



# Te Tuhi Estate

Whakaroa Road  
Taupō

**Design Statement**

11 August, 2023



**applicant**

Te Tuhi Estates Limited

**property**

Lot 4 DP408156 (121.1545 ha)

Lot 2 DP408156 (120.611 ha)

Lot 1 DP378264 (101.451 ha)

Total (343.2165 ha)

Lot 3 DP408156 – Telecoms - exclude

Lot 5 DP408156 – Telecoms - exclude

**proposal**

The subdivision of the site to create 112 rural residential allotments with land use consent for 112 residential units, plus land use consent for a tourist lodge and an equestrian centre.

**consultants**

landscape architect



urban designer



engineer

planner



ecologist

transport engineer



geotech



economist



architects



archaeologist

agricultural consultant



cultural impact/advice

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# 01 Introduction

**This design statement has been prepared to support the resource consent application for the subdivision and development of land at 387 Whakaroa Road, Taupō.**

**This application provides background information on the proposal and outlines the design rationale employed by the multi-disciplinary team to produce a scheme which is site-specific and sensitive to its natural landscape.**

The site measures approximately 344 hectares and currently accommodates a sheep and cattle farm and associated barns and sheds. The site occupies an elevated promontory on the northern edge of Lake Taupō between Taupō and Kinloch. Views from the site include Taupō, Kinloch, Tongariro and Ruapehu maunga and the Kaimanawa mountain range and represent possibly the broadest view of Lake Taupō and 360° views over the Central Plateau.

The proposal adopts an active and appropriate “post-farming” land management strategy which reduces nitrogen and sediment run-off to the lake, sequesters carbon and regenerates native bush. The development includes 112 lots with identified building platforms, supported by a tourist lodge and wellness centre and an equestrian facility. These uses will enable approximately 85% of the site to be re-established as native bush to improve the ecological quality of both the site and the lake, and greater alignment with mana whenua values.

As the site is identified by Taupō District Council as an Outstanding Landscape Area (OLA65), the over-riding development objective is to facilitate a net gain in landscape quality and value through the restoration and enhancement of the ecological and landscape quality of the site while providing high quality housing and supporting the local and international tourist economy of Taupō.



**Figure 1 Te Tuhi Point**  
basemap source: TDC GIS

0m 200m 500m 1km





# 02 Location

The site is located on a peninsula to the south-east of Kinloch, above Whakaipō Bay and opens to a 180-degree view over Lake Taupō. By road, it is approximately 18km from the centre of Taupo and from Kinloch, with Whakarōa Road providing the only road access. Due to its elevation, it forms part of the wider landform which rings the lake on its northern edge. Land along the site's southern boundaries is owned by the Department of Conservation and accommodates part of the Great Lakes Trail.



**Figure 2** Location - Wider Context

basemap source: Google



**Figure 3** Location - Local Context

basemap source: TDC GIS

..... Great Lakes Trail (W2K)





# 03 Site Description

The site is part of an Outstanding Landscape Area, identified and described by the Taupō District Plan as:

*" High physical prominence when viewed from within the lake and from Kinloch. Forms part of the framing view from Kinloch settlement, with Te Kauwae Peninsula. Combination of bush clad areas on the headland, with grazed pasture on the plateau. Presence of farm structures including sheds, and transmission aerial.*

*Highest point 707m above sea level (330m above lake level). Although not as physically prominent as some of the other lakeside cliffs, have very high cultural significance to Kinloch Community and local iwi".*

The full site measures approximately 344 hectares. The elevation and topography of the site gives it a predominantly north west/ south east aspect. The majority of the site has access to lake views. The landform is varied and sloping, with the steepest slopes rising to form a broken ridge line through the middle part of the site. There are some level "knolls" around the top and central parts of the site. A farm track provides vehicle access from the entry on Whakarōa Road to the southern point. There are a number of telecommunication towers and minor power lines which traverse the site.

The characteristics and landscape values of the site are strongly influenced by its existing rural land use, juxtaposed against a "skirt" of native bush around the base of the site and on the peninsula, and its location on and above Lake Taupō. The site is predominantly grassed as pasture for sheep and cattle. It is dissected by a number of intermittent drainage corridors and there are some stands of native bush. The site is mostly surrounded by mature native bush forest which accommodates the Great lakes Trail, hiking/biking trails, and there are some individual isolated specimen trees dispersed across the site.



Figure 4 Aerial and Contour

basemap source: Google



Approaching the site on Whakarōa Road



Typical land form



**Figure 5** Aerial, Contour and Vegetation

Basemap sources: Mansergh Graham + Google + TDC GIS  
Contour Interval = 5m


 existing vegetation



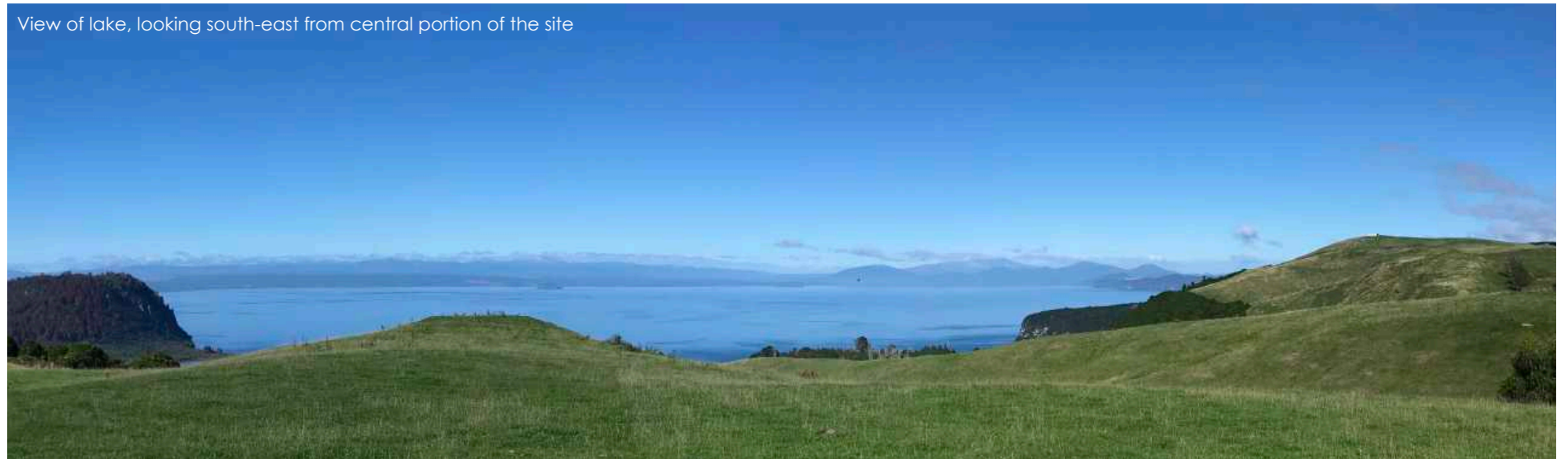


Figure 6 Panoramas

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View of lake, looking south-east from central portion of the site



View across site from entry on Whakaroa Road





# 04 Site Analysis

A multidisciplinary approach to site analysis has been followed to identify the opportunities and constraints associated with the application site. This section includes a summary of information provided by the team's technical experts. Please refer to individual reports for more detail.

Given the site is identified as an Outstanding Landscape Area (OLA65), landscape character and visual amenity is considered the primary constraint. As such, key physical and experiential factors were identified and assessed to identify locations that are better suited for development and areas that were more sensitive to change.

The overall site attributes that were identified and considered for design and development include:

- potential visual impact of development (particularly on higher elevations)
- interfaces with adjacent Significant Natural Areas, including the escarpment
- interface with and connection to the adjacent land on the north also zoned "Rural Environment" in the Taupō District Plan
- the proposed roading connection to Whakarōa Road, its nature and alignment
- the current farming activity, and the effect of grazing on the volcanic soils within the site and the runoff of nutrients into Lake Taupō
- the drainage corridors as both a constraint to development and an opportunity to provide open space recreation/outlook and vegetation to assist with the visual integration of development
- the existing vegetation cover and patterns on site
- the opportunity to protect and enhance the natural character of the site and surroundings

