



GREAT LAKE TAUPŌ
Taupō District Council

Design Guide for Rural Subdivision Amenity and Character

27 March 2012



Contents

Part One

Introduction 3

Rural amenity and character 4

Part Two

Design Process 6

Subdivision Examples 11

Earthworks Examples 13

Building Location Examples 15

Built Structures Examples 17

Mitigation Planting Guide 18

Glossary 22

PART ONE

Introduction

This Design Guide for Rural Subdivision provides a visual guide to the rural provisions of the Taupō District Plan and uses illustrated examples to show how the objectives and policies can be achieved. The guide is intended to help anyone undertaking subdivision in the rural environment achieve good practice rural amenity and character design.

The guide can help inform design of subdivision activities that require resource consent, such as subdivision that proposes larger than anticipated built structures, earthworks, or new roads. Anyone wishing to voluntarily enhance the amenity and character of their property may also find the guide useful.

The guide has been developed under policy 3b.2.2.x of the Taupō district plan. This policy is to take into account any relevant guidelines in the design of any subdivision in the rural environment.

The guide is not intended to inhibit the working nature of the rural environment. Rather it assists in achieving the rural goals of the district plan; to maintain the rural amenity values and avoid the gradual urbanisation of the rural environment.

In all instances the Taupō District Plan and Code of Practice for Development of Land must be referred to when undertaking a rural subdivision.

IMPORTANT NOTE

This document is a guide only, and does not require subdivisions or developments to be designed in accordance with its examples. Depending on the specifics of a proposed activity, there may be other ways to achieve the objectives and policies of the district plan.

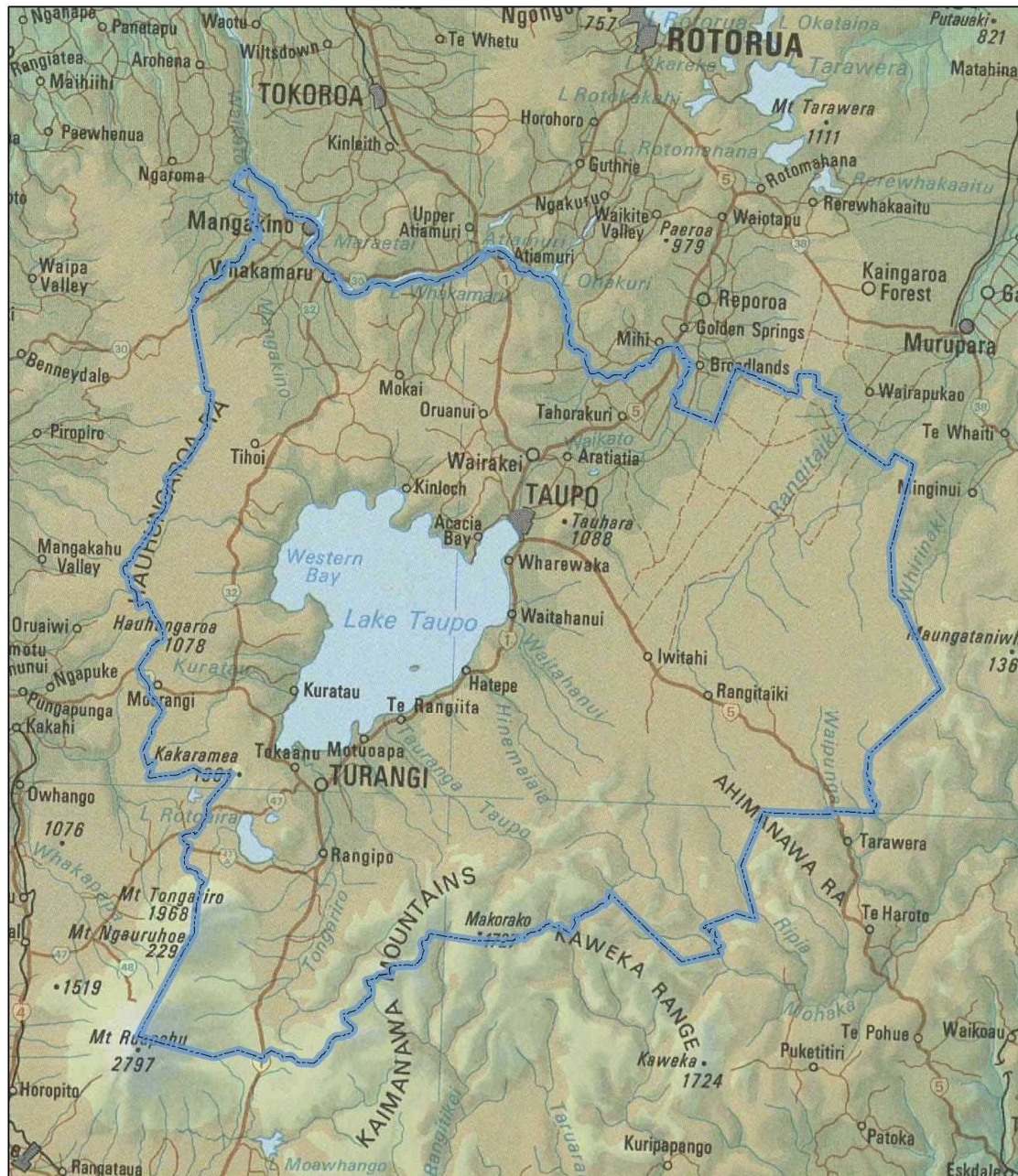
It is also important to note that subdivision design that uses this guide does not always make it appropriate in every case. Every site and application is unique and subject to a number of requirements. A case-by-case assessment of a proposed subdivision against the district plan and code of practice provisions would be required in all instances.

Taupō District Council planning staff is available for anyone wishing to discuss the requirements of their proposed activity in the rural environment.



Rural amenity and character

Most of the Taupō District is rural, covering a wide range of geographic types including mountain ranges, the central plateau, hill country, river valleys, lake and river margins and cliffs. The Taupō District Plan defines the “rural environment” as all land outside the town centres, residential, and industrial zones.



Map of the Taupō District showing the different geographic types.

