

**SUPPLEMENTARY PAPER FOR INCLUSION IN SECTION 42A**

**PLAN CHANGE 22 OF THE HOROWHENUA DISTRICT PLAN**



**Taumanuka studio**

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## IDENTIFICATION OF HIGH AMENITY LANDSCAPES

### INTRODUCTION

This report has been prepared by Nicola Treadwell of Taumanuka Studio Ltd, (previously Treadwell Associates Ltd) for Horowhenua District Council to supplement the s42A Planning Report for the hearing of submissions on Plan Change 22 of the District Plan.

This report references the work already undertaken in the identification of landscape domains in the Landscape Assessment of the Rural Environment of the Horowhenua District, 2008 and the Assessment of Outstanding Natural Features and Landscapes, 2009 and Outstanding Natural Landscapes & Features Review, 2011.

The focus of this report is on those landscapes that do not rate as 'outstanding' in terms of the Resource Management Act but that still maintain a level of amenity value that sets them above other landscapes in the district. Some, but not all of these landscapes with a higher level of amenity value contain Outstanding Landscapes and/or Natural Features, which contribute to, but are not the sole reason for their being identified as having a higher amenity level than others.

The areas identified as being landscape domains in the 2008 assessment are:

- Coastal Environment
- Foxton Dunefields
- Coastal Lakes
- Moutoa-Opiki Plains
- Levin-Koputaroa
- Levin-Ohau
- Kuku
- Manakau Downlands
- Tararua Terraces
- Hill Country

Through the previous assessments, four landscape domains have been identified as potentially having higher amenity values than the remaining six domains. These are:

- Coastal Environment
- Coastal Lakes
- Hill Country
- Manakau Downlands

Through comparison with the remaining domains, this report identifies the aspects of the domains listed above that lead to their being assessed as having high amenity and aid Council in providing guidance for district plan provisions surrounding building development and location to address the sensitivity of these environments.

As defined in the Landscape Assessment of the Rural Environment, landscape sensitivity is a combination of visual quality and landscape vulnerability, and involves assessing the domain's ability to absorb change. This is especially important where the domain includes outstanding natural features and/or landscape (ONFLs) which also are vulnerable to adverse effects from built form or modification.

Other issues to be considered when providing guidance on the design and location of built form are the topography, presence of vegetation and visibility, particularly in the case of view shafts being present.

## PURPOSE

The purpose of this report is to assist the Commissioners in making their decision on the submissions. This report could also assist users of the Plan Change 22 to understand what issues to consider and address when proposing built form within the domains with a higher level of amenity value. It does so by providing information on what contributes to that higher level of amenity, and why one domain may have a higher level of amenity value than another, thus providing guidance on what is, or is not suitable building design and location in a specific domain.

Further guidance is provided in terms of specific design factors, such as building location, the height and bulk of the building, roof lines, colour, materials and reflectivity.

## METHODOLOGY

### Process

- Response to matters raised in submissions on Plan Change 22;
- Reference to previous relevant documents including *Outstanding Natural Landscapes and Features Review 2011*, *Landscape Assessment of the Rural Environment of the Horowhenua District 2008* and *Assessment of the Outstanding Landscapes and Natural Features of the Horowhenua District 2009*;

### Defining Amenity Values

Section 2 (i) of the Resource Management Act (“the Act”) defines amenity values as “those natural physical qualities and characteristics of an area that contribute to people’s appreciation of its pleasantness, aesthetic coherence and cultural and recreational attributes”. The Act uses the term ‘amenity value’ as part of the definition of ‘environment’, and in doing so, recognises that an environment is not simply valued for its physical features and processes but also the characteristic and qualities that add to the sense of ‘place’ that people value. The latter are harder to quantify so any assessment of these will be somewhat subjective, however the requirement of the Act to ‘maintain’ those qualities and characteristics that are valued is clear.

Section 7(c) of the Act requires that ‘particular regard’ must be paid to “the maintenance and enhancement of amenity values” of a landscape and in order to do so, an assessment that identifies the presence or level of these values is required. These values can be assessed using the following criteria to identify the level of amenity for each domain and further, why the level of these values may differ between domains:

- Visual Quality
- Landscape Vulnerability
- Topography
- Vegetation
- Visibility

### Visual Quality

Visual quality stems from the natural science factors (the geological, topographical, ecological and dynamic components of a landscape) and the aesthetic values including rarity, naturalness, expressiveness and legibility. It also includes those characteristics that people appreciate and understand as being an important characteristic of a landscape – whether it is natural or modified. This could include patterning created through settlement or perhaps through productive activities, or a sense of scale, openness or enclosure created through the topography but emphasised further through the existing vegetation, buildings or street patterns. A Very High rating would reflect that all or a combination of the natural science factors and aesthetic values are present, while a Low rating would reflect that very few of those values are present.

### Landscape Vulnerability

How vulnerable a landscape is to change is determined through the domain's ability to absorb the effects of that change, whether it is the insertion of built form and/or the modification of landform. A vulnerable landscape may also include strong cultural characteristics or factors that need protection from disturbance or require enhancement to prevent that character being overwhelmed or lost through development. Therefore, a rating of Very High would reflect the landscape's vulnerability to change or modification, and that the level of change resulting from a proposed activity needs to be carefully assessed to protect the landscape.

