface water bodies.
 - Attributes which are relevant to the provision of infrastructure services – such as highways, roads, access-ways, stormwater management features, water supply and public amenities.
 - Attributes relevant to the development of the site – such as transmission lines, stop banks, railway lines, natural hazards, neighbouring buildings and land uses.

4. Assess and Evaluate

- Map and describe areas of the site where land development would potentially result in adverse environmental effects because of environmental constraints. This information is termed “constraints” information.
- Map and describe areas of the site where development could occur without adverse environmental effects that are more than minor. This information is termed “opportunities information”.
- Overlay the constraints information with the opportunities information from above. Use a map or maps to show areas that may be developed and areas that should remain undeveloped.

5. Design Options for Subdivision and Development

- Determine possible building location areas and allotment boundaries using the areas identified as opportunities for development. Apply the guidelines of the Design Guide when choosing sites and determining boundaries.
- Identify road, access, service infrastructure, stormwater and wastewater management options using the guidelines of the Design Guide.

- Draft possible design options for a subdivision and development proposal.
- Check the preferred design option against the Outcomes in this Guide. The design option should be based on consistency with the objectives and policies contained in the District Plan and adherence to guidelines of the Design Guide.
- Generally the preferred design should avoid any adverse effects on amenity values, visual and environmental qualities, outstanding landscapes, natural features, natural habitats, and landscape character.

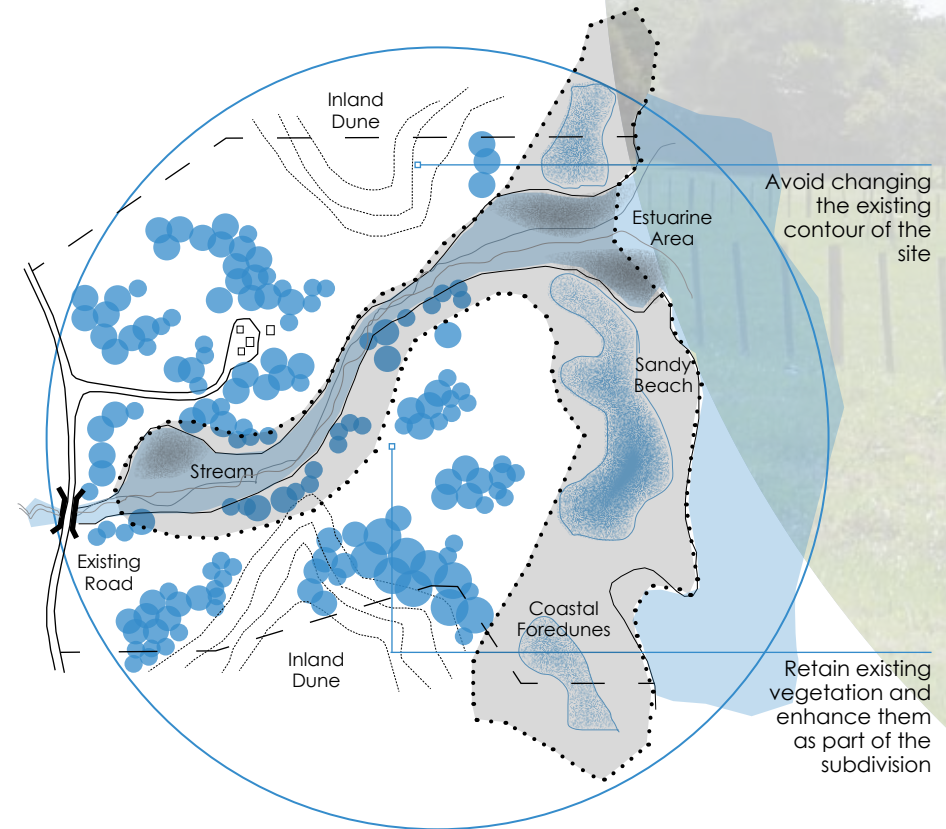
6. Document the Process

- Compile all of the documentation used in the process of design, including the information gathered, the assessment and evaluation process, the process of subdivision and development design.
- Explain and provide reasons for the preferred option.
- Submit all the process documentation together with the application to the Council.