The Taupō district plan recognises rural environments are working environments with a wide range of activities. Land use activities include:

- Farming and pastoral activities and associated living
- Forestry
- Industrial activities, such as electricity generation, quarrying
- Marae and papakainga
- Recreation
- Tourism
- Commercial accommodation
- Conservation

The district plan has a “rural environment” chapter, which identifies some of the main elements that contribute to rural amenity and character. This takes into account the interaction of human activities with natural landforms and natural processes, and recognises rural activities as contributing to the rural character.

Attributes that the district plan lists as contributing to people’s enjoyment of the rural environment include:

- Widely separated buildings and structures, and allotments with very low site coverage and limited areas of impervious surface.
- Buildings are a minor element in the landscape and generally subservient to the surrounding environment.
- Where larger buildings exist, these are generally associated with the rural productive nature of the area.
- Ridgelines generally free of buildings.
- Large areas of vegetation including pasture, crops, productive forest, native bush, lakes, and rivers.
- Dominance of open space.
- Sites of significance for cultural, historical, ecological, and amenity reasons.

IMPORTANT LANDSCAPES AND AREAS

In addition to the above rural amenity and character attributes, Taupō’s rural areas also have important landscape areas, which can be sensitive to certain activities. Important landscape areas include mountains, rivers, lakes, and prominent landforms. The Taupō district plan identifies these important landscape areas and makes provision for sensitive use of these areas. Some of the design principles set out in this guide may be appropriate for design in important landscape areas. For particular design requirements of activities relating to important landscape areas refer to the Taupō district plan, or talk to Council’s planning staff.

PART TWO

The design guide covers six main components of rural subdivision design for amenity and character:

- **Design Process:** site identification, analysis, design
- **Subdivision:** layout; allotment boundaries, access, planting
- **Earthworks:** building platforms, roads and paths
- **Built Structures:** design, colours and reflectivity,
- **Building Location:** use of new and existing vegetation around buildings
- **Mitigation Planting:** requirements, types, and characteristics

Design Process

There is no one way to design a site, and there is more than one way to design sensitively. A design process helps to show how the design outcome has been achieved, and can be useful for decision makers to better understand the subdivision proposal.

District plan policy 3b.2.2.x.d requires a design process to be undertaken, to identify sensitive areas such as water courses, existing vegetation that contributes to rural character, and any important cultural, historical, natural or landscape values. By identifying such areas, they can then be analysed for any particular design requirements, and in turn better inform how the final design may look.

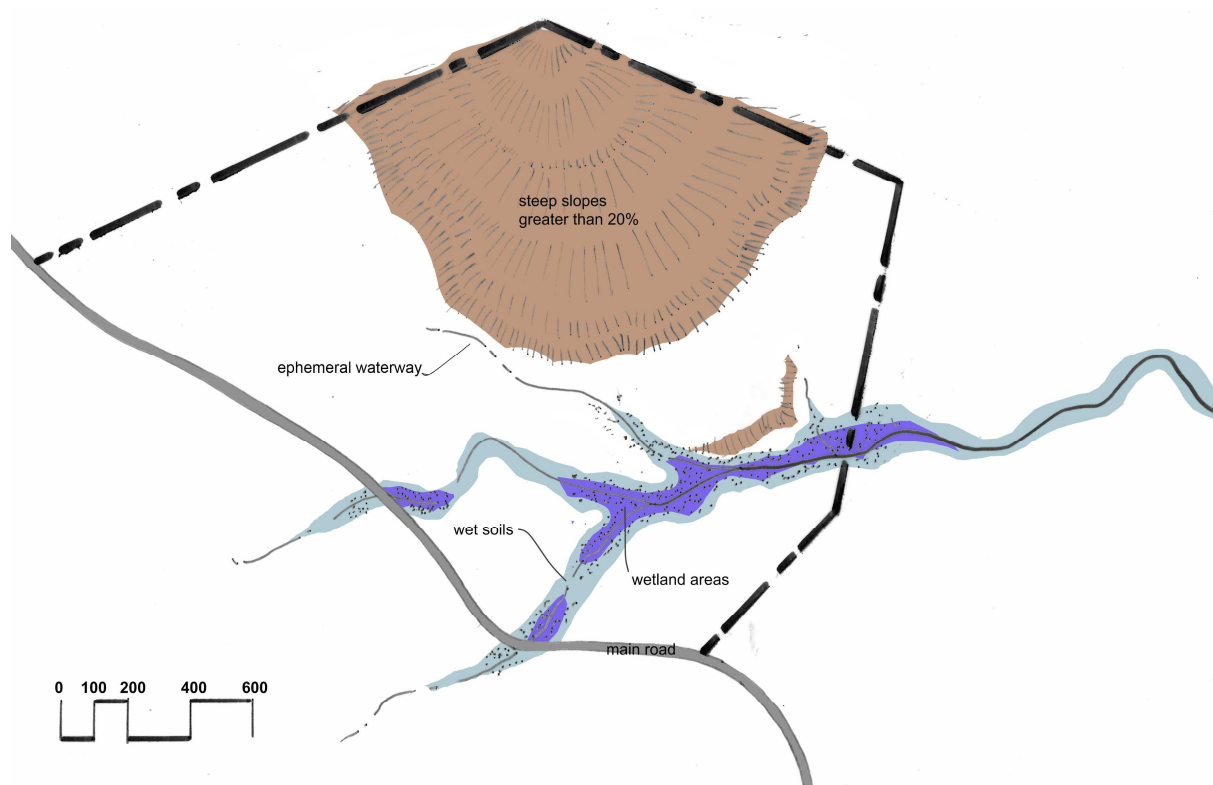
A design process has three broad stages:



IDENTIFICATION

The first stage of the design process is site identification. This may include:

- Appraisal of existing landscape character – at varying contexts – regional, local, on site.
- Identifying different landscape types; key landscape features; prominent natural landforms gullies, ephemeral and running waterways, hills, ridgelines, valleys, coastal.
- Existing buildings and their type and character
- Identifying relevant planning provisions.



This example shows a property of approximately 200ha in area. The property borders a main road, and the peak of a prominent hill. There are areas of steep slopes, gentle rolling open pasture, streams and wetland areas and an ephemeral water course. These features are broadly identified on the site identification plan.