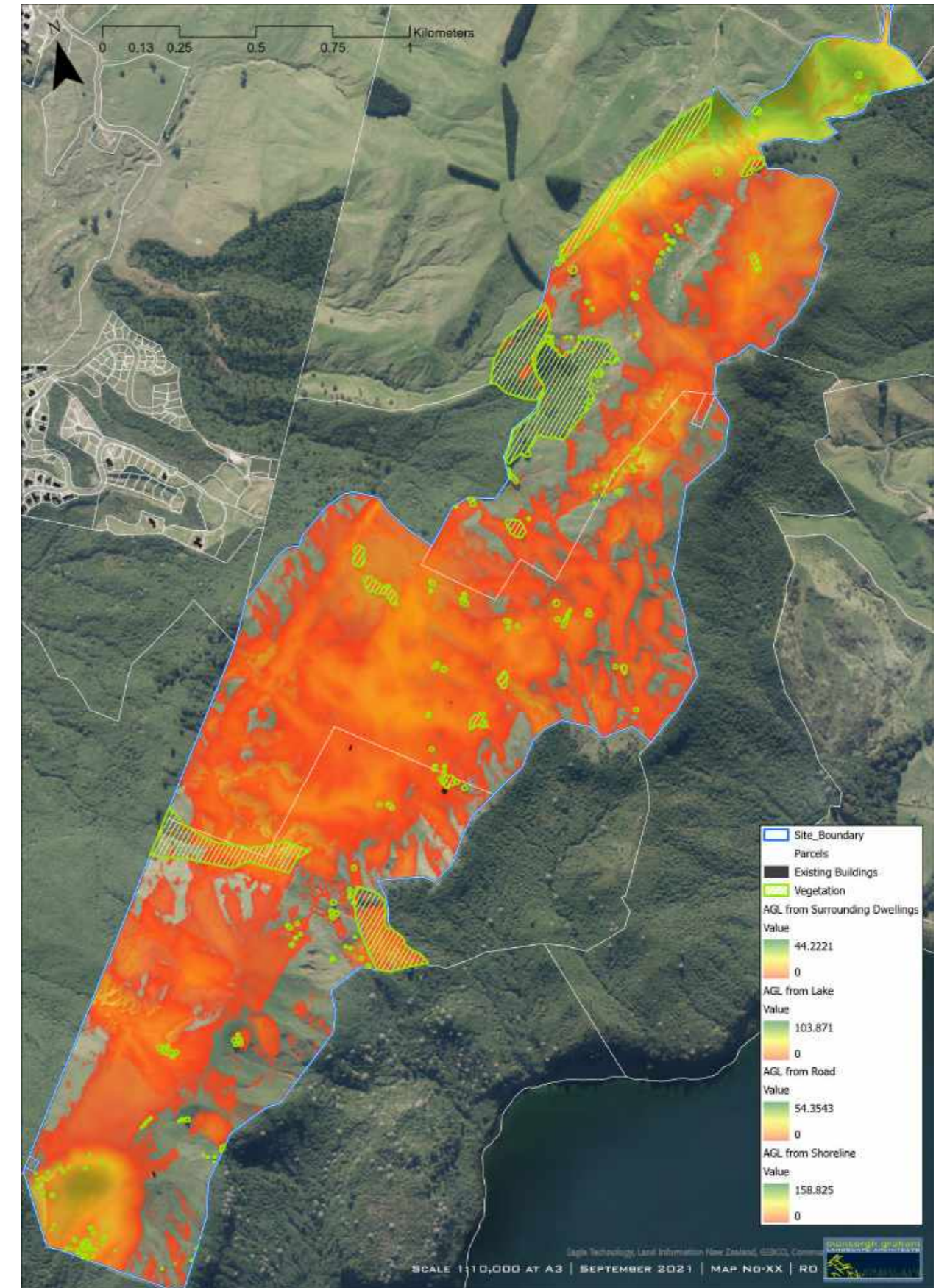


Figure 7 Visibility Analysis





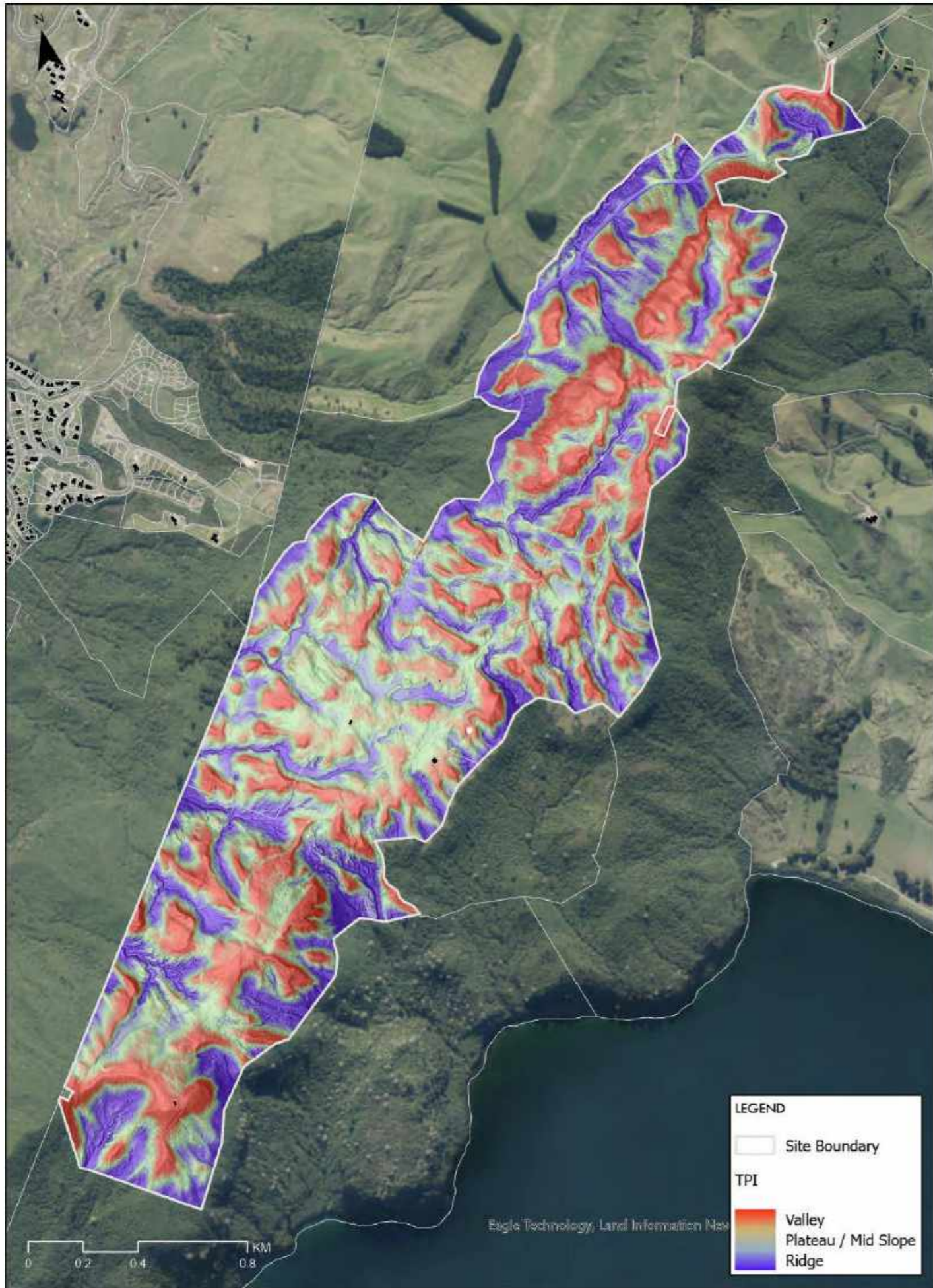


Figure 8 Topographic Position Index (LVA, Mansergh Graham)