Factors that contribute to vulnerability are the presence of outstanding or important landscape features and a combination of the other criteria listed here. Factors that need to be considered to avoid adverse effects include the location of buildings and/or the modification of landform associated with built form e.g the creation of building platforms, accessways, and boundary treatments.

### Topography

The topography of a domain may be a distinguishing feature which contributes to the landscape of that domain's ability to absorb change. For instance, a terrace in the Tararua Terraces domain may have a level of prominence which would mean the location and design of a building proposed on the terrace would require particular consideration so as to avoid adverse effects on that feature. Landforms are often particularly important in terms of cultural or heritage values, and can form part of a community's sense of identity. The amount of modification is the main factor affecting the rating in this category, with a rating of Very High reflecting very little modification and a rating of Low reflecting a highly modified topography.

### Vegetation

Generally, a Very High rating reflects a dominance of original, indigenous vegetation, whereas a rating of Low reflects a highly modified landscape dominated by pastoral grasses, exotic weeds and exotic trees not used for production or having no historic or cultural value. However, a productive landscape (e.g. a pine forestry block) is considered to have a higher rating than an area of wilding or untended pines, because of values other than the natural science values.

### Visibility

How visible a landscape with high amenity is, often is part of its intrinsic value; it maybe iconic, have historic or cultural values that are still relevant to the community and play a role in people's sense of identity. A Very High rating would be given to a landscape that is easily visible and has some or all of the criteria valued by a community or by visitors. In this case, a proposed building site or structure located within a high amenity domain and visible from public roads, reserves etc could present as an inappropriate or ill-considered design should it dominate or otherwise adversely affect the particular landscape domain.

### Assessment Matrices

An assessment matrix has been prepared which rates each domain using the criteria outlined above. In quantifying the level of the values the following system of grading is used:

VISUAL QUALITY	VULNERABILITY	TOPOGRAPHY	VEGETATION	VISIBILITY
Very high				
High				
Moderate - high				
Moderate				
Moderate - low				
Low				

## DOMAIN ASSESSMENTS

### COASTAL ENVIRONMENT

#### Visual Quality

The coastal environment of the Horowhenua presents a high rating of visual quality due to its variety, scale and rarity of the coastal features it includes. Despite modification through primary production and the presence of settlement the domain's dunal systems, estuarine environments and wetlands combine to provide an environment that includes significant natural science factors and aesthetic values.

#### Landscape Vulnerability

The high level of natural science and aesthetic values are the main factors contributing to this domain's vulnerability. Of these, the rare topographical nature of the unique dune systems and the sensitive nature of the coastal and estuarine features result in high levels of naturalness as a result of ecological and geomorphological factors, and these are recognised as resulting in being expressive and legible to both residents and visitors. The possible presence of wahi tapu sites also add to the level of vulnerability.

#### Topography

The Coastal Environment contains the largest range of topography and includes the very high inland dunes, the low areas of inter-dunal wetlands and the important estuarine areas. This combination contributes to the high levels of natural character and aesthetic values while also resulting in high sensitivity to the imposition of built form and/or resulting modification to the topography. Disturbance through earthworks can also risk the destruction or damage of kōiwi and other taonga.

#### Vegetation

The Coastal Environment also contains a range of vegetation types and areas – both exotic and indigenous. The exotic vegetation is largely as a result of primary production, including farming and forestry species such as pastoral grasslands and pine trees. The areas of indigenous vegetation tend to be remnant areas, and are very important areas due either to their rarity, their expression of naturalness or their high levels of ecological value. While some areas of exotic vegetation, primarily forestry, can lessen the domain's sensitivity, those areas of indigenous vegetation require protection from any adverse visual and physical effects from the imposition of built form.

### Visibility

The topography and accessibility of areas within this domain result in a range of levels of visibility, but features such as the dunes, the expansive beaches and dense areas of vegetation are important visible features even if they may not be viewed from outside the domain. The imposition of built form in the domain and any proposed structures must be considered in terms of location and appropriate design that is complementary to the topography in which it is intended to be placed.

### COASTAL ENVIRONMENT: SUMMARY ANALYSIS

VISUAL QUALITY	VULNERABILITY	TOPOGRAPHY	VEGETATION	VISIBILITY
Very High	High	High	Moderate - High	High

## FOXTON DUNEFIELDS

### Visual Quality

As the name attests, this domain is heavily characterised by its dissected parabolic dunefield landscape which extends inland some 20km, perpendicular to the coastal edge. These dunes are the oldest in the region and the pine forest and pasture cover that replaces the original dune species tends to emphasise the undulations that characterise the area. However, the somewhat homogenous texture also disguises the complex nature of the dunal system, which would have appeared far more varied and indicative of the processes that occur within the system. The height of the exotic forestry also tends to block or break up views of the extent of the dunefield, but the view shafts created by the low points in the undulating form are emphasised by this factor.

### Landscape Vulnerability

The very distinctive landform is very vulnerable to modification by earthworks; it is very obvious where the top part of the high dunes have been levelled for house platforms or irrigation systems. Similarly, the view shafts that have been created would also be easily degraded if built structures were not limited to the low areas or to the tops of the dunes. Further, the dunefields contain sites of importance to tangata whenua and may contain taonga or kōiwi.

### Topography

As discussed above, this domain has a very particular topography and is unique to the region, if not wider. Without stabilisation from forestry, wind would also have continued to shape the dunes to a small extent although the age of the dunes has affected their stability also and movement would have been less and slower than with the newer dune fields. In the present, the topography has influenced the location of forestry and of pasture, and also affects the location of houses and other buildings. Damage continues to be done to the landform through the levelling of the high points of the dunes to facilitate spray irrigation systems.