Depending on the type of activity proposed and its location, it may be necessary to consider identification of key features beyond just the immediate site, such as linkages to the lake, vistas prominent landscape features, continuation of ecological corridors beyond the site.

The existing planning provisions are important to determine the potential yield possible within the site, as well as other matters to be considered, such as earthworks, building bulk and location, areas of important natural, landscape, cultural or historic value.

SITE ANALYSIS

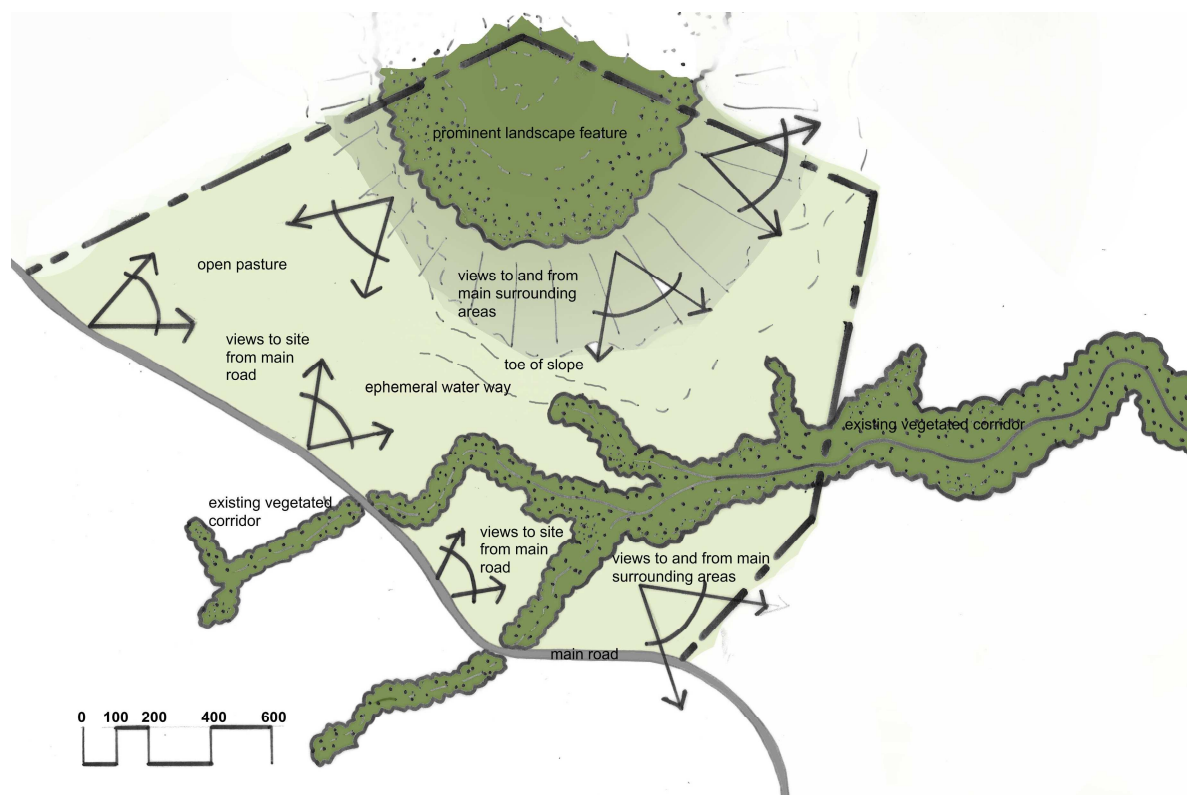
The second stage of the design process is site analysis. This may include:

- Identifying the opportunities and constraints of the various areas from a landscape and rural character and rural use perspective.
- Considering the different landscape types and their potential sensitivity to change.
- Identify potential for connecting, creating, enhancing wildlife corridors, and potential for recreation corridors – walking, biking, or bridle paths.
- Considering where important areas are to be retained and protected from development, and those that have the ability to absorb development.

Other environmental factors that may influence the location of development include:

- High wind areas
- Erosion Issues
- Contaminated sites
- Historical sites and sites of significance
- Fault lines or Natural Hazard Areas
- Electricity Transmission lines, or designations.

Refer to the Taupō district plan for specific provisions relating to these matters.



This example analyses the key site features and assesses how sensitive they may be to change, including the key views, prominent features, and how any existing vegetation impacts on visual corridors.



This step further analyses the key vistas and main viewing locations, and highlights areas less sensitive and potentially more suitable for development sites, any required mitigation planting, and existing vegetation to be retained, and potential ecological links or areas where net environmental gain can be achieved.

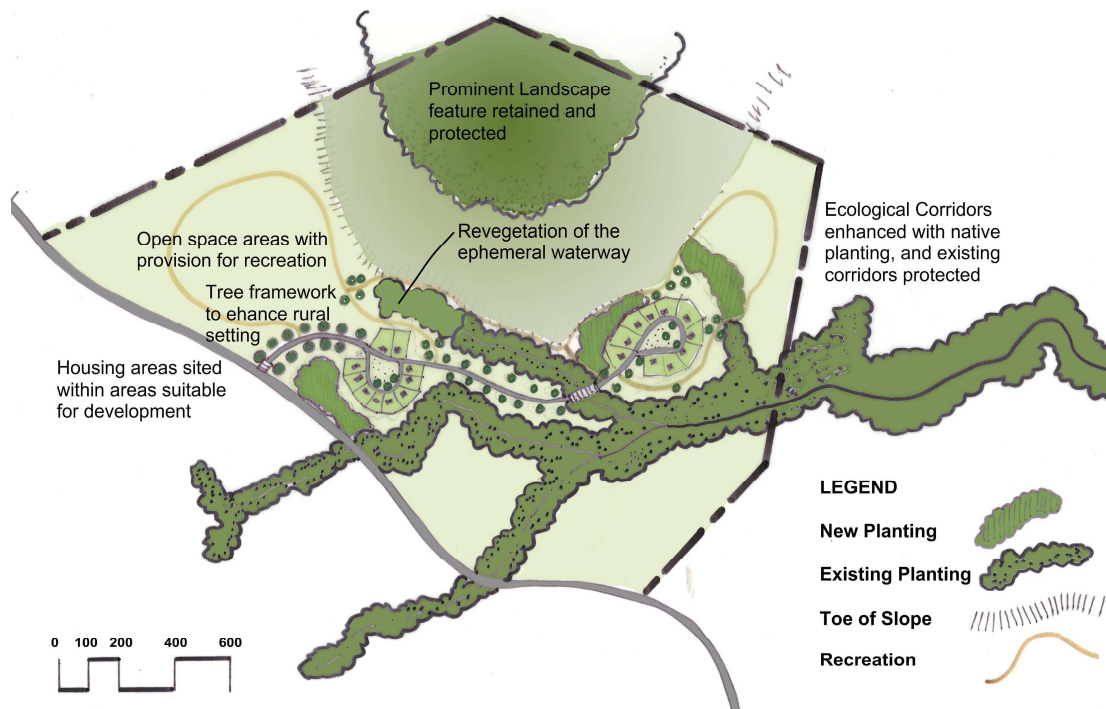
The example shown uses colour to differentiate between such areas, or different graphics, so that it is clear to see where such areas are located within the site. This process generally requires an 'overlay' approach, so that the previous identification and analysis maps are layered to show where the sensitive and less sensitive areas exist.