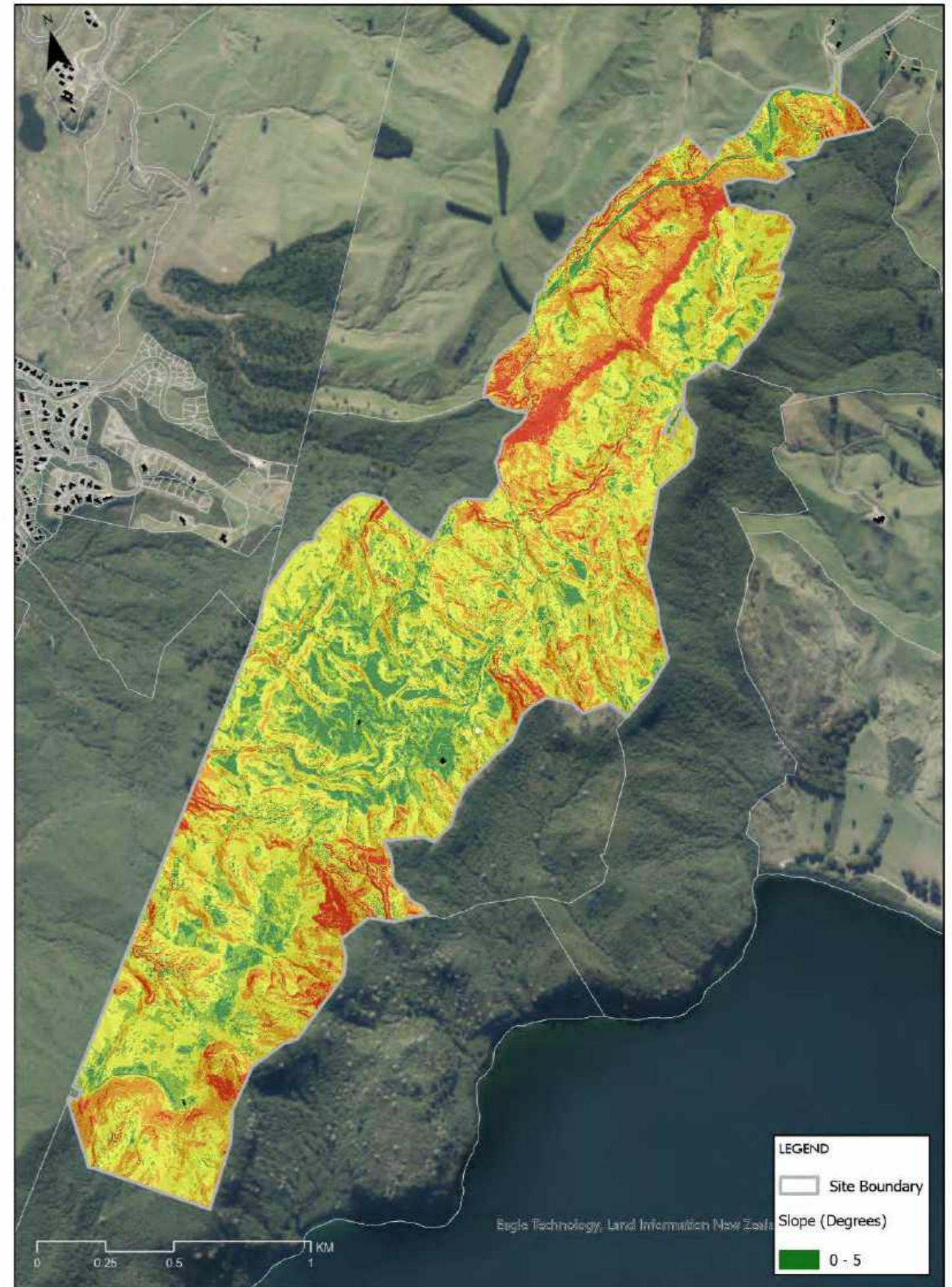
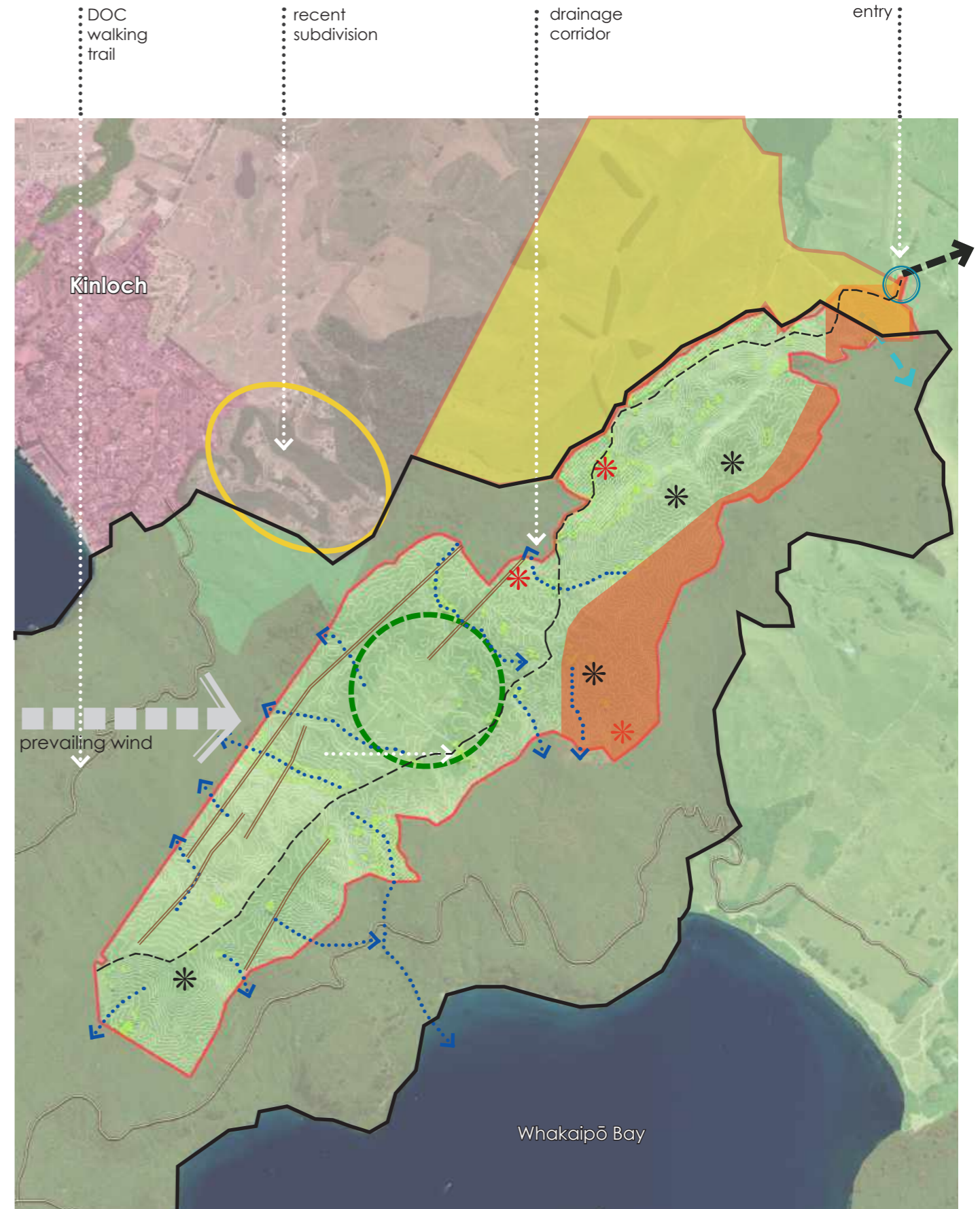


Figure 9 Slope Analysis (LVA, Mansergh Graham)



- the topography of the site and constraints associated with steep slopes and potential effects of earthworks
- the existing pattern and location of farm tracks
- the challenge of achieving efficient and economic residential density and minimising significant landform modification, especially at higher elevations
- potential to capture lake views and solar gain for residential amenity
- the potential pedestrian and cycle network across the site and connections to the wider trail network links to DOC land
- the potential for more active recreation reserves as part of the wider open space network
- how land management and ownership of proposed open spaces can best contribute to identified landscape values in the long term
- infrastructure constraints, including the restriction on nitrogen generation and need to protect water quality in the Taupō catchment
- provision of water supply and waste water treatment
- the existing powerlines and telecommunication infrastructure
- existing active fault lines and necessary separation distances for dwellings



**Figure 10 Summary Site Analysis**  
 basemap source: Google & TDC GIS



# 05 Vision and Methodology

**A unique rural lifestyle community which respects, restores and manages its sensitive natural landscape while enjoying access to native bush walks, excellent lake views and shared facilities.**



A landscape and ecological design approach has been used, which follows the “design with nature” philosophy, to create a subdivision concept which respects the inherent landscape capability of the site.

During the design process, the key features and landscape types of the site and existing landscape character were identified. Analysis was undertaken in the form of opportunity and constraint mapping to identify which parts of the site are most suited for development while maintaining the landscape and visual amenity values associated with the wider surrounding landscape character.

The following key factors have been considered:

- Topography
- Existing Vegetation
- Outstanding Landscapes Areas, Amenity Landscape Areas and Significant Natural Areas
- Mapara Riparian Areas and Revegetation Area
- Development density and relationships
- Existing planning mechanisms and protected areas
- Visibility of the lake
- House site and building visibility
- Accessibility
- Geotechnical constraints (fault lines)

Recognising the identified site constraints, the methodology for the design process has included:

- a site visit to understand the unique location of the site and existing and future context
- appreciating the site specific opportunities and constraints and their implications for development
- analysing the site itself with respect to physical characteristics, natural features, and interfaces etc.
- reviewing the relevant objectives and policies for the rural environment, the outstanding landscape area and the approach recommended in the Design Guide for Rural Subdivision (Taupo District Council 2012)
- developing and agreeing a vision and design drivers for the design team
- working with the project landscape architect and planner to explore a potential framework for supportable development
- preparing a concept plan for testing by the wider project team
- utilising a three dimensional model to understand and test design proposals
- revising the overall concept plan in response to feedback
- advising on the detailed design of the development with respect to roading, lot layouts, circulation etc. and consistency with design intentions
- on-site testing of each preliminary building platform with the project designer, landscape architect and engineer
- identifying/categorising each building platform with respect to its visual sensitivity
- identifying individual lot boundaries along with functional balance lots that align with practical on-going land management
- preparing a mitigation planting plan to ensure landscape and visual integration of development
- finalising bespoke building platforms for each lot that integrates with associated mitigation planting
- identifying specific standards and design guidelines to address sensitivities at a detailed level





# 06 Design Drivers

**Taupō District Plan - Rural Environment Zone Objective 3b.2.1** is for land "to maintain and enhance rural amenity and characters".

"Maintain and enhance the amenity and character of the Rural Environment by providing land use performance standards and subdivision rules to **manage the scale and density** of development."

"Recognise that the Rural Environment encompasses a range of landscape characteristics, amenity values and land use patterns and activities when considering the appropriateness of development within the zone."

**The Taupo District Council Design Guide for Rural Subdivision** which identifies the following important attributes of rural environments:

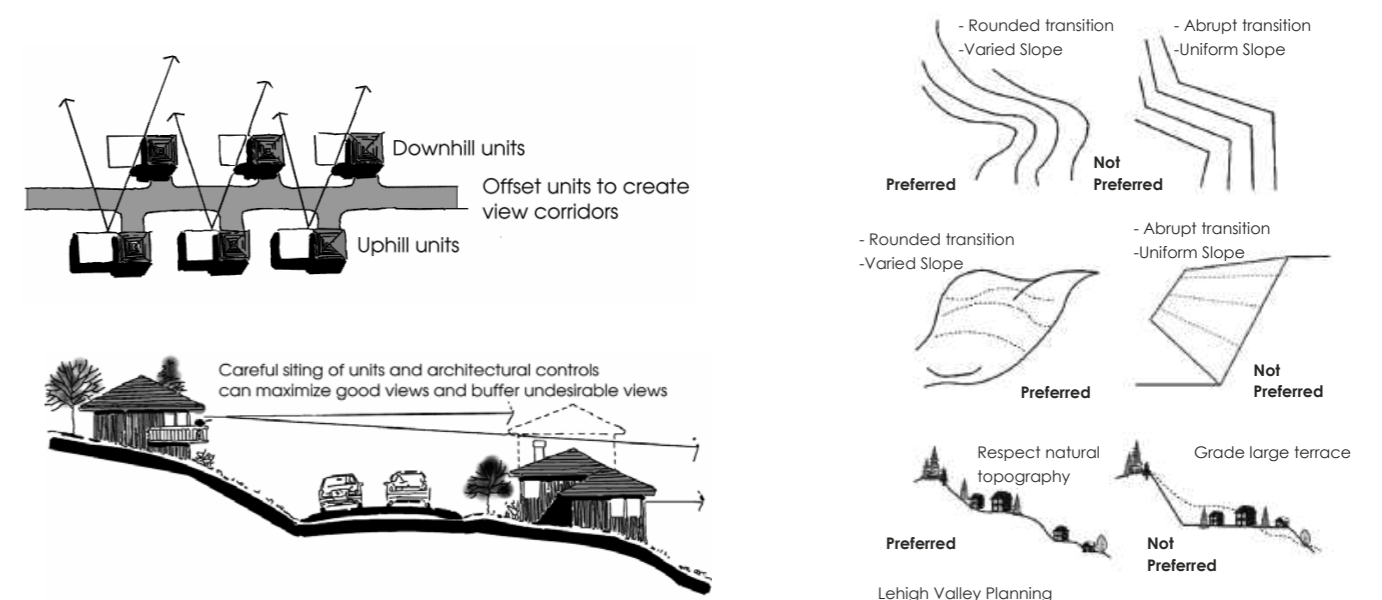
- Widely separated buildings and structures, and allotments with very low site coverage and limited areas of impervious surface.
- Buildings are a minor element in the landscape and generally subservient to the surrounding environment.
- Where larger buildings exist, these are generally associated with 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.