3.0 Guidelines

Landforms and Contours

- 1 Consider contouring any necessary earthworks on site to harmonise with the surrounding landforms.
- 2 Avoid changing the existing natural landforms.
- 3 Use the existing landforms (such as sand dunes or terraces) and vegetation as a backdrop for new building sites.
- 4 Consider clustering new building sites within the contours of the land avoiding ridge or dune tops and exposed slopes to ensure that the development does not detract from the surrounding natural landscape character and to maintain the open rural character.
- 5 Carefully consider the use of gully and catchment areas for new lots as these areas can be ecologically sensitive but can offer opportunities for ecological enhancement as part of a subdivision to add character and value.
- 6 Look at the existing roading, agricultural, vegetation, development and drainage patterns in the broader landscape and use these to guide the design of the subdivision.
- 7 On flat sites at the foot of a hill or terrace consider locating new building sites near the base of the hill or terrace. This will provide a backdrop to the buildings and help retain rural open space on the flat land.
- 8 On Elevated, Hill or Dune Country sites, make the subdivision fit the land. Consider varying and adjusting allotment sizes to fit the landforms and contours.
- 9 Provide roads and access that curve with the landform and avoid hill or dune tops to ensure a good landscape fit.
- 10 On rolling or sloping land avoid straight roads that visually disrupt the landform. A uniform subdivision layout can obliterate the existing landform character on these sites.



Landforms, Contours and Landscape Features

- Riparian Vegetation
- Area with High Natural Character
- Existing Woody Vegetation

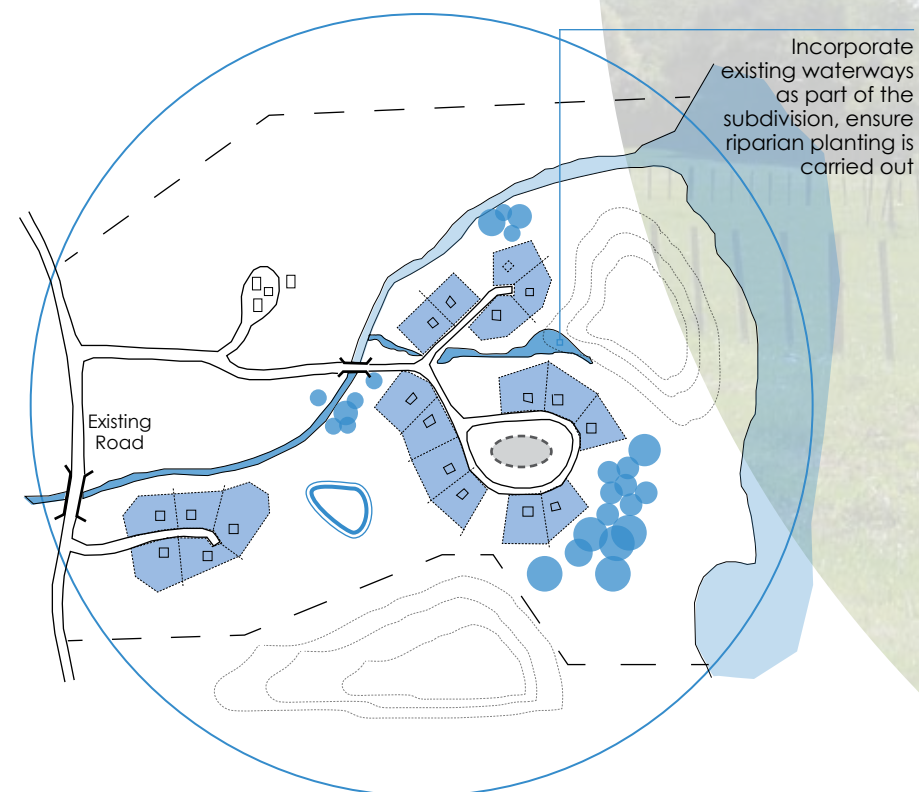
Landscape Features

- 1 Natural or physical features such as sand dunes, streams and shelter belts on the site should be enhanced as part of the subdivision.
- 2 Avoid felling any trees or removing any features until it has been carefully considered how they might be used to enhance the subdivision.
- 3 Try incorporating existing landscape features into the layout of allotments and roads. Use existing trees as focal points for entrances, roads, cycle ways and paths.
- 4 Identify and locate protected features within the site such as heritage, archaeological, cultural and ecological sites of importance.
- 5 Streams and waterways can be attractive features and should be enhanced as part of the open spaces in the subdivision.
- 6 Locate sites for new buildings so that existing landforms, shelter belts and trees provide shelter from wind and rain.
- 7 Look for attractive views from your subdivision to the surrounding landscape and try to incorporate these into the subdivision.
- 8 Consider the provision of a Conservation Lot as part of the subdivision where the site contains an area (greater than 5000m²) of indigenous vegetation or wetland.