DESIGN

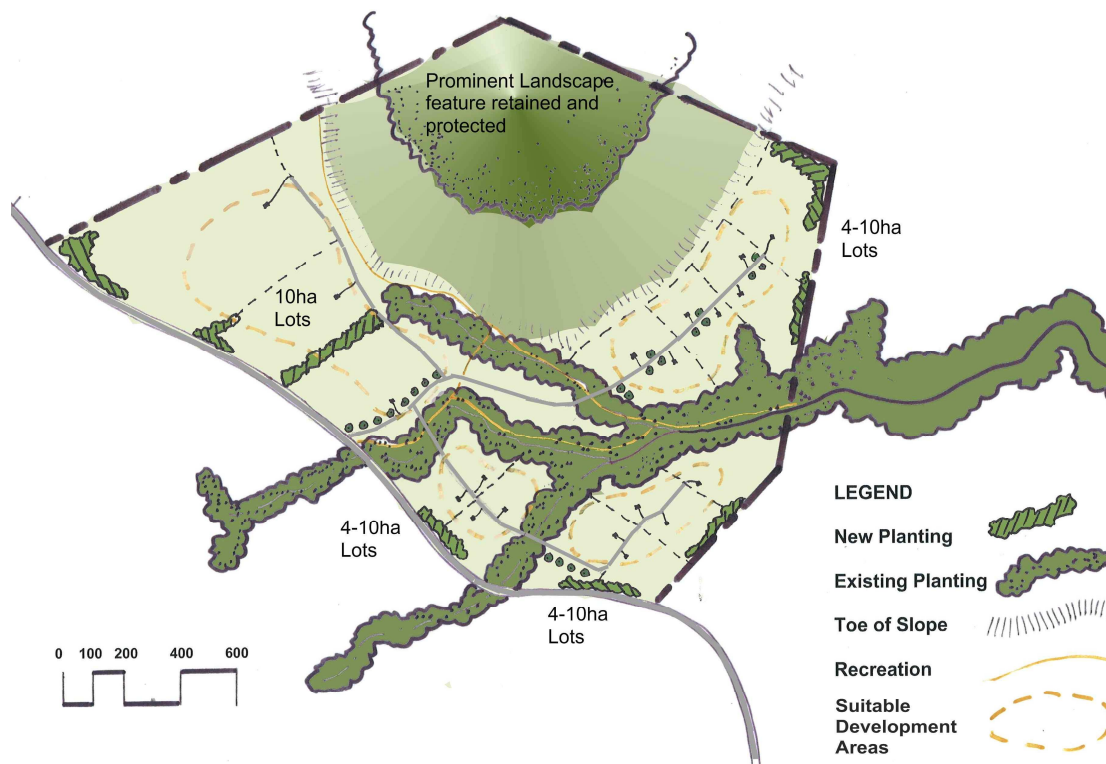
The third stage is translating the above into design. There is no one way in which to design an area and depending on the types of planning provisions, there will be a number of possible options. The key point is that relationship of the final design to the analysis and identification should be clear. It should be based on the opportunities and constraints identified from the identification and analysis stage.

The following shows two different examples of proposed subdivision design based on the number of lots possible within the site. While the examples produce different outcomes, they both use the identification and analysis steps to determine suitable development locations and sensitive areas to be retained.

The first example is a 'cluster' type development designed under the District Plan rule 4b.3.9 as a restricted discretionary activity.



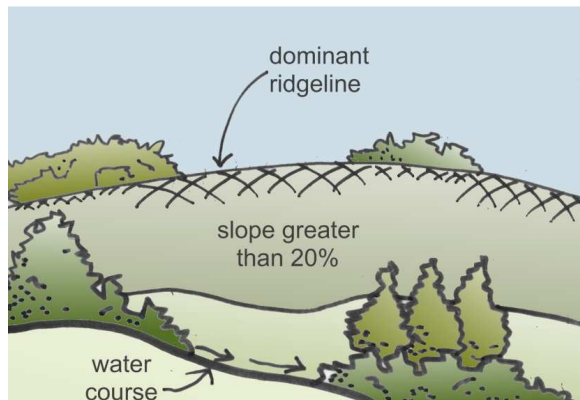
The second example utilises a range of lot sizes that reflects the rural amenity and character and maintaining open space based on the policies of the Rural Chapter of the District Plan, and would be assessed as a discretionary activity.



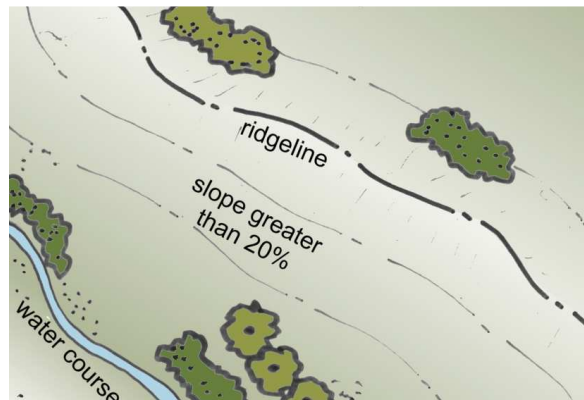
Depending on the type of proposed activity, and the planning requirements, the key message is that the final design should show elements that have been considered through the previous design stages through a rigorous and transparent process. The following diagrams show examples of how rural subdivision design can maintain rural amenity and character.