### Vegetation

Very little of the original indigenous vegetation remains in this domain. This would have comprised dunal grasses and shrubs, with wetland species such as reeds in the inter-dunal hollows. There would have been some variation in the extent and position of the species as the hydrological processes affected the heights of water tables and the extent of inundation. Today, however, the strong mono-cultural patterning and texture of the forestry and pasture tends to emphasise the characteristic dune forms and needs to be considered in terms of aesthetic value also.

### Visibility

As noted above, the homogenous texture provided through forestry and pasture, tend to emphasise the distinct form of the dunes which, despite some modification through earthworks, is still clearly visible. These features are particularly noticeable from the roads parallel to and immediately inland from SH1.

### FOXTON DUNEFIELDS: SUMMARY ANALYSIS

VISUAL QUALITY	VULNERABILITY	TOPOGRAPHY	VEGETATION	VISIBILITY
Moderate	High	High	Moderate	Moderate - High

## COASTAL LAKES

### Visual Quality

The very diverse nature of the Coastal Lakes contributes to a high level of natural value, despite the area being densely settled in parts. The lakes and the associated streams, of which there are several of varying sizes and significance, clearly provide visual quality, despite in some cases being ecologically degraded. Similarly, the dune fields in which the lakes sit are of the parabolic type and therefore, despite some modifications to their form, are extensive, unusual and distinctive.

Little visual modification has occurred to the lakes, apart from clearance of the original margins of indigenous vegetation in most cases and, in the case of Waipunahau-Lake Horowhenua, modification to the lake's level. As large water bodies, the lakes contribute high levels of aesthetic value and in the case of Waiwiri-Lake Papaitonga particularly, high levels of naturalness. This is also the case with the numerous wetlands and dunal features (such as Moutere Hill) within the domain.

### Landscape Vulnerability

With their high level of visual quality, the lakes, both as individual features and in their contribution to the character of the Coastal Lakes domain, a corresponding level of vulnerability is present. The natural science factors have been affected by the use of the lakes, with the exception of Waiwiri-Lake Papaitonga, which maintains very high levels of natural science factors. The significant contributing factor to the sensitivity of the lakes, in terms of visibility, is how the margins have been treated and the extent to which settlement or the presence of built form is part of that. Enhancement of some areas of Waipunahau is testament to the importance of these landscapes for iwi and their strong cultural connections to an important sacred site.

In the wider view, the distinctive form of the inland dune system is easily affected through excavation and 'flattening', and given the high level of visibility from surrounding areas, the result of such actions is very noticeable.

### Topography

The majority of the Coastal Lakes domain is parabolic dunefield formation, extending over 10km inland from the coast. The lakes are dune lakes – formed in the hollows between the dunes, and the associated streams and contiguous wetland systems are extensive. There has been considerable modification to the hydrology, resulting in deep channelled drains; however the presence of high water tables allows many wetland areas to continue functioning and these require protection and further enhancement.

### Vegetation

With the exception of the margin of Waiwiri-Lake Papaitonga, little of the original indigenous vegetation of the area remains. The dunes have been stabilised by the planting of pine trees or have been sown in pasture grasses. Many of the wet inter-dunal hollows have been drained and also utilised for pastoral grazing. As mentioned above, Moutere Hill also has been stripped of any dune vegetation that may have been present and planted in pastoral grasses.

### Visibility

With its distinctive height and shape Moutere Hill is visible from almost all the district. The other dunes, while not as high or extensive as those of the Foxton area, are also an integral part of the visual landscape of this domain. At their lower level, the lakes are slightly less visible, although the size, extent and the reflective nature of the waters results in their being of high visibility, particularly from the more elevated areas of the district. The scenic reserve that surrounds Waiwiri-Lake Papitonga is also of an extent and density that is easily identified, particularly in its contrast to the surrounding areas of settlement or pasture. To a lesser extent, the parkland area surrounding Waipunahau-Lake Horowhenua distinguishes it from the surrounding settlement area.

### COASTAL LAKES: SUMMARY ANALYSIS

VISUAL QUALITY	VULNERABILITY	TOPOGRAPHY	VEGETATION	VISIBILITY
High - Very High	Moderate - High	Moderate	Moderate - High	High

## MOUTOA-OPIKI PLAINS

### Visual Quality

This domain is characterised by a high level of modification that has resulted in the 'patchwork' patterning that is a recognisable factor in rural character. Despite the imposition of fencelines and the geometry of crop fields and angular drainage patterns, the underlying hydrological processes can still be discerned, particularly in the presence of the old ox bows and meandering streams that cut into this flat landscape, but this is the limit of any perception of 'naturalness' in this domain. Instead, it is a strong sense of expansiveness and openness that characterise this domain, broken only by the river courses.

### Landscape Vulnerability

Given the natural character of this domain is reduced, it is the expansiveness and openness and strong rural character that remains vulnerable to change rather than the landform. Vertical elements exist in the form of shelterbelts and in isolated trees, and while shelterbelts could provide a certain amount visual absorption capability, this would be limited and ineffective if large or excessively high buildings were located here (apart from barn-like structures or other built form of a clearly rural nature).