Water, Drainage and Stormwater

- 1 Consider creating an esplanade reserve or access strip along a waterway.
- 2 Ensure that riparian planting is carried out along any river or stream. Generally 10 metres of planting each side is recommended, however the steeper the land adjacent to the stream the faster the runoff so a wider riparian strip will be necessary.
- 3 Use appropriate species for riparian planting – the Environmental Guidelines for Rural Living (2001) provides guidance for the different environments within the Horowhenua.
- 4 Minimise the 'hard' stormwater management network (such as pipes and culverts) through the use of swales and rain gardens for collecting, channeling and soakage of stormwater runoff from roads and paths.
- 5 Ensure that the appropriate ecological input is provided for the size, configuration, edge, slope, plant material, management and maintenance of any wetland to be utilised for stormwater management.
- 6 Consider enhancing natural systems such as wetlands, waterways and low lying areas for their habitat value and as part of recreational networks.
- 7 Retain the natural drainage characteristics of the landscape including drainage contours, wetlands and streams and integrate them into the network for stormwater management.
- 8 Consider the use of on-site stormwater detention in the management of stormwater to enhance ground water replenishment and/or to provide an alternative source of non-potable water for a range of uses including firefighting and irrigation.
- 9 Use low impact stormwater design solutions.
- 10 Fence off riparian margins to prevent stock access to waterways.
- 11 Avoid earthworks in close proximity to surface water bodies.
- 12 Provide separation distances between the margins of waterways and building development.



Water, Drainage and Stormwater

- Riparian Vegetation Adjacent Existing Waterway
- Potential Location for On-site Stormwater Storage
- Area Suitable For Combined Sewage Treatment

Wastewater

- 1 Ensure that the disposal field of any wastewater system is located on terrain that is suitable for the disposal of wastewater in terms of soil permeability, drainage, slope, groundwater depth, waterways proximity and aspect.
- 2 Locate disposal systems so that they do not compromise or become compromised by existing or proposed features including waterways, road and buildings.
- 3 Encourage effluent disposal fields to be planted and landscaped through thoughtful siting of the disposal fields. The Environmental Guidelines for Rural Living (2001) provides a list of species that are suitable for filtration planting.

Water Supply

- 1 Encourage water conservation principles such as rainwater storage and stormwater detention in the design and layout of the subdivision.
- 2 Collect and store rainwater from roofs of buildings and impermeable surfaces.
- 3 Consider specifically collecting and retaining stormwater for non-potable uses such as irrigation and firefighting.



Consider on-site stormwater detention



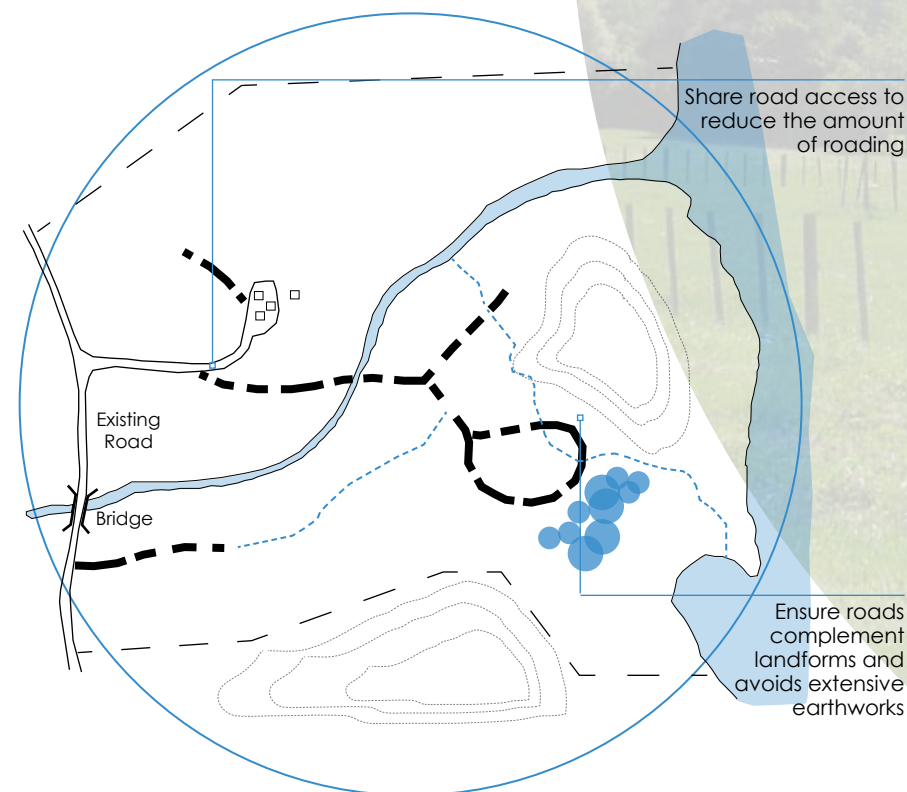
Ensure riparian planting is located along any river or stream