Subdivision Examples

Identifying areas sensitive to change, such as prominent ridgelines, water courses, and existing vegetation. (Relates to Policy 3b.2.2.x.d).

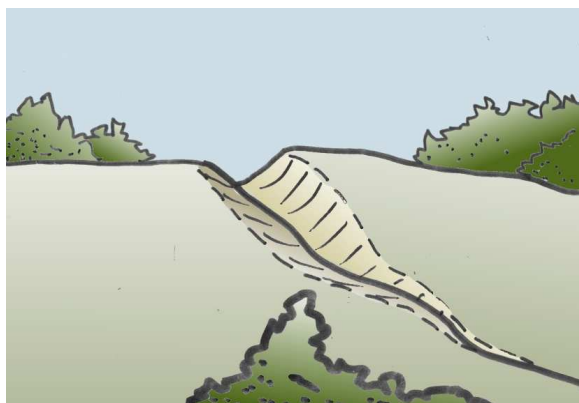


In this example, sensitive areas such as dominant ridgelines, water courses and vegetation are identified, which may lead to avoidance from built structures, protection, mitigation or enhancement.

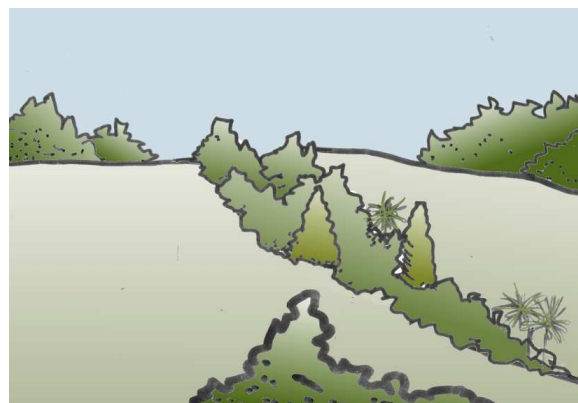


The example is shown in plan view. Sensitive areas may be identified on plans that show their location, along with areas more suitable for subdivision of land (see also section on Design Process).

Retiring steep land which is not appropriate for more intensive farming or further development. (Relates to Policy 3b.2.2.vii)



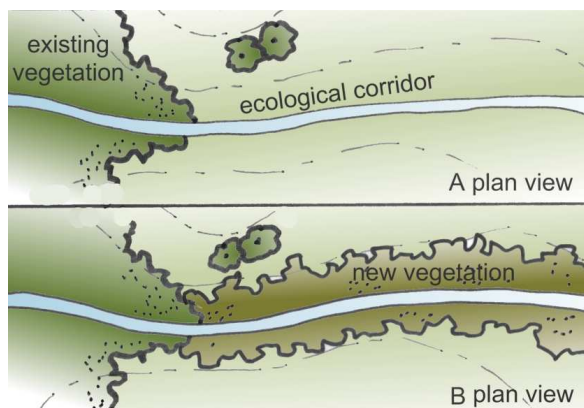
This example shows areas that are prone to erosion, or contain ephemeral or constant waterways, being identified and managed through farm management plans or development proposals. This may include areas that have steeper slopes with loss of soil, or gullies that have the potential to enhance the rural character.



This example shows erosion prone areas and waterways fenced and revegetated to assist in protecting soil and water quality. Such features in the landscape can considerably enhance the overall rural amenity and character within rural subdivisions, by providing a natural feature within the subdivision.

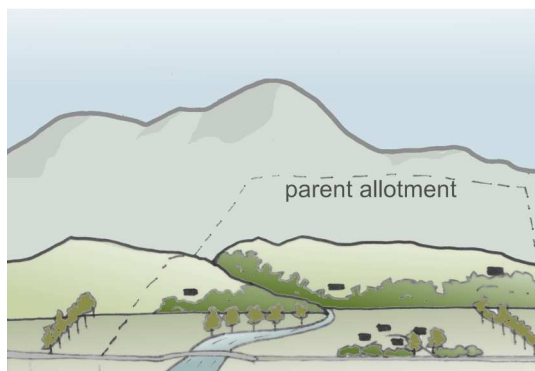
Subdivision Examples

Restoring ecological corridors and ecosystems. (Relates to Policy 3h.2.3.k, and rule 4b.3.9)



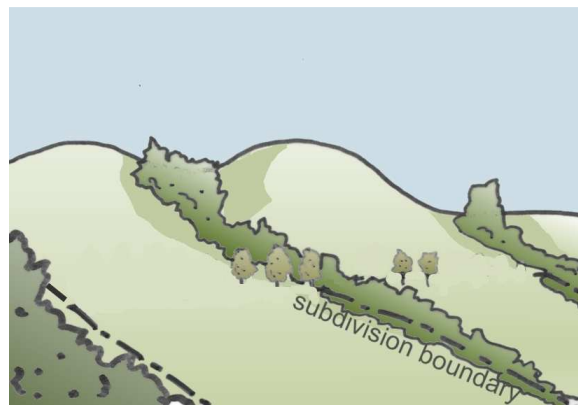
This example is looking for possible ecological restoration and connections when considering rural subdivision or farm management plans. Benefits can be achieved to the water quality and natural wildlife that may live within the area. The example then identifies where such areas can be enhanced.

Maintaining significant open space area in order to increase net environmental gain. (Relates to Policy 3b.2.2.x.a)



In this example, lot sizes vary to protect sensitive areas, open space, water, and vegetation features that contribute to the Rural Character. The Rural Cluster rule of the District Plan provides guidance on this type of subdivision.

Subdividing in a way that creates a diversity of lot sizes that reflects the rural amenity and character. (Relates to Policy 3b.2.2.i)



This example considers the effect of subdivision boundaries on the landscape. Some lots may better reflect the natural topography by varying size and shape to follow key topographical features. Such examples may also need to consider fencing and stock requirements.