### Topography

This domain is comprised of extensive open plains with some remnant wetland areas in river locations. Drainage has meant that many of the natural water courses have become redundant, although traces of the hollows formed by ox-bows and swamps can be seen. Some naturally formed water courses exist; their organic form contrasting clearly with the very geometric patterning from boundaries and fences in a landscape which is visually emphasised by the overall flatness.

### Vegetation

Extensive deforestation and replacement with pasture and horticultural crops means very little of the original indigenous vegetation remains. There are some small, isolated pockets of wetland and riparian vegetation and some exotic plantings along the margins of the rivers and streams.

### Visibility

A lack of elevated or vertical features reduces the presence of any distinctive landmarks when viewed from outside the domain boundaries; however the openness and extent of the plains can be seen from more elevated areas outside or alongside this domain.

MOUTOA-OPIKI PLAINS: SUMMARY ANALYSIS

VISUAL QUALITY	VULNERABILITY	TOPOGRAPHY	VEGETATION	VISIBILITY
Moderate - Low	Moderate - Low	Moderate	Moderate - Low	Moderate - Low

## LEVIN-KOPUTAROA

### Visual Quality

A strong sense of rural amenity is the contributing factor to the visual quality of this domain. Added to this is the varied nature of the domain, which expresses its location in the middle of the catchment where the geomorphological processes are condensed and complex.

### Landscape Vulnerability

As a result of its varied nature, some parts of this domain are more sensitive to change than others. Some areas have a higher degree of naturalness, which requires protection from careless imposition of built form, while others have a greater sense of having being modified and therefore could be less sensitive to buildings and structures being imposed.

### Topography

As noted, its mid-catchment location results in topography that reflects the many geomorphological processes at work. It is a product of flood processes and loess and includes fertile alluvial plains, low lying peat swamps, elevated areas and deeply incised gullies. The strong hydrological forces can result in flooding, which in turn has caused topographical modification in the form of stop banks and floodways.

### Vegetation

Primary production has resulted in deforestation and drainage; as a result what indigenous vegetation remaining as remnant areas, with some wetlands still functioning. Pastoral grasses, horticultural crops and exotic shelterbelts are the dominant vegetation types.

### Visibility

As with the Tararua Terraces, some parts of the domain are more visible than others, while others remain hidden when being viewed from outside the domain. The domain's elevated areas are the most obvious, but the terracing and deep gullies are also strongly noticeable from adjoining domains.

LEVIN-KOPUTAROA: SUMMARY ANALYSIS

VISUAL QUALITY	VULNERABILITY	TOPOGRAPHY	VEGETATION	VISIBILITY
Moderate - Low	Moderate - Low	Moderate	Moderate	Moderate - Low

## LEVIN-ŌHAU

### Visual Quality

Rural amenity is the most obvious factor in determining visual quality and a high level of modification results in other factors being absent or diminished. The existence of reserves contributes small and isolated areas of naturalness, but these are not significant in the wider sense. Any sense of naturalness is largely due to the presence of waterways although these are somewhat degraded and modified.

### Landscape Vulnerability

Apart from the waterways, the one factor contributing to vulnerability would be the rural character and the impacts of built form within the areas that express this most clearly. The part of the domain nearest the township of Levin is relatively densely settled, so further insertion of built form in this area would not create adverse effects visually.

### Topography

As with the other mid-catchment domains, terracing is the dominant land form feature of this domain. Similarly, the wide expanse of river-plain is also a feature in this environment.

### Vegetation

Almost complete deforestation has occurred in this domain, replaced with pasture, crops, exotic shelter belts and some areas of pine forest. The fertile volcanic soils have led to horticultural activities at a range of scales. Some remnant areas of indigenous vegetation remain, usually near the river. Kimberley Reserve is the largest and most significant of these.

### Visibility

The elevated areas of the terraces are the most visible, and, as mentioned above, the expanse of the river plain also provides wide views from some angles. Dense settlement near Levin precludes any visibility of the landscape itself in this part.

LEVIN-ŌHAU: SUMMARY ANALYSIS

VISUAL QUALITY	VULNERABILITY	TOPOGRAPHY	VEGETATION	VISIBILITY
Moderate - Low	Moderate - Low	Moderate	Moderate - Low	Moderate - Low

## KUKU

### Visual Quality

Although not dissimilar from the previous two domains discussed, Kuku has a higher level of visual quality due to the lack of dense settlement, the presence of high quality wetlands and bush stands and an increased sense of rural amenity.

### Landscape Vulnerability

The higher level of visual quality results in this domain being more sensitive to change and insensitively designed built form.

### Topography

In this central domain, it is the plains that are the dominant element, followed by the terraces created by the movement of the Ohau River, and the Waikawa and Manakau Streams. Flooding often occurs on the plains, exacerbated by the high water tables.

### Vegetation

Pastoral farming and horticultural activities have resulted in the dominant vegetation being grass and crops. As previously mentioned, the presence of functioning wetlands adds to the variation of vegetation, as do the few isolated remnant areas of indigenous bush.

### Visibility

The extensive plains area and the elevated terraces increase the visibility of this domain and the insertion of structures will be noticeable.