Minimise 'hard' stormwater solutions

Roads, Transport, Access and Fencing

- 1 In providing new roads, consider the function of the road network as to whether it is to be an arterial road, a collector road, local road or accessway and reflect this in the design to avoid roads that are over-scaled relative to their purpose and traffic volumes (Refer to the Road Sections in the Appendices and HDC Minimum Engineering Standards).
- 2 Ensure that road reserve areas are of sufficient width to accommodate the provision of stormwater swales and rain gardens (where ground conditions are suitable), a shared walking/cycle path off the road or planting.
- 3 Footpaths and cycleways do not need to follow roads. Consider making these meander along waterways or past areas of interest with good views of the broader landscape.
- 4 Ensure that roads and accesses to buildings complement the landforms, avoiding extensive earthworks or earthworks that cut across natural patterns of land leaving visible scars.
- 5 Ensure that vehicle access does not accentuate buildings or building sites by leading the eye to them.
- 6 Consider the location of buildings and building sites together with their access to minimise the length of roading or driveway required.
- 7 Provide shared access to reduce the amount of roading required and also to reduce the number of entrances onto the roading network.
- 8 Provide right-of-ways with sufficient legal width to accommodate any future subdivision.



Roads, Transport, Access and Fencing

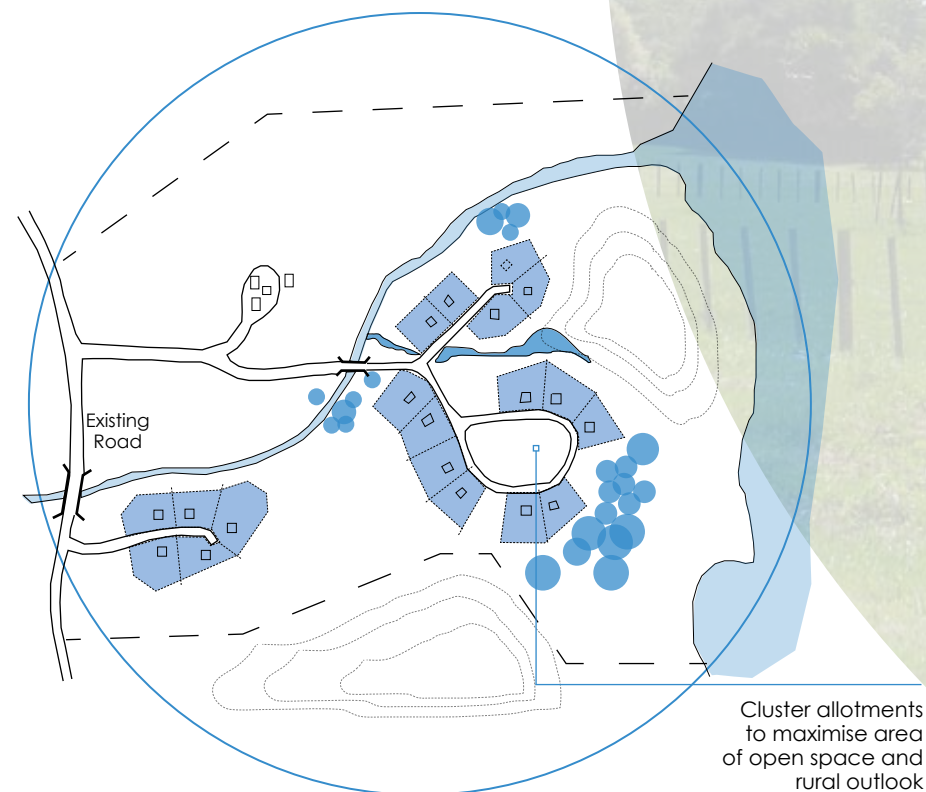
- Possible Road Access — — — — —
- Possible Pedestrian/Cycle Access - - - - -

- 9 Take into account the design of the road in terms of traffic safety and desirable traffic speeds (wide, straight roads will encourage faster speeds than a narrow curved road).
- 10 Provide for the transport needs of rural productive land uses in the design and layout of roads and access.
- 11 Minimise pole mounted street lighting by restricting its use to intersections of arterial or collector roads.
- 12 Ensure that fencing is limited to what is functional to retain views and the open rural landscape character, consider planting hedges and trees as alternative means to fencing. Where fencing is provided, encourage permeable fencing.
- 13 Consider private covenants to control the location, design, colour, materials and height of fences.