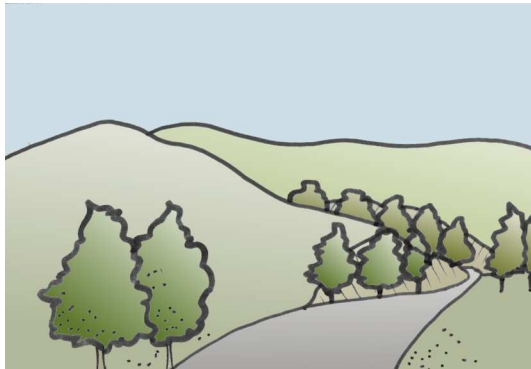
Designing Fencing and Lighting to complement the existing character of the landscape. (Relates to Policy 3h.2.3.c)



Rural fences and gates, along with lighting contribute to the overall rural character. They tend to be timber post and rail, post and wire, galvanised steel and natural materials like stone. Closed board paling fences may be screen planted to minimise an 'urban' character.

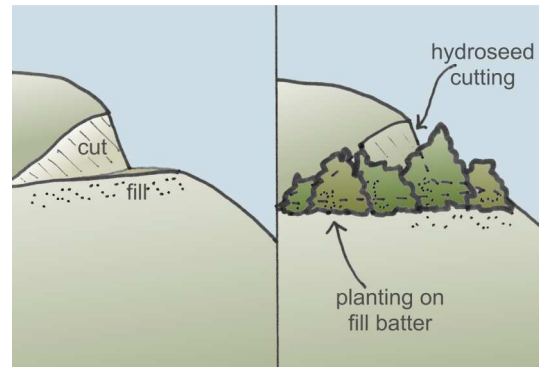
Earthworks Examples

Locating Earthworks to minimise disturbance of the natural landform, character, and natural patterns. (Relates to Policy 3h.2.3.h).



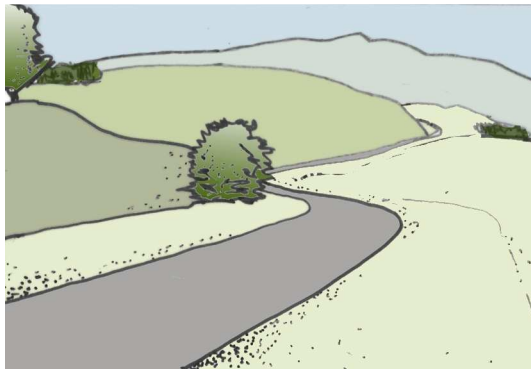
This example shows road layout designed to minimise disturbance of the natural land form by following the natural gully. Where earthworks are required, they have been softened with tall vegetation. When planting near roads have regard to road safety.

Vegetating earthworks or surrounding areas to soften abrupt changes in landform, or reduce visible ‘scarring’ of the landform. (Relates to Policy 3h.2.3.i)



In this example, cut slopes are hydro-seeded following earthworks. Where planting is not possible due to the cut slope, revegetation is planted on the fill batter with species that will help soften the visual change of the cut – when planting near roads have regard to road safety.

Designing roading layout in keeping with the rural character and to minimise visual prominence, where possible by following topography. (Relates to Policy 3h.2.3.g)

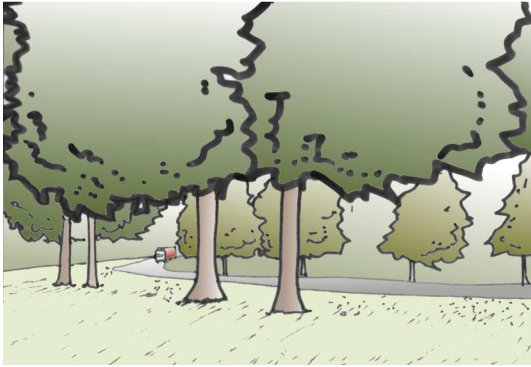


In this example, the road alignment has wide grassy berms and follows the existing topography, therefore minimising visual prominence in the landscape, and enhancing the rural driving experience. This example also minimises need for earthworks.



The road layout example is shown in plan view, whereby the road follows the land contour.

Earthworks Examples



This example shows avenue planting along rural roads, where such planting does not impact on road safety standards. This example can help reinforce a rural character and minimise the visual prominence. Following the existing topography where practical can enhance the rural character and rural amenity driving experience.



This example shows wide berms and entry planting to settlements, which can further enhance the rural setting.

Minimising the level of infrastructure through appropriate siting of buildings and structures. (Relates to Policy 3b.2.2.x.e)



Where appropriate to do so, this example shows built structures grouped together to minimise overall change in landscape character, protect wider areas of open space, and minimise the level of infrastructure and earthworks required to service such areas.



In this example in plan view, sharing roads and infrastructure where appropriate can minimise the level of earthworks required in the landscape, and therefore the visual impact on rural character and amenity. Such developments require careful site design; refer to the Rural Cluster rules in the District Plan.

Building Location Examples

Designing and locating built structures in a way to integrate with the landscape character. (Relates to Policy 3b.2.2.x.e, 3h.2.3.d).



This example shows a building designed to follow the natural topography where safety and practicality allows. This house is stepped to follow topography, minimising earthworks and providing improved integration with the topography.

Locating built structures to avoid sensitive areas such as prominent ridgelines. (Relates to Policy 4b.1.7.a)



In this example, the building is sited below sensitive ridgelines so that their form is not seen against the skyline, and a backdrop of land is maintained.

Locating built structures to avoid sensitive areas such as prominent ridgelines. (Relates to Policy 4b.1.7.a)



In this example, where it is not possible to avoid the skyline, existing vegetation patterns are used to provide a green vegetated backdrop to buildings, which further helps integrate them with the landscape.

Maintaining and enhancing the character and amenity of the district's lakes and rivers and adjoining land. (Relates to Policy 3k.2.1.i)



This example considers the use of natural materials and retaining existing vegetation when building adjacent to water environments. In many cases it is not necessary to completely screen built structures. In such cases consider a balance between maintaining key view shafts, access to sun light, and integration of built structures with the natural water setting.