## KUKU: SUMMARY ANALYSIS

VISUAL QUALITY	VULNERABILITY	TOPOGRAPHY	VEGETATION	VISIBILITY
Moderate	Moderate	Moderate	Moderate – Low	Moderate

## MANAKAU DOWNLANDS

### Visual Quality

Both natural and cultural factors are the cause of a high level of rural amenity in the Manakau Downlands domain. The domain has a particular visual quality as a result of its sheltered and enclosed environment but also from planning decisions made at the time of initial settlement. The township is of a small scale, with the older parts having narrow streets, with no footpaths and houses tucked into the folds of the foothills it inhabits.

A 'mini-climate' results from the orientation of the sheltering hills that curve in from the foothills of the Tararua Range at the narrowest part of the catchment; the vegetation is correspondingly lush and distinctive as a result of the shelter from the predominant winds and quite humid conditions.

While the township itself has a quite densely settled appearance, although the houses are screened by established vegetation and through the effect of the undulating topography. Latterly, houses have been built to the west against the backdrop of the foothills. These are less densely clustered and have a somewhat submissive relationship to the elevated areas directly behind. These properties tend to have larger lot sizes so there is a generous amount of green space between them, which adds to the dominance of rural character.

### Landscape Vulnerability

The high level of rural character and resulting aesthetic values means that a different approach to settlement could adversely affect that character. So far, development has remained in keeping with the amenity values of the domain but this has a heavy reliance on house design and location.

### Topography

As mentioned above, the topography of the Manakau Downlands domain is unique in the district, expressing the particular geomorphological factors that result from its proximity to the ranges and the shelter it receives from the prevailing winds. The landform is a mix of types with discrete areas of more varied topography on its eastern side and the topography of the domain has clearly influenced settlement patterns .

### Vegetation

The particular climatic conditions of this domain have resulted in relatively lush vegetation and a fast rate of growth. Some remnant areas of bush and wetland remain and there are large areas of regenerating indigenous bush on the foothills. The remainder of the domain is characterised by its pastoral and forestry vegetation, particularly on the western parts.

### Visibility

Part of the unique character of this domain is its seclusion from the rest of the district and from SH1. Its enclosed nature prevents any expansive views and at no time can the full extent of the domain be viewed. However, once within the domain it becomes apparent that the traditional models of settlement, influenced by both the topography and early planning, have endured.

### MANAKAU DOWNLANDS: SUMMARY ANALYSIS

VISUAL QUALITY	VULNERABILITY	TOPOGRAPHY	VEGETATION	VISIBILITY
High	High	Moderate - High	Moderate - High	Moderate

## TARARUA TERRACES

### Visual Quality

This domain is characterised by its varied landscape created in the most part by hydrological action. This variation results in a level of visual quality and the perception of a dynamic environment, contributed largely by the distinctive terrace formations, deep waterways and pockets of lush vegetation. Pastoral farming is at a lower density than other domains and the higher presence of horticultural activities that reflect the versatile soils adds to the perception of a varied landscape through the contrasting textures of crops against pasture.

### Landscape Vulnerability

It is this varied nature that also results in a level of vulnerability. Because there are distinctively different areas in the broader environment, any development or insertion of built form needs to complement the particular areas in which it is located to avoid adversely affecting the character of this domain.

### Topography

As discussed above, it is the varied topography that characterises this domain. It is intensely varied and in a sense, still quite mobile, with the hydrological forces still very obvious and resulting in changes to the shape and course of waterways over time.

### Vegetation

The varied topography results in a range of primary productive uses within the domain and the vegetation 'texture' is therefore distinct and varied. The dynamic hydrological system also results in a number of areas of both forest and wetland indigenous vegetation. The sheltered 'pocket' areas contain vigorous species, whose growth is advanced by the presence of volcanic soils.

### Visibility

The terraces are clearly visible within and alongside this domain – the river gullies are steep and deep, often affording no view of the waterway itself because of this. The contiguous backdrop of the Tararua Range tends to throw the terraced area in to high relief, with its varied texture and land form.

TARARUA TERRACES: SUMMARY ANALYSIS

VISUAL QUALITY	VULNERABILITY	TOPOGRAPHY	VEGETATION	VISIBILITY
Moderate	Moderate - Low	Moderate - High	Moderate	Moderate

## HILL COUNTRY

### Visual Quality

The iconic nature of this extensive domain is largely to do with its very high level of visibility and the elevation of the Tararua Range contributes to its striking nature. This domain extends the full length of the western boundary of the district and largely un-modified, it contains all the factors that contribute to a high level of visual quality. The high level of naturalness has contributed to this landscape having high recreational values

### Landscape Vulnerability

The contiguous line of the ranges with little variation in appearance as a whole results in this domain being very vulnerable to modification or the imposition of structures or built form within it. The high natural science factors and aesthetic values are a direct result of the extent, height and unmodified appearance and as such, a high level of protection is required to ensure these values are sustained.

### Topography

The highest peaks of the Tararua Range are 1570 metres above sea level (msl), and the terrain becomes noticeably steeper above the 100msl contour line. The range consists of parallel ranges interspersed with deep river valleys and covers approximately 3,168 square kilometres and is of a length of approximately 100km. The Hill Country domain includes the most distinctive and extensive contiguous topography in the district.

### Vegetation

The steep terrain is totally covered in the original indigenous vegetation, including conifers, tussock grasses, ferns, shrubs and vines. The density and type is indicative of the high rainfall the western side of the ranges receives.

Some areas of the lower levels and foothills have a cover of regenerating bush after clearance for farming, which includes mānuka, kamahi and bracken. Below these areas deforestation has continued and pastoral grasses and isolated trees are present.