Allotment Layout and Boundaries

- 1 Provide a variety of allotment shapes and sizes, which are in keeping with landscape values, the topography of the site and the landscape character of the surrounding environment.
- 2 Look to determine allotment boundaries based on natural landscape contours and geographic features.
- 3 Determine allotment boundaries with a view to minimising the potential for adverse cross-boundary effects between current and future rural productive uses.
- 4 Ensure that versatile land is not fragmented by allotment boundaries in a manner that would prevent it from being utilised for existing or future productive land uses.
- 5 Ensure that allotments for primary production on versatile land are of a practical shape suitable for primary production activities.
- 6 Consider the siting of boundaries to ensure that impermeable fences are not sited in elevated and prominent locations against the backdrop of the skyline.
- 7 Ensure allotments containing existing buildings can accommodate all existing services.
- 8 Where large balance lots are provided as part of the subdivision ensure that the layout and design of the balance lot complements the other lots in the subdivision.
- 9 Where a Conservation Lot is provided as part of the subdivision, consider providing a buffer area between the protected feature and the allotment boundary.



Allotment Layout and Boundaries

- Proposed Allotment Locations 
- Existing Contours/Coastal Sand Dunes 
- Existing Vegetation 

Planting and Vegetation

- 1 Use planting to not only mitigate the adverse effects of development but also to positively enhance the site or landscape.
- 2 Ensure that remnant or regenerating areas of native vegetation or larger exotic trees are retained within the subdivision layout.
- 3 Look to integrate existing trees and new vegetation within the development to provide focal points or provide privacy or shelter for buildings. Existing vegetation can give 'instant' maturity to a subdivision.
- 4 Consider the provision of planting within the subdivision development that will provide a vegetation 'framework' providing definition to building sites and screening between properties.
- 5 Ensure that trees and plant types are appropriate for the local conditions – the Environmental Guidelines for Rural Living (2001) provides a list of species that are suitable for the different environments within the Horowhenua. Avoid species which do not reflect the typical vegetation character of the area.
- 6 Provide a range of plant species to encourage increased biodiversity.
- 7 Ensure the layout of plants reflect the existing patterns in the landscape. These may be the geometric patterns of paddocks, or curves that follow a river or the contours of ridges and gullies. Provide naturalistic planting patterns on sloping landscapes, whilst geometrical planting patterns are more acceptable on flat landscapes.
- 8 Look to include native plantings in those areas where the planting can extend existing areas of native bush.
- 9 Consider extending adjacent nearby clusters of trees into the subject site as part of the subdivision design to help the subdivision appear as part of the existing landscape.
- 10 Consider the use of covenants to control the protection of existing trees and the plant species that can be used near areas of native vegetation.
- 11 Consider providing a Conservation Lot as part of the subdivision.



Determine allotment boundaries based on the natural landscape contours and site features



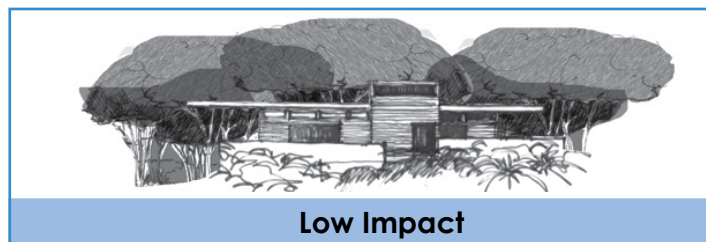
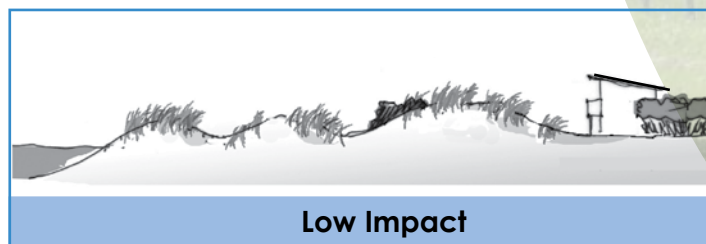
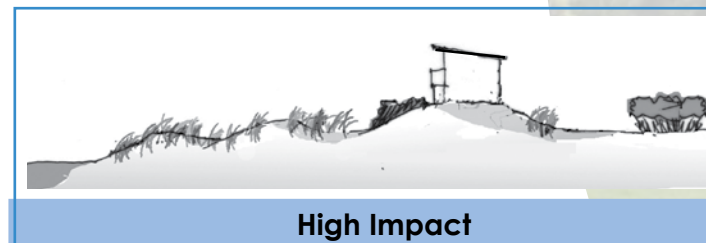
Retain existing trees and vegetation to give instant maturity and identity to a subdivision