The proposal recognises that:

- the application site forms part of a landscape that is experienced and valued by different people in different ways and that the site is of value to Tangata Whenua.
- various relationships exist (physical, experiential, and associative) between the site and the surrounding landscape and lake.
- some parts of the site (such as the ridgelines and gullies) are more sensitive to change.
- opportunities exist for both feasible development and the protection and enhancement of the natural character of the site and surrounds.
- a carefully considered design solution is required for the site.

The following high level design drivers have informed the design:

- balance the retention of landscape values with wider imperatives of sustainable development, including the need for efficient land use and reduced carbon
- respond to the varying visual sensitivity of areas of the site (as defined by the Landscape and Visual Assessment)
- minimise the potential impact of development on topography, and need for land modification and earthworks
- retain the existing vegetation and significant specimen trees where possible and appropriate
- retain and maximise the opportunity of drainage corridors to provide outlook/relief, pedestrian and cycle networks.

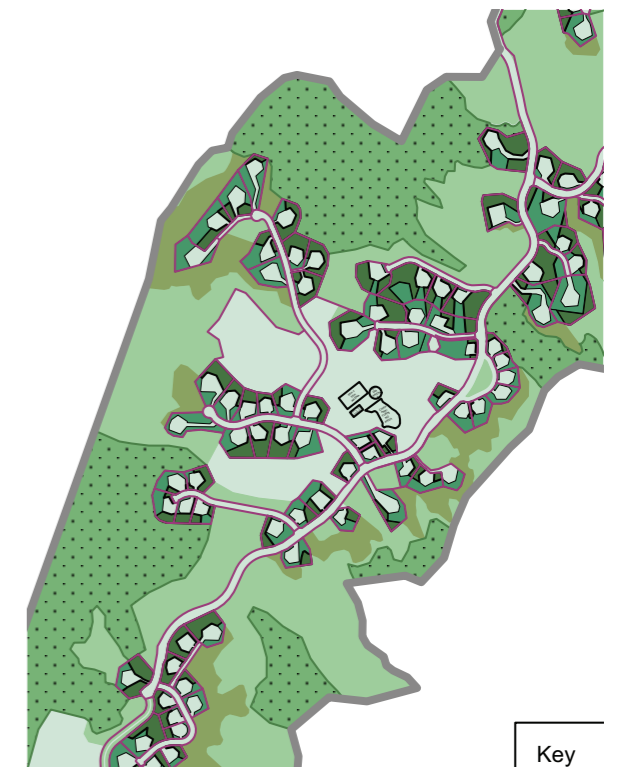
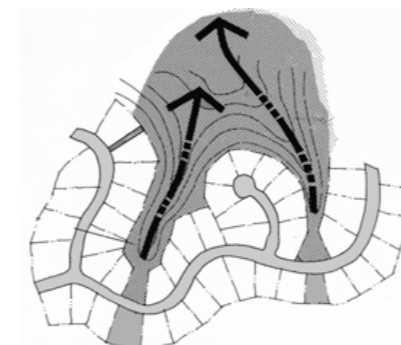
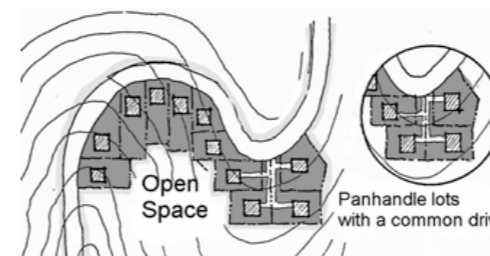
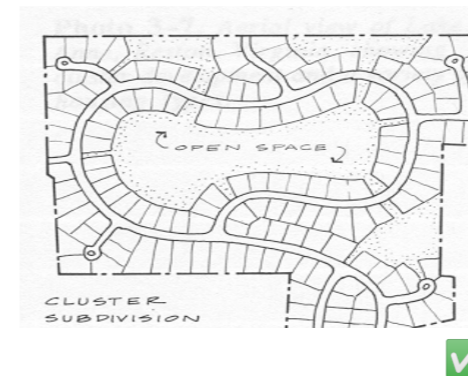




- restore ecological corridors across the site, linking existing vegetation within the reserves on either side of the peninsula
- include land uses/facilities open to the general public to allow the wider community to access/enjoy the site and view
- retire steep land which is not appropriate for farming or further development
- minimise necessary roading and driveways and adopt rural road design
- provide a connected bridle trail and/or recreational trail network

The following design moves have been made to achieve the above design intentions:

- the existing farm track has informed the proposed road network, located to follow the contours of the site where possible to minimise earthworks and disturbance of the landform
- A "cluster" approach to development has been adopted to identify "manageable" lots generally between and enable large parts of the site to be collectively managed and planted
- individual building sites have been carefully selected and categorised according to their visibility
- individual building platforms have been identified in locations which balance view capture and solar gain with visual impact
- buildings platforms minimise driveway lengths where practical and provide for planting between dwellings
- building platforms allow for mitigation planting between dwellings
- planting strategies for dwellings and the lodge have been developed to mitigate the potential effects of the development, including
  - the establishment of approximately and backdrop planting around the proposed development
  - the integration of earthworks with the adjacent natural landform
  - on-lot planting to reduce the visual prominence of all buildings when viewed from outside of the site
- specific development standards have been crafted in response to visual sensitivity and compliance therewith ensured through consent notices
- bespoke covenants and design guidelines apply to all lots to ensure high quality site development, architecture and landscaping
- more detail (and land use consent applications) has been provided for the lodge and the equestrian centre in order to illustrate and assess outcomes associated with these facilities





# 07 The Proposal

Figure 11 Illustrative Development Plan

The adjacent figure illustrates the development concept for the site.





Figure 12 Subdivision/Scheme Plan



**LEGEND:**

- PROPOSED LOT BOUNDARY
- EXISTING LOT BOUNDARY
- EXISTING ROAD BOUNDARY
- EASEMENT BOUNDARY
- RT  EXISTING TITLE BOUNDARY
- RESIDENTIAL LOT
- FACILITY LOT
- TREE PLANTING LOT



**Figure 13 Mitigation, Restoration and Enrichment Planting Strategy**

The subdivision and development mitigation strategy uses multiple techniques to mitigate the effects of the proposed development on landscape character and visual amenity.

These include:

- The establishment of approximately 250ha of indigenous planting to screen and backdrop planting around the proposed development.
- The integration of earthworks with the adjacent natural landform.
- Design measures to reduce the visual prominence of all buildings when viewed from outside of the site.

The mitigation planting strategy is implemented over three stages.

**Phase 1. Mitigation Planting**

Mitigation planting for screening of the proposed houses, will be planted in the 1st planting season following the development of the subdivision to screen/visually integrate the development into the landscape. Planting will be protected by consent notice and will be the responsibility of lot owners to maintain in perpetuity.

**Phase 2 Native Restoration Planting**

Restoration planting will follow the mitigation planting over a 4-6 year period and will visually screen and integrate the development into its surroundings and to restore and enhance the natural character values of the landscape using ecologically appropriate plant species from the Taupo Ecological District. Long term maintenance of all areas of Restoration planting will be the responsibility of Te Tuhi Estate

**Phase 3. Enrichment Planting**

Enrichment planting will occur approximately 2 years after the implementation of each block of restoration planting (or when there is sufficient canopy cover to offer adequate protection), introducing a greater diversity of species across the site to ensure the progressive development of a diverse and sustainable ecosystem. Planting will be staged over 4-6 years. Amenity planting will occur around the Lodge/Chalet and Equestrian Centre and approximately 28 ha of land will be retained as pasture. Road reserves will be integrated with adjacent restoration planting using strategically placed clusters of a single species of native trees. All road berms will either be grassed or planted in native species

Phase 2 & 3 will be registered for carbon credits and will be maintained for the duration of the consented activity.