Building Location Examples

Using existing vegetation patterns to help integrate buildings with the landscape. (Relates to Policy 3h.2.3.i.b)

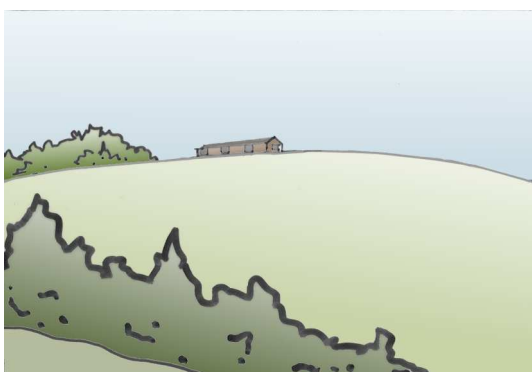


When considering building locations, this example uses existing vegetation patterns that can accommodate new built structures. This example retains existing vegetation to help integrate buildings with the landscape.

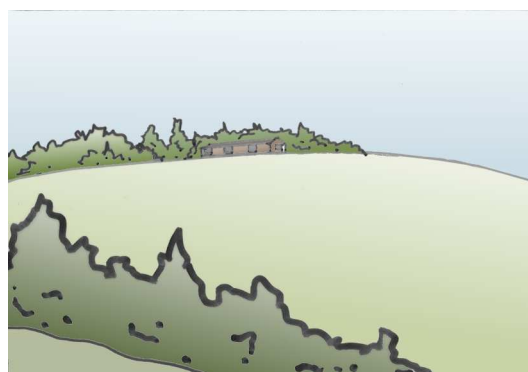


The example shows a new building located within the existing retained vegetation pattern. The building also retains a backdrop of topography to further assist in integrating the structure with the natural landscape features.

Using planting to help integrate buildings with the landscape and considering the effectiveness and appropriateness of proposed mitigation to address adverse landscape and visual effects of buildings. (Relates to Policies 3h.2.3.i, 3h.2.1.g, and 3h.2.2.f)



In this example, where built structures are likely to be visible on the skyline, there is consideration of the potential visual effects to surrounding areas. This example shows a building on the skyline without mitigation planting. Refer to section on mitigation planting guide.



This example shows the same building with mitigation planting to provide a visual green backdrop, and therefore better integrate the building with the landscape. If mitigation planting is used, consider the appropriateness of the proposed vegetation to achieve the purpose of minimising visual impact of the building. More information on mitigation planting can be found in the next section of this guide.

Built Structures Examples

Using building materials with recessive colours to help integrate with the landscape. (Relates to Policy 3h.2.3.e and rule 4b.2.7.c).



This example shows the use of building materials with natural tones and colours that integrate well with the landscape. Such materials include natural timber finishes, stone, and paint finishes of neutral shades. Consider the use of locally sourced materials.



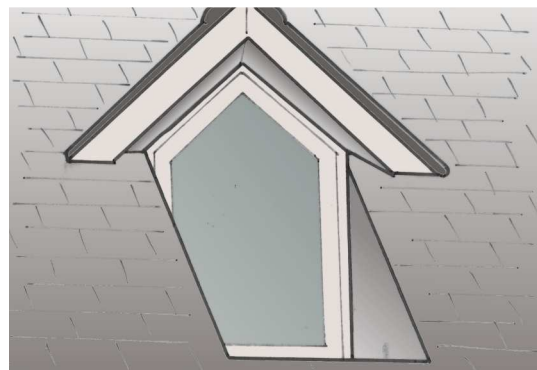
In this example, the structure over the water uses natural materials that enhance the natural water setting. Timber and stone structures tend to integrate well with the natural water setting.

Examples of neutral shades include colours from the British Standard BS 5252 range, groups A07 to A 14, and B21 to B29. These are often used to help integrate built structures within outstanding and amenity landscape areas. The colours are neutral shades with low light reflectance levels. Most paint shops will have samples of the BS 5252 range.

Designing buildings to minimise light reflectivity levels. (Relates to Policy 4b.1.7.c)



In this example, the effects of glass reflectivity in flat roofed or adobe house are minimised by recessing or setting the window into the wall to create a shadow casting effect. Shadows can help to minimise the level of light that is reflected from glass surfaces.



In this example, the effects of glass reflectivity where windows are located within rooflines are minimised by setting the window into the roofline and providing an additional overhanging eave. Overhanging eaves can help to provide a shadow cast over the glass surface, therefore minimising the level of light that is reflected.



This example shows overhanging eaves and wide verandah roof line to help minimise reflectivity levels of glass surfaces.

Mitigation Planting Guide

This section discusses some of the characteristics of mitigation planting, and the types of information that the Council will require if mitigation planting is recommended as a way to manage landscape and visual amenity affects of proposed activities. For mitigation planting to remain effective long term, it must be suitable for the location and site characteristics. A planting plan and schedule of plant species is the main tool used to show how mitigation planting will be used to manage landscape and visual effects.

Depending on the types of mitigation planting used, the planting plan may include:

- A plan view diagram showing the areas or location of plants that will be planted, and their location relative to the proposed activity.
- A planting list or schedule outlining the proposed species of plants and trees, and a maintenance schedule. Where practicable, it is good practice to use native plants that are sourced locally.
- Indication of timing of planting – usually preferable during autumn or winter when watering requirements are minimal.
- For revegetation or screen planting in particular; the proposed spacing between plants.
- The size or nursery grade of plants proposed at the time they are planted.
- The size the plants are anticipated to grow to in 5 to 10 years, and the effect anticipated after this time.
- Any particular site preparation requirements – such as standard planting technique, ground preparation, soil requirements, mulch, and removal of existing weeds.

There are different ways in which mitigation planting can be undertaken. These may include:

- Retaining and protecting existing vegetation/trees where they are well sited to deal with landscape and visual effects.
- Active planting of vegetation/trees to manage landscape and visual effects.
- Passive revegetation – fencing an area that has been subject to grazing or vegetation suppression, and enabling the vegetation to re-establish on its own.