Avoid planting that does not reflect the existing patterns of the landscape

Building Sites, Buildings and Structures

- 1 Avoid siting buildings or building sites where the sky would be the backdrop, locating buildings against a backdrop (such as sand dunes and terraces) can reduce the visual impact of a building on the rural landscape.
- 2 On sloping sites buildings should be sited down the hill side with a low profile to minimise the visual effects and avoid buildings being sited against the skylines. The urbanising effect of buildings and structures is more pronounced when they are sited in highly visible or prominent locations.
- 3 Consider grouping or clustering the building sites together rather than distributing them across the whole site to reduce the amount of roading and to provide open outlooks.
- 4 Avoid linear clusters that would give the visual appearance of an urban setting.
- 5 Where planting is a feature of the site or landscape, integrate houses into shelter plantings to help preserve the natural character.
- 6 Align buildings and building sites with the lie of the land not boundary fences.
- 7 Ensure that excavation required for building sites is minimised so that any building does not appear to interrupt the natural shape of the land.
- 8 Provide indirect access to buildings to enhance screening and privacy.
- 9 Consider the use of private covenants to control:
 - The location of dwellings;
 - The style, design and character of building;
 - The use of recycled building materials;
 - The use of alternative and renewable forms of energy;
 - The use of sensitive exterior materials and colour schemes for new buildings.

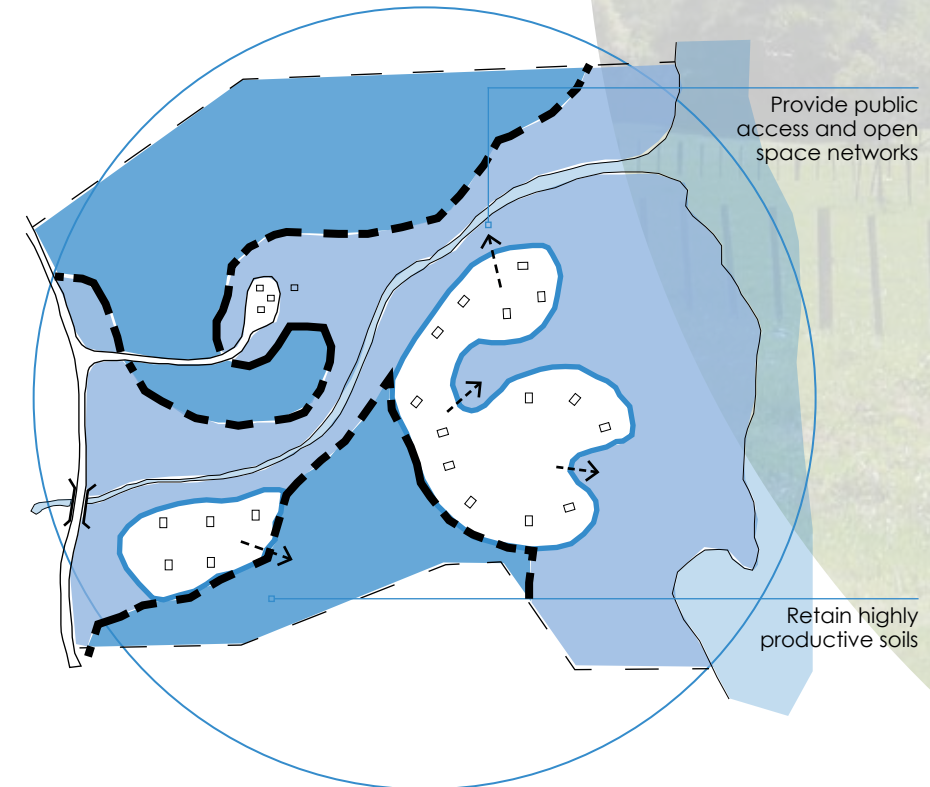


- 10** Consider the location of building sites to take advantage of site features such as shelter, privacy, outlook and sunlight.
- 11** Ensure where there is public access to open space networks that there are building sites with outlooks to that open space to provide passive surveillance.
- 12** Require that in coastal locations building sites and ancillary structures such as water tanks are not in prominent positions when viewed from the beach foreshore.
- 13** Consider the potential from deriving some compatible productive uses (such as trees or vineyards) from the land by providing larger, possibly shared public spaces unencumbered by buildings.
- 14** Ensure that building sites, buildings and structures are not in close proximity to natural hazards, particularly near waterways and areas of land instability.
- 15** Ensure that building sites are located in positions that would avoid, remedy or mitigate the potential for adverse cross boundary effects (reverse sensitivity) with productive land uses.
- 16** Avoid siting new buildings in areas where it would compromise the productive potential and lifesupporting capacity of versatile land.








Production Values

- 1 Retain land that has high productive values (highly versatile soil) for present or future productive land uses.
- 2 Separate and/or buffer existing and future potential rural productive activities from residential land use activities so that residential activities will not result in undue restriction on those rural productive activities.
- 3 Ensure that productive land including versatile land is retained in unfragmented landholdings, to maximise existing and future opportunities to use the land for rural productive purposes.
- 4 Ensure that the productive potential of versatile land is not compromised through the siting of new boundaries or buildings.
- 5 Remove and replace quality topsoil from underneath buildings or areas to be hardsurfaced to places on the site where it may be re-used for rural productive purposes.