### Visibility

As noted, the elevated areas of the Hill Country domain are visible from the entire district. Any modification or change would be highly noticeable with adverse visual effects arising, while the lower areas would be a little less sensitive.

HILL COUNTRY: SUMMARY ANALYSIS

VISUAL QUALITY	VULNERABILITY	TOPOGRAPHY	VEGETATION	VISIBILITY
Very High	Very High	Very High	High	Very High

## AMENITY STATUS

Through the previous analysis, it is possible to assess the amenity status of each domain. To ensure this analysis is effective and the results able to be utilised in providing guidance within the district plan for future building design and location, a comparative matrix has been provided.

### COMPARATIVE DOMAIN MATRIX

DOMAIN	VISUAL QUALITY	VULNERABILITY	TOPOGRAPHY	VEGETATION	VISIBILITY	AMENITY STATUS
Coastal Environment	Very High	High	High	Moderate - High	Moderate-High	High
Foxton Dunefields	Moderate	High	High	Moderate	Moderate	Moderate
Coastal Lakes	High - Very High	Moderate - High	Moderate	Moderate - High	High	High
Moutoa-Opiki Plains	Moderate - Low	Moderate - Low	Moderate	Moderate - Low	Moderate - Low	Moderate - Low
Tararua Terraces	Moderate	Moderate - Low	Moderate - High	Moderate	Moderate	Moderate
Levin-Koputaroa	Moderate - Low	Moderate - Low	Moderate	Moderate	Moderate - Low	Moderate - Low
Levin-Ohau	Moderate - Low	Moderate - Low	Moderate	Moderate - Low	Moderate - Low	Moderate - Low
Kuku	Moderate	Moderate	Moderate	Moderate - Low	Moderate	Moderate
Manakau Downlands	High	High	Moderate - High	Moderate- High	Moderate	High
Hill Country	Very High	Very High	Very High	High	Very High	Very High

The following landscape domains are therefore considered to have High Amenity status:

- Coastal Environment
- Coastal Lakes
- Hill Country
- Manakau Downlands

This matrix justifies the amenity status given to each domain – it helps identify what issues are important to consider, in terms of earthworks, deforestation or removal of vegetation and the imposition of built form and other structures, in a specific domain, and which domains are more or less sensitive to these activities, and why.

These sensitivities to particular activities, and the reasons for them, are discussed below.

## **EARTHWORKS**

Earthworks can result in adverse effects in all domains but some are more vulnerable to landform modification. Those domains having a higher level of visibility as well as visual quality will be less able to absorb these effects, or it may be difficult to mitigate them to an acceptable level. However, landscape integrity is also an important factor, and this requires consideration of other values than just the visual effects. Whether or not the earthworks are temporary or permanent and how temporal effects are mitigated can also affect the impact of earthworks on specific domains, particularly those where commercial forestry has not been a recognised feature of that landscape.

As with any modification of landform, vegetation or physical activity that will likely result in adverse visual effects, or damage landscape integrity, the proposed activity will need to be designed and located with the particular characteristics and vulnerabilities of the domain in which it is proposed to be located.

### Coastal Environment and Coastal Lakes Domains

These two domains have high levels of vulnerability to earthworks, due to the dune formations contained within them. Additionally, the individual lakes and margins within the Coastal Lakes are also vulnerable to adverse effects from earthworks. Both domains would suffer from visual effects of uncontrolled or excessive earthworks or landform modification and there is also a high risk of disturbance of the many wahi tapu sites identified along the coast and surrounding the lakes.

For less sensitive areas within these domains, screening may assist in reducing the effects as the visibility from outside areas of most parts of these domains is reduced. This would suggest, however, that there be specific controls around the length and width of any earthworks, but also on the length of time the earthworks will exist unmitigated by planting or vegetative cover.

The length of time earthwork activities are proposed for, and, in particular the length of time that will occur before re-planting is established need to be considered particularly in view of the extensive, working pine forest areas contained within both these domains.

### Manakau Downlands and Hill Country

The visibility factor of the Manakau Downlands is more internally focussed while the Hill Country's vulnerability is very high due the extent of it's visibility throughout the district. However, the Manakau Downlands' vulnerability is more a result of scale, as well as the distinct topographical features that would have earthworks take on a dominance not necessarily found in other domains.

As with any of the domains identified as having high amenity status, earthworks and landform modification requires consideration of the size and extent of the proposed activity and again, how long the activity is proposed for. Both these domains contain areas of exotic forestry so earthworks associated with these activities should be carefully considered as to the level of visual effects and the amount of time the excavated area(s) will remain unmitigated.

## **VEGETATION REMOVAL**

The issues associated with vegetation removal are similar to those faced with proposed earthworks in that it is the visual effects that will be the most obvious. The two activities, (earthworks and vegetation removal) often go hand-in-hand, and the level of effects of both factors on a particular domain can therefore be considered together when assessing a proposed activity.

In such cases, a replanting regime or plan should take into consideration the amount of time the adverse effects of vegetation removal will remain and how quickly and efficiently re-planting should occur.

However, in some cases, vegetation removal is proposed not in association with earthworks, in which case other effects also need consideration, such as the effects on biodiversity and the effects on the ecological well-being of the wider landscape, including erosion. While this is usually more of an issue with the removal of indigenous vegetation, large-scale felling of exotic plantations can also trigger the same concerns and requires equally careful planning.