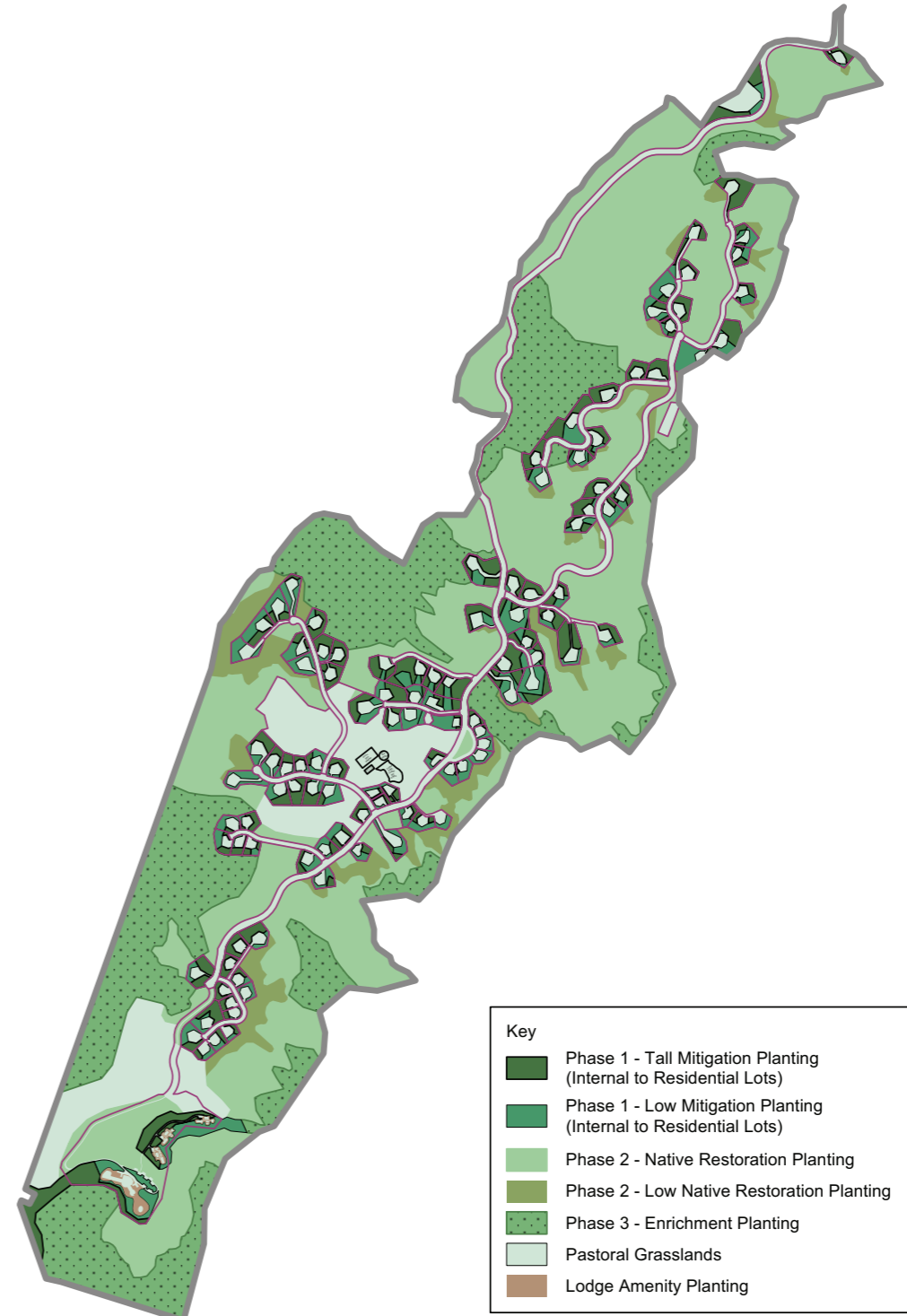


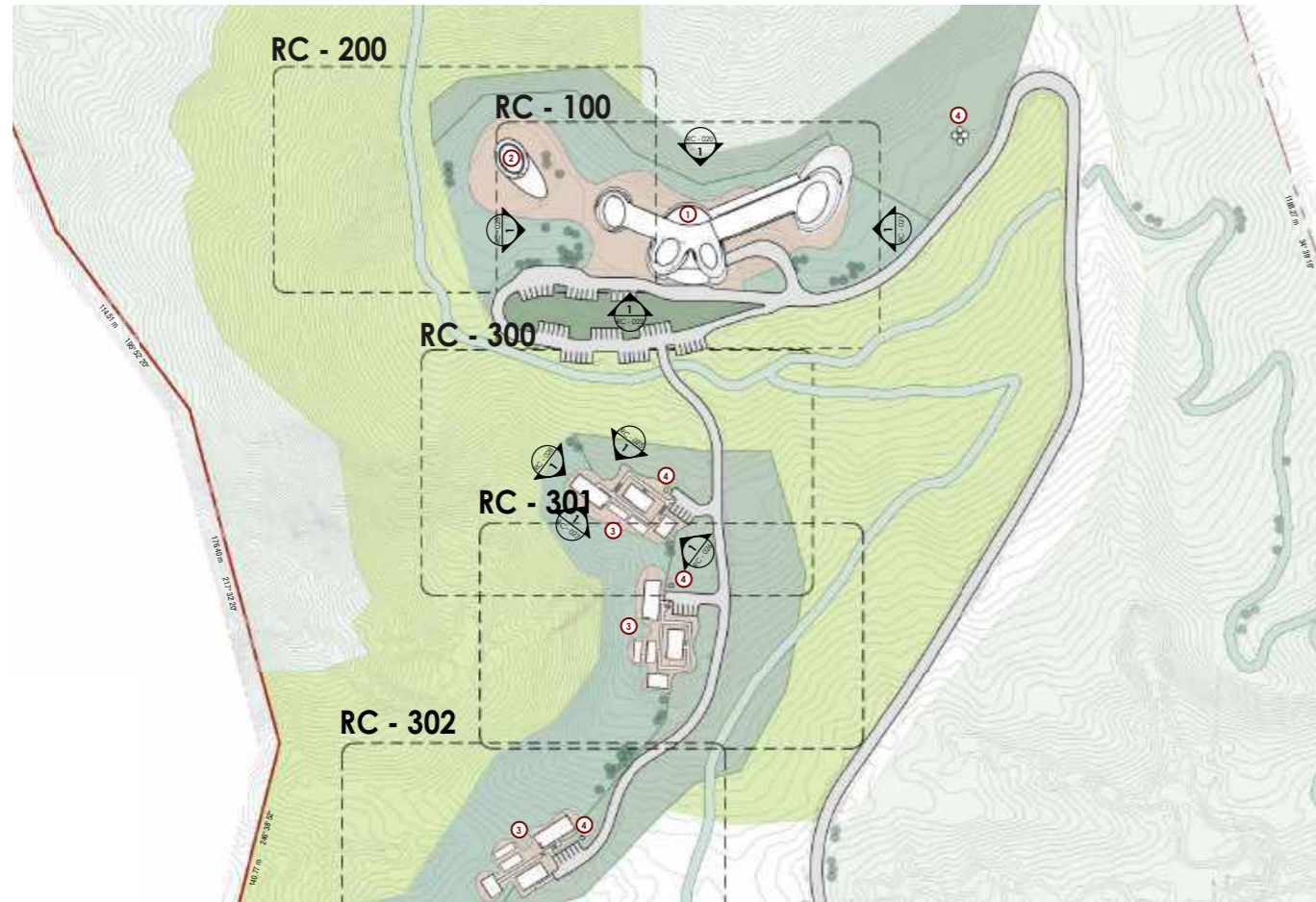


Figure 14 Lot and Cluster Illustration

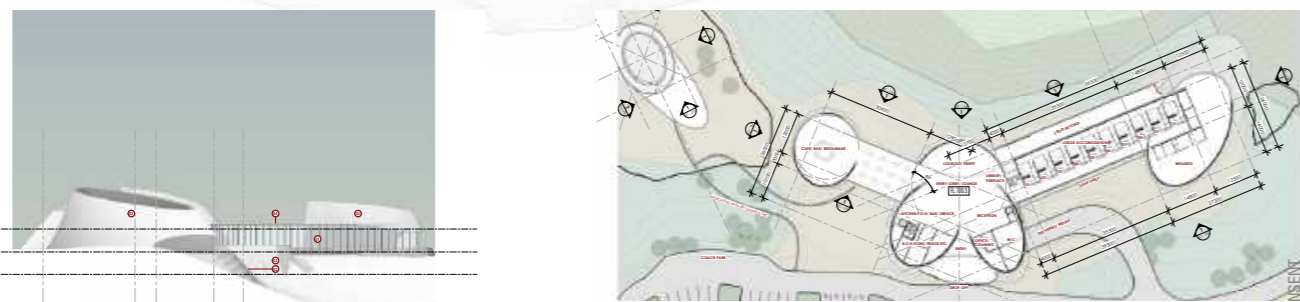
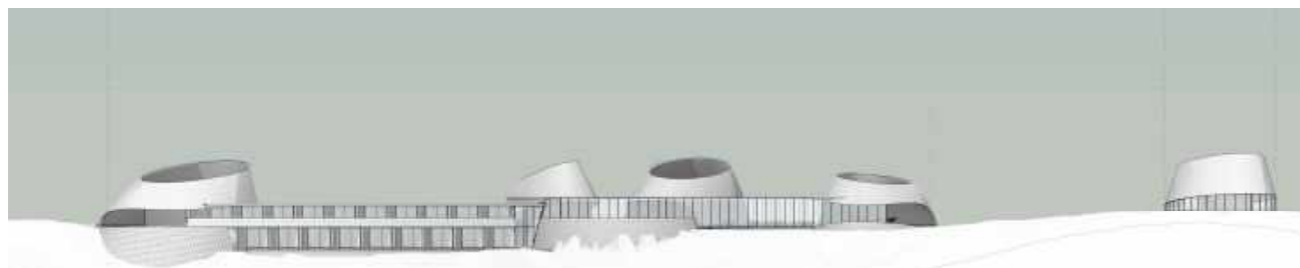
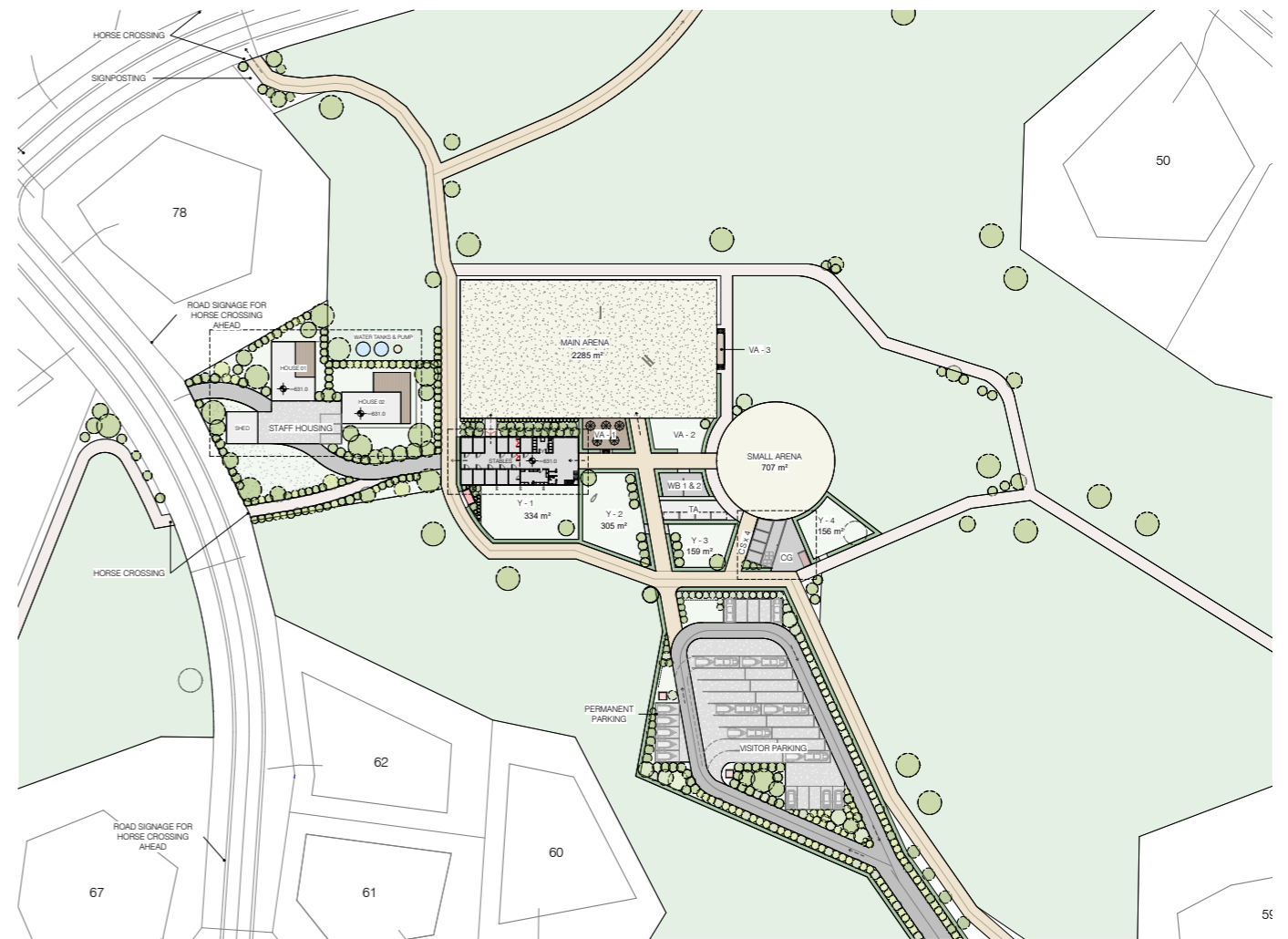