Highly Versatile Land, Conservation Land and Public Access

- Highly Productive Farm Land 
- Land for Protection or Enhancement 
- Land Suitable for Development 
- Possible House Locations 
- Public Access 

Recreation, Conservation, Open Space and Public Access

- 1 Consider the use of natural features such as wetland areas, waterways, gullies, coastal margins, ridgelines and hilltops, for open space networks and public access.
- 2 Consider how open space networks and associated improvements may provide ecological benefits such as opportunities for linking between habitat areas.
- 3 Consider providing large contiguous open spaces in common ownership with low maintenance landscape treatment as part of the subdivision.
- 4 Seek to provide public open space areas for recreation, conservation and/or amenity to encourage social interaction and healthy livable communities.
- 5 Ensure the design of open space has taken into account the impact of the sun and wind on the open space and how the space will be used.
- 6 Provide sight lines from open spaces and public access ways to rural outlooks or to features such as the coastline or Tararua Ranges.
- 7 Integrate open space areas with other design outcomes, such as effective stormwater management, riparian enhancement and landscape protection.

Long Term Management

- 1 Clearly define ownership and management responsibilities of shared or public areas within the subdivision.
- 2 Consider the development of a management plan detailing the long-term maintenance and use of the land where there is shared ownership of an unbuilt area.
- 3 Clearly define the long term ownership, management, maintenance and funding responsibilities of infrastructural services such as water supply and waste management systems.



4.0 Outcomes

Subdivision Development Outcomes

The guidelines contained in this design guide provide extra assistance to applicants seeking to achieve the relevant objectives and policies in respect of rural subdivision and development.

The table below sets out the design considerations with the corresponding guidelines that may be applicable for rural subdivision and development, and includes cross references to the related objectives and district wide policies that are found in the Rural Environment section of the Plan. These objectives and policies set out the outcomes that subdivision through a carefully considered design should achieve.

Objectives and policies contained in other sections of the Plan may also be relevant for subdivision and development in the Rural zone. For example the Heritage section of the Plan contains policies that are relevant for a subdivision involving a heritage feature. Reference should be made to the landscape domain policies, to ensure that the guidelines set out in this guide have been correctly applied in the context of the relevant landscape domain.