The species selected for re-planting should be done so with regard to the relationship of the plants and the landform. While some exotic species may have the attributes of faster establishment, or may be perceived to be hardier than the original, indigenous species, the visual as well as the ecological outcome will be less appropriate.

## **BUILT FORM LOCATION AND DESIGN GUIDELINES**

While all the factors within the previous analysis have helped to determine the level of amenity status in each domain, the higher ratings given to some indicate that some factors are more important than others in determining how best to avoid adverse effects from the insertion of built form in specific domains. Built form may include houses, commercial and farm buildings and vertical structures.

Vulnerability, topography and visibility are considered to provide guidance on the particular aspects of building design and location in specific domains, and while there may be constraints on the design of some types of structures related to their purpose, it is therefore even more important to consider their suitability in a particular domain.

How the building is orientated on the site is important for solar access and providing adequate outdoor living areas, as well as optimising views while considering the visibility level of the building from public viewpoints. The latter is also very important in regard to farm or commercial buildings or structures.

Factors to consider when planning the construction and location of a building in high amenity domains include:

- Building or structure site location, including:
  - Existing scale and density
  - Backdrop of the site
  - Sites to exclude
  - Orientation
- General design factors as follows:
  - Height of building or structure
  - Bulk of building or structure
  - Landscape treatment to mitigate effects
- Specific design guidelines:
  - Colour
  - Roof line/profile
  - Materials
  - Reflectivity

### **Site Location**

#### **1. Existing scale and density**

When considering the design of a new building or structure, the existing properties and buildings can be used as a guide for what may be appropriate for the particular landscape domain. It is usually possible to tell where a building looks 'out of place' because it dominates the site spatially, or has required an excessive amount of vegetation removal. The same can be seen with driveways and other accessways, where vehicle access has been provided at the expense of outdoor space or garden. In the case of a farm or industrial building or structure location, how appropriate these will be in a particular domain or part of a domain will usually depend on whether any

similar constructions are within view, and whether the existence of these reduces or increases the effect of an additional like structure being located in the same area.

Usually older properties in the domain have set the character of the domain – this does not mean that the architectural style of a proposed house needs to be of that earlier era, but to complement the existing landscape character, new buildings should respond to the scale of the existing houses, the relationship between them and the street frontage and the amount of living space around them.

Where farm or commercial buildings or structures are proposed, consider whether this is an appropriate feature and/or sized structure in the particular landscape. In some cases, total screening or a different location may reduce the effects, particularly if the building or structure is necessarily large or will be overly dominate in the landscape.

The backdrop of a site also can be affected by the location of buildings or structures, and where this backdrop is a landscape considered to be of high visual quality or is an ONLF the effects could be adverse.

## 2. Sites to exclude

Each domain has particular elements about its geology, vegetation or other landscape features that set it apart from its neighbouring domains. For instance, the Coastal Environment is typified by the dunes and the low areas between those, while the Tararua Terraces has steep-sided river gullies, flat plateaus and a range of elevated areas within it. Identifying those elements that characterise the domain can help guide where house sites would be most appropriately sited – generally where there is the least amount of modification or dominance over the landform and vegetation.

Therefore, building on the top of a dune is undesirable – but located in the side of a dune, where views and sunlight are still able to be obtained is preferable as the landform and, where applicable, any landscape of high amenity or ONFL backdrop to the site remains distinct. Similarly, while a flat terrace would seem to be an obvious place to locate a building, there could be sites that are more suitable than others on that terrace in terms of visibility (how visible the building is and its dominance within the landform) as well as solar access.

## 3. Orientation

How the building is orientated is important not only for optimal views but also for gaining the maximum amount of sunlight to provide energy efficient buildings. It is also important to consider what space has been allocated for outdoor living and gardens – are these adequate for the activities likely to occur within them and do they get enough sunlight and wind shelter to enable people to enjoy them?

## General Design Factors

### 4. Height of building or structure

The height of a new building or structure can not only impact on the neighbour's sun and views but also on the character of the neighbourhood of the domain. This can also result in negative impacts beyond the immediate neighbours because an excessively tall building is often visible from long distances and can adversely affect views of landscape features. The height and pitch of a roof can also impact on the building's own occupants by blocking sun from other areas of the property therefore affecting solar gain and how shaded the areas outside of the house are as a result. If the building platform doesn't provide enough space for a one-storey house, consider whether that amount of internal space is needed. For instance: how many bedrooms or living areas are really needed or is internal garaging strictly necessary? Does the size of the house reduce the amount of liveable outdoor space available? Could 'stepping back' the house or using a mezzanine levels provide the indoor space required without resulting in excessive height and result in a house that sits well in the landscape? In the case of commercial or farm buildings, or vertical structures, are these common features in the domain, are they of appropriate size and scale? Can the building or structure be adequately screened or absorbed in the landscape through planting?

### 5. Bulk of building or structures

Similar considerations are also needed in terms of how large the house appears compared to those around it. Does it complement the immediate surroundings or does it look out of place because the building dominates the property? Does it block views of others or of the landscape features that contribute to the domains' amenity status? Is there a balance between indoor and outdoor living spaces on the property? Additionally, large houses are harder to heat than smaller ones – is the house going to be energy efficient? For commercial or farm buildings the same considerations apply.