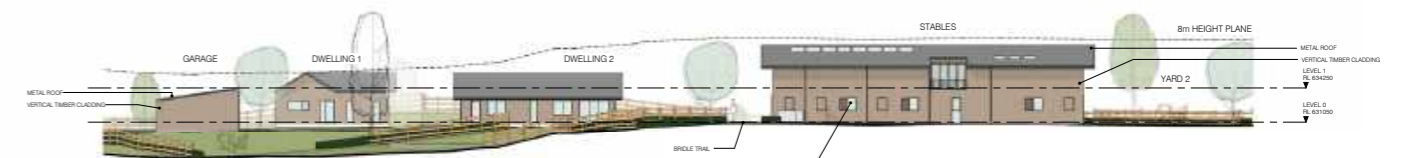
## Te Tuhi Lodge



## Te Tuhi Stables



⊕ SITE ELEVATION - NORTH  
1:200 @ A1 1:400 @ A2



⊕ SITE ELEVATION - SOUTH  
1:200 @ A1 1:400 @ A2



# 08 Conditions and Guidelines

To ensure development mitigates the potential effects of development on landscape character and visual amenity, the Te Tuhi Estate Condition of Consent, Covenants and Design Guidelines have been developed. This document includes requirements focussing on mitigation planting, building design, fencing, lighting to ensure an overall positive net effect on the natural landscape.

The erection of dwellings on the 112 sites will be permitted (i.e. is within the scope of the consent) if dwellings comply with the relevant development requirements. Consent Notices will be applied to ensure the appropriate Development Controls are met and accordance with them will be assessed by Taupō District Council as part of the building consent stage. The Development Controls are "rules and standards" imposed through conditions which effectively replace the underlying Rural Environment Zone rules and standards. The proposed controls generally align with those of the "Cluster Area" category as this is the most consistent with the proposal. The proposed standards are also aligned with the Te Tuhi Estate Subdivision and Development Mitigation Strategy where necessary.

The Te Tuhi Estate Design Guidelines apply to all lots as a condition of consent. Compliance with the design guidelines will be assessed by the developer (or developer's representative).

*Please see to separate document*

## Planting and Building Requirements

All buildings are located within identified building platforms. The Building Requirements adopt the site categorisation established by the Landscape and Visual Assessment and thereby apply a "sliding scale" to balance flexibility and restriction. For all sites, they address:

- location and number of buildings
- maximum building footprint
- building height
- lighting

## Covenants

A number of covenants are imposed by Te Tuhi Estates Limited to ensure a high quality development eventuates and is maintained in the long term, including the appropriate and effective management of open spaces.

## Design Guidelines

The purpose of guidelines for the development of dwellings and associated landscaping is to:

- provide a clear and consistent framework to guide development and decision making for individual land owners
- ensure a high minimum standard for development which ensures overall quality and protects value
- ensure architecture respects the natural landscape setting through carefully considered building form and material
- ensure a consistent "look and feel" whilst allowing variety and visual interest
- provide all stakeholders with clear design direction and ensure a high design quality is achieved for all sites

This document is non-statutory and sits outside the Taupō District Plan. While Taupō District Council will confirm adherence to the relevant Development Controls (imposed via consent conditions) at the time of Building Consent, consistency with these guidelines will be determined by the Te Tuhi Design Review Panel.

The guidelines address:

- site and building layout
- building form
- building materials
- landscaping
- fencing
- sustainability





# 09 Assessment

## Taupō District Council Design Guide for Rural Subdivision (March 2012)

Whilst this guide is non-statutory and that :

*"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."*

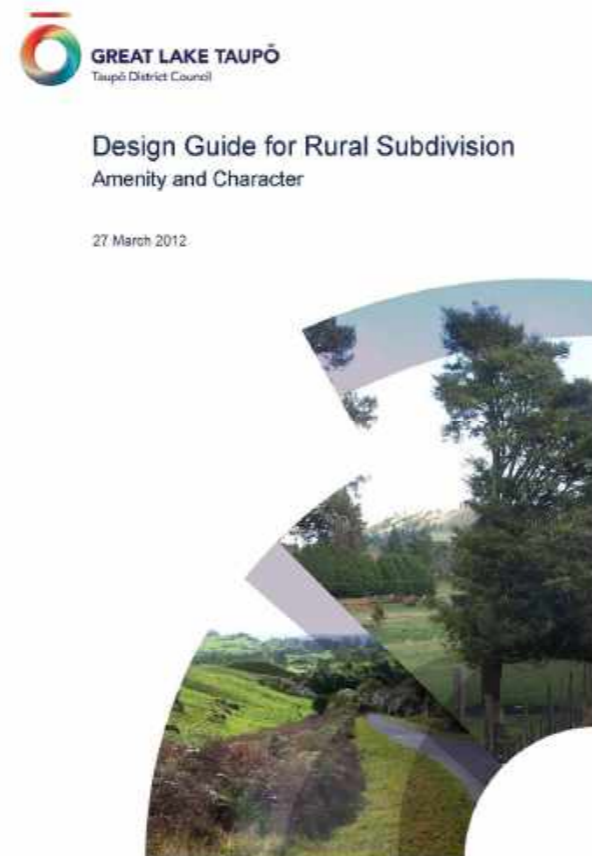
This document is considered an appropriate tool to assess the proposal.

### Alternative Scenario Comparisons

The proposal is a non-complying activity under the Operative District Plan as it infringes the minimum lot size required in the Rural Zone (10ha).

Instead of complying with the relevant standards, a site specific design approach has been adopted which is based on "design with nature" and seeks to develop the site while improving the landscape, ecological and visual amenity values of the site.

However, it is considered appropriate to test the outcomes and potential benefits of the proposal against a number of other potential (consentable) development scenarios.



### 9.1 Taupō District Council Guide for Rural Subdivision (March 2012)

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. This guide identifies the following as important attributes of rural environments:

- 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.

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

- Design Process
- Subdivision
- Earthworks
- Built Structures
- Building Location
- Mitigation Planting



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## Design Process

The site's landscape character has been described by the Operative District Plan and the project landscape architect, particularly with respect to its visual prominence when viewed from the lake, the combination of bush clad gullies and grazed pasture, and presence of farm buildings and transmission aerials.

The Landscape and Visual Assessment includes a detailed analysis of topography and elevation, existing vegetation, aspect and visibility and all these attributes have informed the proposed subdivision design and building locations. Viewpoints of the site from the lake edge, and surrounding roads and dwellings have been used to identify a "sliding scale" of visual sensitivity which in turn, has informed the proposed development standards and guidelines.

In addition to landscape and visual assessment outcomes, opportunities and constraints for development have been identified. (See Section 4 of this report for further information).

Whilst the planning provisions of the Operative Plan have been considered, along with the originally consented plan based on the "cluster" concept, careful and detailed analysis of the site has driven the design. This process has included "ground truthing" every individual building platform on site to ascertain views, aspect and solar orientation with a view to maximising residential amenity while mitigating landscape and visual impact.