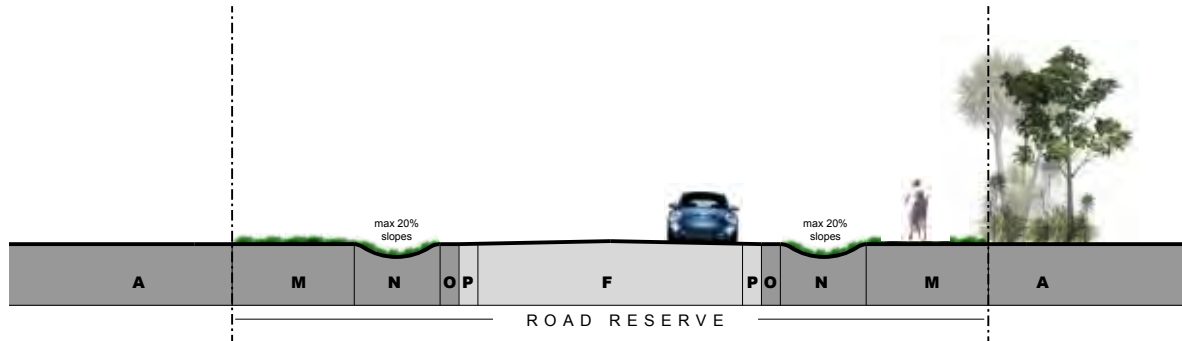


Design Considerations	Guidelines	Rural Environment Objectives & Policies
Amenity Values	Landscape Features Allotment Layouts & Boundaries Planting & Vegetation Recreation, Conservation, Open Space & Public Access	Policies 1.6, 3.9, 3.11 Objectives 1, 3
Archaeological, Heritage & Cultural Values	Landscape Features	Policy 1.8
Biodiversity, Natural Features & Habitats, Natural Character, Outstanding Landscapes & Features,	Landforms & Contours Landscape Features Planting & Vegetation Building Sites, Buildings & Structures	Policies 1.8, 1.9, 1.10
Infrastructure and Transportation	Landforms & Contours Roads, Transport, Access & Fencing Long Term Management	Policies 1.15, 1.16, 1.17, 1B.1, 3.12, Objective 1
Landscape Character and Values	Landscape Features Roads, Transport, Access & Fencing Allotment Layouts & Boundaries	Policies 1.2, 1.3, 1.4, 1.6, 1.8 Objective 1
Natural Hazards	Building Sites, Buildings & Structures	Policies 1B.2, 1B.4 Objective 1B
Production Values and Versatile Land	Allotment Layouts & Boundaries Building Sites, Buildings & Structures Production Values	Policies 1.7, 1.18, 1A.2, 1A.4, 1A.5, 1A.6, 1A.7, 1A.8, 1A.9 Objective 1A
Reverse Sensitivity	Allotment Layouts & Boundaries Production Values	Policies 1B.2, 1B.3, 1B.5, 3.10, 3.14
Rural Character, Open Space, & Built Elements	Landforms & Contours Roads, Transport, Access & Fencing Building Sites, Buildings & Structures Recreation, Conservation, Open Space & Public Access Long Term Management	Policies 1.5, 1.6, 1.7, 1.18, 3.4, 3.5, 3.6, 3.13, Objective 1
Sustainable Soil Management	Allotment Layouts & Boundaries Production Values	Policies 1A.1, 1A.2, 2.1, 2.2 Objective 2
Wastewater Management	Wastewater Long Term Management	Policy 1.14
Water Conservation and Supply	Water Supply Long Term Management	Policy 1.13
Waterways, Stream and River Environments	Landscape Features Water, Drainage & Stormwater	Policies 1.8, 1.11, 1.12

5.0 Appendices

Road Section Details

Rural Collector 8m Carriageway



Note:

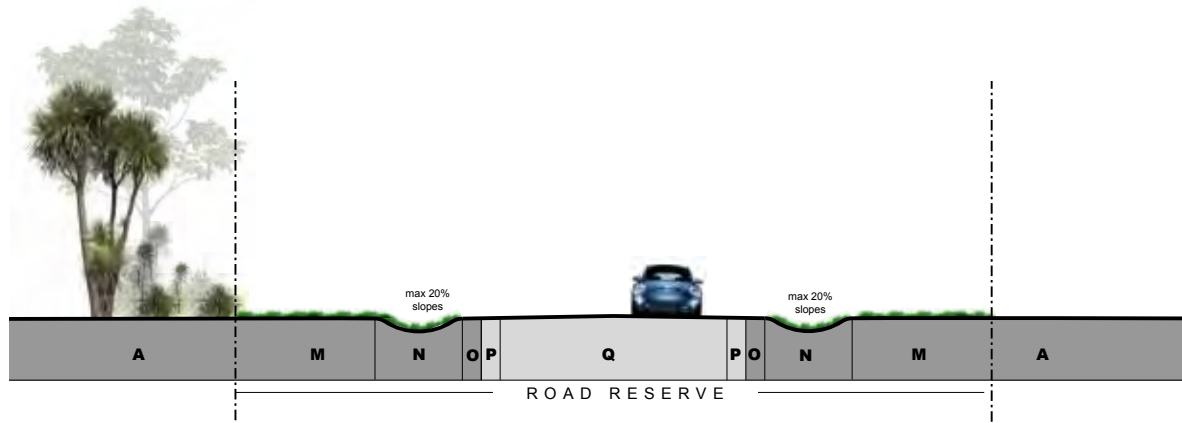
Tree root barriers to be considered in detail design to avoid service / construction conflicts. All trees subject to specific HDC approval or requirement.

Carriageway in accordance with HDC MES

- A - parcel**
- F - 7m carriageway (8m inc. sealed shoulder)**
- M - landscape berm with 1.8m wide cyclepath to one side of carriageway only - to be min. 1.5m from parcel edge.**
- N - grassed swale centre to be min. 2m from edge of seal**
- O - 0.5m shoulder (not sealed)**
- P - 0.5m shoulder (sealed)**

total road reserve dimension - 20m

Rural Local 6m Carriageway

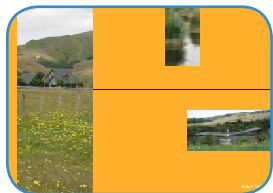


- A - parcel**
- M - landscape berm**
- N - grassed swale centre to be min. 2m from edge of seal**
- P - 0.5m shoulder (sealed)**
- O - 0.5m shoulder (not sealed)**
- Q - 5m carriageway (6m inc. sealed shoulder)**

total road reserve dimension - 20m

Scale 1:200 @ A4

Reference Documents



Environmental Guidelines for Rural Living – Kapiti & Horowhenua (2001)



Landscape Assessment of the Rural Environment of the Horowhenua District (October 2008)



The Impact of rural subdivision and development on landscape values (July 2000) MFE

For More Information

Horowhenua District Council

ph. 06 366 0999
fax. 06 366 0983

Private Bag 4002
Levin 5540

126 Oxford Street
Levin

www.horowhenua.govt.nz