### 6. Landscape Treatment

Establishing new plantings on the site can help to mitigate the effects of a new building or structure through screening, encouraging the building to be absorbed in to the wider landscape and enhancing already existing landscape features or environments for aesthetic and ecological values. Where earthworks have occurred, planting can also reduce erosion as well as reducing the visual effects of the resulting 'scars' earthworks have on the landscape. Plantings ideally will be of those species indigenous to the area and result in improved biodiversity and environmental health. This is particularly important where waterways are contained within the site.

Consideration of the time that new plantings will take to establish and the best methods of managing and maintaining those plantings (including pre-planting treatment and weed removal) is necessary to ensure mitigation is effective and timely.

## Specific Design Guidelines

### 7. Colour

While the colour a building is painted is usually a result of personal taste, a number of matters should be considered when choosing that colour. Will the colour be so bright that it will increase the building's visibility? Will it dominate the landscape features and vegetation or will it help the building blend in? Will it reflect or absorb the sun's heat? Is it complementary to the neighbouring properties or does it contrast with them in a negative way?

### 8. Roof line/profile

This issue is as important as the height or bulk of a house because of the effects it can have on the landscape as well as on the views and solar gain of neighbouring properties. Generally in this country, steep-sided high pitched roofs are not necessary unless the property is located where snowfall is high. This style of roof line also makes utilising sunlight for interior heating difficult, whereas a mono-pitched roof angled to the north or with clerestory windows or skylights increases the amount of solar gain. Similarly, the rooflines of commercial or farm buildings can be designed to better fit the landscape while vertical structures require careful consideration of their location in terms of visibility and opportunity to mitigate visual effects.

### 9. Materials

While cost often determines the materials used in the construction of a building, usually the most appropriate materials are the simplest. Given the country's earthquake history, timber is a better choice than brick and can have a number of treatments that allow it to not only be safe and cost effective but also more complementary to natural surroundings and to the backdrop of the site. The colour a timber house is painted is discussed above, but staining, painting in complementary 'landscape' colours, or using natural weathering on particular timber (such as plywood) can result in the house being recessive in the landscape as opposed to inappropriately dominant. Metal construction – unpainted corrugated iron or treated steel panelling which is often used in commercial or farm buildings – can raise problems of reflectivity, as discussed below, while corten steel naturally rusts and appears as a more natural finish.

### 10. Reflectivity

The visual effects of reflective materials can be seen from long distances and not only present a danger for motorists if the sun's rays are reflected in to their vision but also immediately results in the building having an inappropriate dominance in the landscape. In general, to maximise solar gain, absorbent materials, such as concrete or timber are more efficient.

## BUILT FORM CONSIDERATIONS

This assessment has shown that landscape domains having a high level of amenity do so as a result of differing qualities and characteristics. Therefore, built form considerations vary for each landscape and respond to those particular characteristics or qualities identified within them. The following table is a guide that addresses the design and location of buildings, and the appropriate landscape treatments in each domain in response to that domain's individual qualities.

DOMAIN	LOCATION	GENERAL DESIGN FACTORS	SPECIFIC DESIGN FACTORS
Coastal Environment	<ul style="list-style-type: none"> <li>On side of dune or dune hollow</li> </ul>	<ul style="list-style-type: none"> <li>One story or stepped-back</li> <li>Replace or enhance indigenous plant species from the appropriate ecological district. Use sand-binding species on dunes. Screen driveways and building platform with the same.</li> </ul>	<ul style="list-style-type: none"> <li>Recessive or complementary colour schemes</li> <li>Roof profile in line with topography.</li> <li>Non-reflective materials</li> </ul>
Coastal Lakes	<ul style="list-style-type: none"> <li>On side of dune or dune hollow</li> </ul>	<ul style="list-style-type: none"> <li>One story or stepped-back</li> <li>Replace or enhance indigenous plant species from the appropriate ecological district, including sand-binding species on dunes. Screen driveways and building platforms to reduce visibility.</li> </ul>	<ul style="list-style-type: none"> <li>Low roof lines</li> <li>Avoid or screen vertical structures</li> <li>Non-reflective materials</li> </ul>

DOMAIN	LOCATION	GENERAL DESIGN FACTORS	SPECIFIC DESIGN FACTORS
Hill Country	<ul style="list-style-type: none"> <li>Avoid highly visible or prominent locations</li> </ul>	<ul style="list-style-type: none"> <li>One story or stepped-back to ensure ONFL backdrop remains dominant</li> <li>Use planting to help absorb new structures into the wider landscape with appropriate indigenous species as backdrops to buildings. Screen driveways</li> </ul>	<ul style="list-style-type: none"> <li>Recessive or complementary colour schemes</li> <li>Low or mono-pitched roof line in line with topography</li> <li>Non-reflective materials</li> <li>Screen or avoid vertical structures</li> </ul>
Manakau Downlands	<p>Non-elevated sites or against the base of the foothills</p> <ul style="list-style-type: none"> <li>Avoid areas of possible inundation</li> </ul>	<ul style="list-style-type: none"> <li>Maintain the same bulk and height of existing buildings</li> <li>Screen or absorb new structures and earthworked areas with indigenous plantings. Enhance any waterways by fencing and planting appropriate riparian species.</li> </ul>	<ul style="list-style-type: none"> <li>Recessive or complementary colour schemes</li> <li>Low or mono-pitched roof lines</li> <li>Non-reflective materials</li> <li>Screen or avoid vertical structures</li> </ul>