A large and skilled multi-disciplinary technical team has worked collaboratively and iteratively together to identify development drivers and craft an appropriate and supportable proposal which supports both development and natural landscape restoration/enhancement. The team includes:

- landscape architect(s)
- ecologist
- planner(s)
- geologist
- architects(s)
- urban designer
- transport/traffic planner
- civil engineer(s)
- property consultants
- rural economist
- project manager

A set of core design principles were adopted for the project that recognises and respond to the Outstanding Natural Landscape status of the site and its surroundings: These include recognising that:

- the application site forms part of a landscape that is experienced and valued by different people in different ways and that the site is of value to Tangata Whenua;
- various relationships exist (physical, experiential, and associative) between the site and the surrounding landscape and lake;
- some parts of the site (such as the ridgelines and gullies) are more sensitive to change;
- opportunities exist for both feasible development and the protection and enhancement of the natural character of the site and surrounds;
- a carefully considered bespoke design solution is required for the site and provides the best opportunity for achieving a successful development.

### Subdivision - layout; allotment boundaries, access, planting

The "cluster" development technique was quickly adopted as the preferred approach to successfully accommodating residential development and limiting its potential effect on landscape character. The benefits of this approach for this site include:

- preserving large areas of open space which can be more effectively/economically restored and/or managed to achieve a net positive environmental gain;
- promoting efficiency with respect to infrastructure (roads and utilities) and construction cost;
- reducing access requirements and associated earthworks;
- promoting a sense of community/belonging within clusters.

Subdivision design has also applied the following methods:

- avoiding areas sensitive to change, such as prominent ridgelines, water courses, and existing vegetation (where possible);
- retiring steep land which is not appropriate for farming or further development has been retired and planting has been proposed in these areas;
- restoring ecological corridors through proposed planting, which link existing patches of vegetation within the site;
- locating the proposed accessways and following the contours of the site where possible to minimise earthworks and disturbance of the landform, landscape character, and natural patterns;
- locating development sites to avoid sensitive areas such as prominent ridgelines and other visually prominent locations within the site where possible so that the form of the dwellings is not seen against the skyline;



- 
- designing sites around the logical building platforms to limit visual effects associated with boundary fencing;
  - including a variety of site sizes;
  - proposing site-specific planting around the dwellings within the subdivision to help integrate the buildings with the surrounding landscape, reducing adverse effects on landscape and visual amenity values.

### Earthworks

The subdivision design has sought to minimise necessary earthworks by:

- following existing tracks where possible which have logically responded to more easily accessible gradients and routes;
- minimising road width/reserve to limit necessary earthworks
- adopting a road design with rural character (no kerbs where possible, road side swales etc.)
- locating building platforms close to the road where practical to reduce earthworks associated with driveways;
- locating building platforms on flatter land where possible to reduce primary earthworks;
- locating recreational trails (bridle and mountain bike) to maximise potential for more accessible gradients.

In addition, secondary earthworks are controlled by the proposed Conditions of Consent and mitigation measures included in the Te Tuhi Estate Design Guidelines.

### Built Structures

The proposed development standards and design guidelines for buildings and structures will ensure visually recessive development. These control the number, mass and form of buildings. Building colours and materials will be recessive to minimise light reflectivity and help integrate the proposed subdivision with the surrounding natural muted tones of the pastoral and bush-clad landscape.

Controls for fencing will promote rural character, open and green streets and restrictions on lighting also serve to limit light spill. No street lights are proposed.

### Building Location

Buildings have been located in response to the cluster development approach, topography, access and potential visibility. They have also been located to maximise solar access and view capture. The proposed Conditions of Consent and design guidelines address positive street interfaces and visual connections and promote social engagement and public safety.

A "high, medium and low" scale of development control has been adopted in relation to the potential visual sensitivity of building sites. This allows flexibility where possible while limiting effects in other locations.

### Mitigation and Restoration Planting

A comprehensive mitigation planting plan has been developed and its implementation and ongoing management/maintenance ensured through conditions of consent and covenants. The key objectives of the mitigation and site restoration approach are to:

- ensure that subdivision and development within the site do not result in significant (no more than minor) effects on existing landscape values and visual amenity of the site; and that
- the development results in a net gain in landscape quality and value.

Site specific mitigation and amenity planting has been proposed around the dwellings and lodge buildings to help integrate development with the natural landscape and reduce adverse effects on landscape and visual amenity.

Nearly 300ha of landscape mitigation and restoration planting is proposed to help restore the natural character and ecological diversity so that it is consistent with the adjacent reserves and the values attributed to the Outstanding Natural Landscape. This native bush will be registered for carbon credits and maintained for the duration of the activity.

### Conclusion

As the approach and content TDC Rural Subdivision Design Guide has informed both the design process and the outcome of the proposal, it is therefore logical that it meets its intent.



## 9.2 Alternative Development Scenarios

The proposal adopts a site specific design response which is driven from the careful consideration of site constraints and opportunities, with the intention of achieving an increase in natural landscape value while providing opportunity for residential lifestyle activity.

The alternative development scenarios that have been development and used to assess and compare the relative advantages and disadvantages of the current proposal include:

- Scenario 1 Rural Production with sheep and beef farming (current use)
- Scenario 2 Retention of rural production along with the Te Tuhi Lodge and Equestrian Centre
- **Scenario 3 Proposal**
- Scenario 4 Conventional Rural Subdivision (10ha lots) + Te Tuhi Lodge and Equestrian Centre

Other than the current proposed scenario (3) all other scenarios are anticipated/provided for by the Taupo Operative District Plan as either a permitted or discretionary activity.

The development scenarios are assessed against a wide range of outcomes including

- natural landscape
- ecology
- archaeology
- Lake Taupo quality
- Taupo local economy
- Taupo housing sector
- TDC infrastructure
- financial feasibility
- iwi values (subject to consultation)
- carbon footprint
- natural hazards





**Figure 15** Scenario 1 - Status Quo

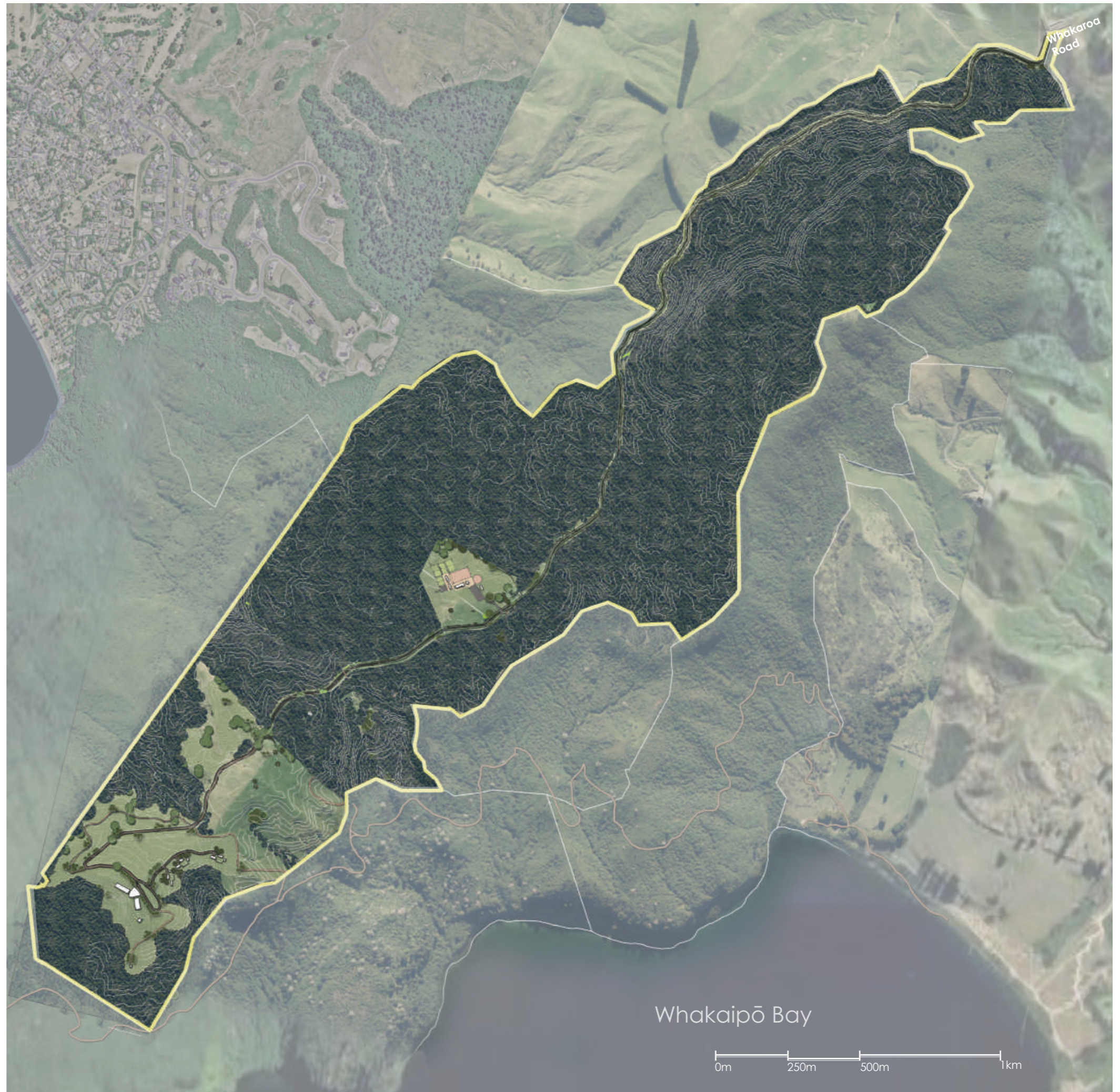
This is essentially the status quo, which is marginal / of limited economic return in the long term, and so there is little or no ability to invest in the property, e.g. in planting, restoration, etc.





**Figure 16** Scenario 2 - Rural Production with Te Tuhi Lodge + Equestrian Centre

Carbon forestry would be likely to be pursued to increase the return from the property. Indicative areas are approximately 250ha for forestry (as illustrated on adjacent map) or farming, with approximately 75ha for the lodge and 25ha for the equestrian centre.