A maintenance programme may be required to ensure that mitigation planting achieves the desired outcome over the long term. This may include:

- Method of weed control – mulch, spot spraying, hand or mechanical weeding, herbicide.
- Procedure for replacing dead or dying species.
- How the planting is to be maintained on an ongoing basis – what types of pruning or trimming are considered acceptable if at given the type of mitigation planting proposed.
- Pest management – plant weeds and/or animal pest control.
- Who will be responsible for the initial establishment of the plantings and ongoing maintenance?
- How will the maintenance be monitored?

TYPES OF MITIGATION PLANTING

There are different types of mitigation planting often used to manage potential landscape and visual effects of activities. The types of mitigation planting used in a proposed activity will depend on the sorts of effects to be mitigated, and the overall outcome to be achieved. For instance, if a view from proposed buildings to surrounding areas is desired, determine whether it is feasible to recommend mitigation planting that may block such views.

The following may be considered as a guide to mitigation planting:

- Use of plant species characteristic of the local area – looking at existing species and patterns of vegetation associated with buildings, access-ways, and hills.
- Retention of significant trees and hedges where they help reinforce the pattern within the local landscape, such as a boundary shelter belt.
- Natural regeneration of native vegetation.
- Use of planting around building sites to screen and soften structures.

The following section outlines the types of planting that will help achieve a different outcome. A suitably qualified person should be consulted for species selection in relation to specific site requirements.

Reinforcing the rural character



- Either deciduous or evergreen trees
- Specimen or stand alone trees – open central trunk, single leader, forms bushy crown
- Avenue planting, shelter belt planting, or clusters of specimen trees.

Screen planting



- Evergreen species
- Dense bushy growth, multi stemmed, leaves from ground to top.
- Plant spacing to produce closed vegetation.
- Typically grow to a height greater than 3m, or taller than structure being screened.
- Note that vegetation should not cause conflict with safety.

Backdrop planting



- Usually similar to above, but may include either deciduous or evergreen trees.
- The tree or plant species selection will need to grow to a height greater than the structure or activity to which a green backdrop relates to.

Retain Existing Vegetation



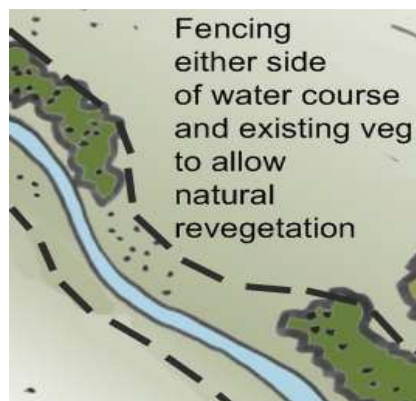
- If the intent is to utilise existing vegetation as a way to help screen and soften built structures or earthworks, ensure vegetation is able to be protected during development, and will not cause conflict with safety, over shadowing, or views.
- Mainly suits tall, dense, and evergreen existing vegetation.

Revegetation planting



- Mixed native / indigenous species typically found in the area and adapted to the site requirements. Where practicable consider the using native plants sourced locally.
- May range in species selection from two or three key nursery species, to a wide range of diverse native species, depending on the site requirements.
- May include bird attracting species for terrestrial environments, or water/wet soil adapted species for wetland and aquatic environments.

Passive Revegetation



- Requires areas with good top soil layer, and seed bank. Not suitable for areas where earthwork cuttings have been undertaken.
- Will require fencing and active weed management to remove unwanted species.
- Long term results – not recommended for areas that require immediate to medium term mitigation.

For further information about this design guide contact the planning staff at the Taupo District Council.



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Glossary

*as defined in section 10 of the Taupō District Plan

***Amenity Values**

The same meaning as in the Resource Management Act - Those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes.

***Bonus Lots**

Allotments created within the Rural Environment under rule 4e.1.12, which are associated with the formal protection of part or all of a nominated Significant Natural Area.

***Built Structures/Building**

Any structure, temporary or permanent, movable or immovable excluding:

- Fences or walls of 2m in height or less above ground level or retaining walls of 2m in depth or less below ground level;
- Masts and poles less than 2m in height above ground level;
- Radio and television aerials (excluding dish antenna greater than 1.2m in diameter), less than 2m in height
- Uncovered decks not more than 1m above ground level
- Uncovered swimming pools no higher than 1m above ground level
- Up to 0.6m of overhanging eaves
- One building per allotment not exceeding 2m in height and 6m² in GFA provided the height to boundary performance standard is met;
- Temporary structures associated with maintenance activities and construction works;
- Structures that are for the purpose of erosion control or flood protection, for example, debris dams.
- Building includes the construction, erection, alteration, relocation or placement on an allotment, of a building.

Contour

A line across a slope connecting points of the same elevation.

***Earthworks**

Removal, deposit, or redistribution of any material on a site which alters the natural or existing ground level.

Ephemeral Water Course

Any stream or waterway that does not have continual or constant water flow, and varies in depth and presence of water at various times of the year.

Does not include artificial watercourse such as that used for irrigation canal, water supply race, or canal for supply of electricity power generation and farm drainage.

Erosion

Removal of topsoil faster than the natural soil forming processes can replace it, due to natural, animal, and human activity such as over grazing, cultivation, forest clearing, and earthworks.

***Foreshore Protection Area**

20m measured horizontally from the landward boundary of the from the 'bed' (as defined in the Act) of any identified lake or river, or for Lake Taupō, measured from the Nui-a -Tia boundary, whichever is the further inland.

Hydro-seed

The spraying of a slurry of seed, fertiliser, and paper or wood pulp over a surface to be revegetated. Often used to 're grass' exposed earthworked areas.

***Landscape Area**

Refers to both Amenity Landscape Areas and Outstanding Landscape Areas as identified in the Taupō District Plan.

Mitigation

Measures taken to off-set adverse environmental effects of certain activities.

Mulch

Cover or layer on the surface of soil to protect it and assist in retaining moisture within the soil.

***Net Environmental Gain**

Recognises that a level of adverse effect may be balanced by measures that result in an overall positive environmental outcome.

Revegetation

The establishment of vegetation typically used to recreate native and indigenous vegetation environments that formally existed in an area.

***Significant Natural Areas**

Areas of significant indigenous vegetation and/or significant habitats of indigenous fauna as identified in the Taupō District Plan.

Subdivision

Dividing a parcel of land or parent allotment into smaller pieces (lots), usually for the purpose of constructing residences to be sold individually.