**Figure 17 Scenario 3 - Proposed Development**

A rural cluster subdivision with 112 house sites, equestrian centre, lodge and wellness centre, A significant proportion of site is revegetated with indigenous planting which mitigates the effects of development on visual amenity and delivers a moderate to high positive effects on the existing natural landscape character of the site and its surroundings.





**Figure 18** Scenario 4 - Rural Subdivision of 10ha lots + Te Tuhi Lodge and Equestrian Centre

A rural subdivision with a minimum lots size of 10ha delivering 24 lots, along with the equestrian centre and lodge. Mitigation and amenity planting is associated with the buildings but land is generally retained as grazing or subject to intentions of the individual owners.





Figure 19 Scenario Comparisons

Red text = negative outcome, Green text = positive outcome, black text = neutral outcome

Note: The comparison table below is a summary and relies on relevant individual expert reports. Please refer to those for detail and clarification.

Criteria	Scenario 1	Scenario 2	Scenario 3 (Proposal)	Scenario 4
<b>Taupō District Plan Alignment/Approval Status:</b>	<ul style="list-style-type: none"> <li>Anticipated by the Operative District Plan</li> <li>Permitted activity under Operative District Plan</li> <li>Permitted activity under PC42 General Rural Environment</li> </ul>	<ul style="list-style-type: none"> <li>Generally anticipated by the Operative District Plan</li> <li>Production activity permitted under PC42 General Rural Environment</li> <li>consent required for lodge and equestrian centre</li> </ul>	<ul style="list-style-type: none"> <li>Not anticipated by the Operative District Plan</li> <li>Non-complying activity under Operative District Plan</li> <li>Non-complying activity under PC42 General Rural Environment</li> <li>Provided for as Discretionary activity under Preferred Relief via PC42 amendments to Rural Lifestyle Environment with Te Tuhi Precinct Plan</li> </ul>	<ul style="list-style-type: none"> <li>Anticipated by the Operative District Plan</li> <li>Discretionary activity under Operative District Plan</li> <li>Controlled activity under PC42 General Rural Environment</li> <li>Consent required for lodge and equestrian centre</li> </ul>
<b>Landscape Outcomes</b> <ul style="list-style-type: none"> <li>Visual impact</li> <li>Landform and modification</li> <li>Alignment with OLA values</li> </ul>	<p>Highly visually modified due to loss of original forest cover</p> <p>Low value with respect to values stated by OLA</p>	<p>Pine plantation (permanent rotation) or as nursery crop for native bush</p> <p>Native bush regeneration has a strongly positive effect</p> <p>Pastoral areas – no change</p> <p>Potential negative visual impact of lodge and equestrian centre to be mitigated through TDC design guide and OLA requirements</p>	<p>Potential negative visual impact of dwellings mitigated through bespoke development standards and guidelines</p> <p>Significant benefit of overall level of native bush planting a strongly positive effect on Outstanding Landscape Area</p> <p>Reduction in pasture</p> <p>Increased disturbance of landform through earthworks</p> <p>Effects on dark sky mitigated</p> <p>Potential negative effects of dwellings mitigated by planting</p> <p>Potential negative visual impact of lodge and equestrian centre mitigated through design and planting</p>	<p>Potential negative visual impact of dwellings to be mitigated through TDC design guide</p>
<b>Ecology</b>	<p>Low ecological value due to grazing and eroded riparian corridors/vegetation</p> <p>Severely limited native biodiversity</p>	<p>Pasture - low ecological value due to grazing and eroded riparian corridors/vegetation</p> <p>Pasture - severely limited native biodiversity</p> <p>Forestry - significant issues arising from wilding pines (which are currently a problem on neighbouring land) and potential harvesting effects of slash and sedimentation</p> <p>Native bush – strongly positive</p>	<p>Strongly positive ecological outcomes through revegetation and continuous ecological landscape;</p> <p>Increased native biodiversity both flora and fauna, link to an extend existing DOC forest; protect waterways and improve water quality through riparian planting</p>	<p>Pasture - low ecological value due to grazing and eroded riparian corridors/vegetation</p> <p>Pasture - severely limited native biodiversity</p> <p>Potential planting by future landowners</p>



Red text = positive outcome, Green text = negative outcome, black text = neutral outcome

Criteria	Scenario 1	Scenario 2	Scenario 3 (Proposal)	Scenario 4
<b>Archaeology</b>	No protection of recorded sites	Opportunity for protection and appreciation	Opportunity for protection and appreciation	Opportunity for protection and appreciation
<b>Impact on Lake Taupō</b>	Nitrogen leaching from stock urine Soil erosion/ loss of sediment	Pasture - nitrogen leaching from stock urine Pasture - soil erosion/ loss of sediment Forestry – slash, soil erosion and loss of sediment at harvest Native bush – strongly positive	Significant reduction in nitrogen leaching and sediment loss Less adverse effects on water quality in the lake Longer timeframes for water entering/filtering to lake through improved riparian planting Communal wastewater treatment and disposal system treats wastewater to high standard	Pasture - less nitrogen leaching from stock urine due to lower stock numbers Pasture - soil erosion/ loss of sediment Communal wastewater treatment and disposal system not viable. Individual systems more prone to maintenance issues. Higher likelihood of exotic weeds
<b>Local Housing Sector</b>	No contribution to local housing capacity and choice	No contribution to local housing capacity and choice	Contributes to local housing capacity and choice, particularly for higher end of the market	Minor contribution to local housing capacity and choice
<b>Impact on TDC Infrastructure</b>	Continued allocation of water supply from reticulated network Overall no impact on TDC infrastructure or rate payers	Lodge and equestrian centre water provided by existing water supply plus on-site bore Minor increase in traffic. Minor widening of Whakaroa Rd required. Overall no impact on TDC infrastructure or rate payers	Houses, lodge and equestrian centre water provided by existing water supply plus on-site bore Communal wastewater treatment and disposal system treats wastewater to high standard Minor increase in traffic. Minor widening of Whakaroa Rd required. Overall no impact on TDC infrastructure or rate payers	Lodge and equestrian centre water provided by existing water supply or on-site bore Minor increase in traffic. Minor widening of Whakaroa Rd required. Overall no impact on TDC infrastructure or rate payers
<b>Financial Feasibility</b> <ul style="list-style-type: none"><li>■ Return on investment</li><li>■ Infrastructure efficiency/ affordability</li><li>■ Financial performance of lodge and equestrian facility separate from residential development and assumed viable in their own right</li></ul>	No setup cost Existing farm is an economic unit but has modest return	Pasture/stock – More challenging ongoing viability at smaller scale than existing Forestry - pine forest viable especially at first rotation due to carbon credits Potential adverse effects at harvesting on Lake Taupo and issues with wilding pines Native bush (including manuka honey option) not financially viable	Viability of lodge and equestrian centre strengthened by local customers Revenue from rural residential allotment sales supports/funds extensive revegetation of the site Lower Infrastructure costs per allotment	Loss of rural production OPEX and CAPEX costs relatively high per unit, including for infrastructure such as internal roading Viability of lodge and equestrian centre strengthened by local customers – to lesser extent Effective pest and weed management can be difficult



Criteria	Scenario 1	Scenario 2	Scenario 3	Scenario 4
<b>Iwi Values</b> (assumed, subject to consultation)	No iwi benefits - involvement/ harvesting/ access etc.	Some employment opportunity e.g. lodge services, planting team (forestry or re-vegetation of native bush), pest and weed management and plant nursery  Access opportunity for general public as lodge customers  Lodge detailed design references local cultural history and values	Significant opportunity in restoration of native bush  Some employment opportunity e.g. lodge services, planting team (forestry or re-vegetation of native bush), pest and weed management and plant nursery  Access opportunity for general public as lodge customers  Lodge detailed design references local cultural history and values	Some employment opportunity e.g. lodge services,  Access opportunity for general public as lodge customers  Lodge detailed design references local cultural history and values
<b>Carbon</b> ■ Carbon negative = climate positive	No change – continued carbon positive	Exotic forest plantations or native bush in perpetuity strongly carbon negative  Pastoral use – no change  Buildings and infrastructure could adopt PAS20801 to minimize carbon otherwise carbon positive	Native bush in perpetuity strongly carbon negative  Buildings and infrastructure could adopt PAS2080 to minimize carbon otherwise carbon positive	Pastoral use – no change  Buildings and infrastructure could adopt PAS20801 to minimize carbon otherwise carbon positive  Potential planting by future landowners- minor effect
<b>Natural Hazards</b>	No change – low risk	Earthquake faultlines and flood areas avoided – low risk	Earthquake faultlines and flood areas avoided – low risk	Earthquake faultlines and flood areas avoided – low risk



# 10 Conclusion

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The proposal is the product of a careful and considered multi-disciplinary design approach. It represents a rural residential environment that has been designed in response to a wide range of design drivers, specifically the unique characteristics and capacity of the site itself, its location and the aim to advance a viable and sustainable long term use for the site which delivers a “win – win” outcome for the site, its landscape values and Taupo generally.

The proposal has the following benefits:

- a significant increase in ecological value through new areas of native bush
- increased native biodiversity for both flora and fauna
- an extended existing DOC forest
- protect waterways and improvement in water quality through riparian planting
- a reduction in pasture and corresponding reduction in nitrogen leaching and soil erosion
- opportunity for the protection of archaeological sites
- opportunity for local economy benefits through construction and planting
- opportunity for employment, both during implementation/construction as well as in the long term (lodge and ongoing land management)
- support for Taupo as a tourist destination
- addition to housing capacity and choice in the Taupo district
- a sustainable and more productive long term use for the site through carbon farming
- opportunities for the local and wider community for recreation (lodge and equestrian centre)
- opportunities for mana whenua benefit through native bush restoration, access to land, employment and through cultural design reference for lodge and equestrian facility at detailed design stage

and in particular,

"The net outcome will be a positive effect on visual amenity values associated with the Outstanding Landscape Area" (Landscape, Natural Character and Visual Assessment Report, Mansergh Graham).

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